
Sustainable Grassland Management and Low Emission

Livestock Development Program for Results

(P181021)

**Environmental and Social Systems
Assessment**

(Draft)

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Abbreviations and Acronyms

AFWB	Agricultural, Forest and Water Resources Bureau
AHVMBs	Animal Husbandry and Veterinary Medicine Bureaus
ARM	Antimicrobial Resistance
ARABs	Agriculture and Rural Affairs Bureaus
BSL	Biosafety Level
CAB	Civil Affairs Bureau
CHAB	Cultural Heritage Administration Bureau
CNY	Chinese Yuan
CPC	Communist Party of China
CPCG	County Program Coordinating Group
CPMO	County Program Management Office
CSA	Climate Smart Agriculture
CSGMTp	Climate Smart Grassland Management Technologies and Practices
CTB	Culture and Tourism Bureau
DARA	Department of Agricultural and Rural Affairs
DCPC	Disease Control and Prevention Center
DEE	Department of Ecology and Environment
DLI	Disbursement-linked Indicator
DMS	Detailed Measurement Survey
DNR	Department of Natural Resources
DOF	Department of Finance
DRCs	Development and Reform Commission(s)
E&S	Environment & Social
EAC	Ethnic Affairs Commission
EEB(s)	Ecology and Environment Bureau(s)
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EM	ethnic minorities
EMBs	Emergency Management Bureaus
EMS	Environmental Management System
EPL	Environmental Protection Law
ERL	Environmental Conservation Redlines
ESMS	Environmental and Social Management System
ESSA	Environmental and Social Systems Assessment
FALU	Facility Agriculture Land Use
FBs	Financial Bureaus
FGBs	Forest and Grassland Bureaus
FGD	Focus Group Discussion
FMD	Foot-and-Mouth Disease
FSR	Feasibility Study Report
GHG	Green House Gas
GIIP	Good International Industry Practice
GPPC	Gansu Provincial People's Congress
GRM	Grievance Redress Mechanism
GTEGS	Grassland Technology Extension General Station
HACCP	Hazard Analysis and Critical Control Point
HC	Health Commission
HPAI	Highly Pathogenic Avian Influenza

HRSSB	Human Resources and Social Security Bureau
IFAD	International Fund for Agricultural Development
IPF	Investment Project Financing
IPM	Integrated Pest Management
LAR	Land Acquisition and Resettlement
LURT	Land Use Right Transfer
MARA	Ministry of Agriculture and Rural Affairs
MEE	Ministry of Ecology and Environment
MHRSS	Ministry of Human Resources and Social Security
MLS	Minimum Living Subsidies
MNR	Ministry of Natural Resources
MRV	Measuring, Reporting and Verification
MSAs	Market Supervision and Administrations
NDRC	National Development and Reform Commission
NFGA	National Forest and Grassland Administration
NGOs	Non-Governmental Organizations
NIMBY	Not in My Back Yard
NPC	National People's Congress
NPS	Non-point Sources
NRBs	Natural Resources Bureaus
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
OIE	Office of International Epizootic
PAP	Program Action Plan
PCPB	Public Complaints and Proposals Bureaus
PDO	PforR Development Objectives
PforR	Program-for-Results
PGGP	People's Government of Gansu Provincial
PLG	Program Leading Group
PIP	Program Implementation Plan
PIU	Program Implementation Unit
PLAC	Political and Legal Affairs Committee
PML	Pathogenic Microorganism Laboratory
POM	Program Operational Manual
PPE	Personal Protective Equipment
PPMO	Provincial Program Management Office
PPR	Peste des petits ruminants
PSC	Program Steering Committees
RAs	Result Areas
RRB	Rural Revitalization Bureau
SC	State Council
SEA/SH	Sexual Exploitation and Abuse and Sexual Harassment
SOP	Standard Operation Procedures
SSRA	Social Stability Risk Assessment
TLU	Temporary Land Use
WBG	World Bank Group
WF	Women's Federation
WRBs	Water Resources Bureaus
WSC	Water and Soil Conservation

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1. Introduction

Background

1. China's continued quest for green growth and poverty reduction is increasingly constrained by slowing economic growth and the impact of climate change. With limited water resources and arable land, China's rural areas face greater challenges, and agriculture and the livelihoods of rural people are more vulnerable to adverse climate events. In order to promote sustainable agricultural development, sustain economic growth in rural areas and strengthen climate resilience, the Chinese government issued the *National Plan for Sustainable Agricultural Development (2015-2030)* on 20 May 2015, which provides a strategic framework for all provinces and cities across the country to achieve green growth in rural area.

2. As the Plan, the government program, is aligned with the Bank's China Country Partnership Framework (CPF, FY 2020–2025), including promoting greener economic growth, the Bank intends to implement the Sustainable Grassland Management and Low Emission Livestock Development Program - P181021 (the PforR) in Gansu Province, through a Program-for-Results (PforR) instrument. The PforR aims to support the implementation of the National Agricultural Sustainable Development Plan (2015-2030) in Gansu Province to reduce greenhouse gas emissions and environmental footprint and resilience in Gansu Province in grassland and livestock sector.

Objective and Tasks of the ESSA

3. According to the Bank's PforR Environmental and Social System Assessment (ESSA) Guidance (2020 09 18), this Environmental and Social Systems Assessment (ESSA) is prepared as an instrument to address the environmental and social (E&S) risks and impacts of the PforR Program using national and local E&S legal frameworks and management systems. In the ESSA, the applicable national and local E&S frameworks and systems have been reviewed and assessed, compliance with the Bank's PforR core principles and requirements has been analyzed, and actions and recommendations have been proposed to fill the gaps to improve the implementation performance of the systems. The main tasks of the ESSA follow:

- Screen, identify, and assess the potential E&S impacts and risks of the PforR activities.
- Identify and assess the applicable national and local E&S policies and regulations.
- Assess the implementation procedures, institutional settings and personnel arrangements of the Gansu provincial and local E&S management systems.
- Assess the institutional capacity and performance of E&S management authorities.
- Propose recommendations and actions to improve the performance of the E&S management systems as required by China's regulations and the Bank's core principles.

Procedures and Methodologies of the ESSA

4. The ESSA is a common responsibility of the World Bank and the Borrower. The World Bank takes lead in the detailed work of the ESSA, while the Borrower provides information about the E&S management systems associated with the PforR and coordination in the E&S due diligence and public consultation, etc. and the organization of formal stakeholders' engagement and public consultation events at the various phases of PforR Program cycle.

5. At the **Identification stage**, the ESSA team conducted the risk screening in two steps: applying the exclusionary criteria to eliminate activities that are not eligible for PforR financing; and completing the preliminary risk rating process. At the **Preparation and Appraisal stages**, the ESSA team carried out a comprehensive ESSA in accordance with the agreed scope of work by assessing the E&S benefits, impacts and risks of the PforR activities, assessing the domestic E&S management systems in terms of applicable legal frameworks, institutional arrangements, and implementation performance, and proposing recommendations and actions to fill the gaps between the E&S systems and the Bank's PforR policies. Appropriate consultations with key stakeholders will be taken place on the draft ESSA report to agree on the recommended actions which have be incorporated into the PAP, and the final ESSA will be disclosed on the Bank and governments' websites and the government websites.

6. To ensure a successful assessment, the ESSA team conducted information collection and stakeholder

engagement by various means. Based on the comprehensive collection of all relevant data of Gansu Province and the 7 program counties/district (Lanzhou New District, Minle County & Sunan County of Zhangye Municipality, Jingchuan County & Lingtai County of Pingliang Municipality, Zhengning County of Qingyang Municipality, Guazhou County of Jiuquan Municipality), 4 key counties (district) (Guazhou County, Sunan County, Jingchuan County, Lanzhou New District) were selected as sample counties. In-depth field survey and interviews were conducted, and relevant data and information were collected by questionnaire survey and video conference in other Program counties. The selection of the sample counties (district) for field survey and more in-depth investigation took into account the following main factors: i) geographic coverage and distribution to cover different types of counties in pastoral area, agricultural area and mixed pastoral-agricultural area), ii) counties with diversified activities, and iii) inclusion of representative areas of ethnic minority (EM)-concentrated county and townships (e.g. Sunan County is a Yugur Autonomous County). The following methodologies were adopted in the ESSA preparation:

- **Secondary information collection and analysis:** Secondary information like documents provided by provincial and the 7 counties governmental authorities, online public data, and published literatures and books were collected and analyzed to understand the legal framework, institutional arrangements and implementation procedures of national and provincial E&S management systems related to the PforR. Lots of secondary data from other recent Bank-finance Programs are referred to.
- **Primary information collection and analysis:** Primary information was obtained in multiple ways, including questionnaire, virtual consultation and interview, as well as field visit. During October 2023, the ESSA team conducted a series of field visits to the 4 sample counties (district) (Guazhou County, Sunan County, Jingchuan County and Lanzhou New District), meetings with representatives of governmental agencies at provincial and county levels, farmer & herdsman, farmers collectives, enterprises engaged in livestock farms and the value chains, and representatives of typical ethnic minority-concentrated village for in-depth investigation to understand the management mechanisms of the E&S systems. Meanwhile visits to the sites of typical activities were also conducted to learn the actual implementation effectiveness of the E&S systems. 4 ethnic minority-concentrated villages in Guazhou County and Sunan County were visited and discussions were organized with residents' representatives to understand the potential environmental and social impact of the typical activities to be supported by the PforR and solicit their opinions and suggestions on the preparation and implementation of the PforR (see Appendix 9 for details). In addition, during the preparation the Bank team also conducted questionnaires and consultation activities among relevant provincial departments and 7 counties (district), which obtained a wider range of information sources and a more sufficient basis for the assessment of the environmental and social management system of the PforR.
- **Whole process stakeholders' engagement:** Throughout the PforR cycle since the identification till the ESSA preparation, the ESSA team kept communicating with a variety of stakeholders at each step to ensure that stakeholders can participate in the process in a convenient and receptive manner, during which information were provided by provincial authorities and sample counties, including relevant literature, and domestic laws, regulations, policies, standards, guidelines, plans, programs on E&S management. During the preparation of this report, the ESSA team interviewed various relevant government departments at the provincial and county levels, and consulted different representatives of potentially affected community/village leaders and residents by means of virtual conferences, etc. over 120 people are consulted with about 30% of females participated.
- **ESSA report consultation:** Soon after the first version of the draft ESSA was drafted at later November, periodic communication with the Provincial Program Management Office (PPMO) were conducted to further clarify and supplement some information; At the mid of December, 2023, the draft ESSA report was circulated through PPMO to relevant provincial and county government authorities to seek written comments and suggestions. Meanwhile, the draft ESSA report was disclosed at Gansu Provincial Department of Agricultural and Rural Affairs (DARA)'s official website on 14 December 2023 (<https://nync.gansu.gov.cn/nync/c107992/202312/173813301.shtml>). On 27 December 2023, meaningful consultation on the drafted ESSA report was conducted with government authorities, enterprises and community representatives at the provincial level and all the 7 Program counties (district). Written feedbacks on the drafted ESSA report were also made available to the E&S team. The feedback has been incorporated into the ESSA reports and the activities about data collection and consultation are listed in **Appendix 6**.

7. In recent years, the Bank has been supporting China with several programs for results, including Yellow River Basin Ecological Protection and Pollution Control Program (Henan and Shaanxi), Yellow River Basin Ecological Protection and Pollution Control Program (Gansu and Shandong), Yangtze River Protection and Ecological Restoration Program (Jiangxi, Hunan), Yangtze River Protection and Ecological Restoration Program (Hubei) and Green Agricultural and Rural Revitalization Program (Guangxi, Guizhou), Green Agricultural and Rural Revitalization Program (Hubei, Hunan). Gansu is one of the demonstration provinces in Yellow River Basin Ecological Protection and Pollution Control Program (Gansu and Shandong). ESSA conducted or being conducted for the said programs included detailed information as well as assessment of some E&S management systems that are overlap with this PforR Program, therefore, such information and assessment are referred in this ESSA report and verified through E&S team due diligence to reflect the feature of the Program and actual conditions of the PforR counties.

2. Program Description

2.1 Government Program

8. The government program which the proposed PforR Program will support is National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development, including Implementation Opinions of the General Office of the People's Government of Gansu Province (PGGP) on Strengthening Grassland Protection and Restoration under The 14th FYP for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (up to 2025), and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Driven by Livestock Production Sector (up to 2025). The Government program has six priority areas: (i) enhancing the development layout to steadily increase capacity and productivity of agriculture and livestock production; (ii) preserving cultivated land resources to promote sustainable land use in agriculture (including grasslands); (iii) saving water resource and ensure agricultural water security; (iv) control of environmental pollution to improve the agricultural and rural environment; (v) strengthening agricultural (including grassland ecosystem and biodiversity) ecological protection and restoration to enhance ecological conservation functions; (vi) establishment of institutional guarantee systems.

9. Located in north-central China, Gansu Province covers an area of 454,000 square kilometers and has a population of 24.9 million. Gansu has 17.87 million ha of grassland, one of the largest in China. Of the province's total grassland area, approximately 37% (6.7 million ha) is subject to a grazing ban, and 53% (9.4 million ha) is used for grazing. Its agriculture sector is characterized by large livestock sector, and in 2021, livestock accounted for 44% of the output value of the agricultural sector. Farming of herbivorous ruminants (cattle, sheep) has increased significantly in recent years. The sheep and cattle raised on grassland areas are typically sold after weaning to large-scale fattening enterprises in quasi-urban areas. The government's planning goal is to promote the green and high-quality development of animal husbandry in the province, promote the optimization and upgrading of agricultural industrial structure, accelerate the revitalization of rural sectors, and continue to promote the increase of farmers' income. By 2025, strive to exceed CNY 174 billion yuan and the total output value of animal husbandry in the province will reach CNY 106.2 billion yuan and¹.

10. In the process of grassland management and livestock development, Gansu Province faces the challenges of (i) greenhouse gas (GHG) emission to the atmosphere. Ruminants account for 78% of GHG emissions from meat production in Gansu, with beef accounting for 56% and sheep for 22%. If no measures are taken to reduce GHG emission intensity, the total GHG emission will increase significantly if the number of livestock continues to increase; (ii) Low output efficiency, fragmented and low-premium value chains, insufficient adoption of green and low emission technologies characterize the value chains in Gansu. (iii) grassland degradation due to various reasons. Measures need to be taken to reduce the degradation of grasslands, as well as intensify opportunities for carbon sequestration and retention, and biodiversity conservation. (iv) There is growing public concern to address issues related to food safety, and control zoonotic and animal diseases.

2.2 The PforR Program Boundary

11. **Program Financing:** The total Program financing is estimated at US\$ 1,357.0 million, of which US\$ 1,157.0 million will be financed by the provincial government and US\$ 200.0 million will be financed by the IBRD loan, to support Gansu in implementing activities in the provincial plan in the sub-areas of grassland protection and ecological restoration, green and low emission livestock production practice, management and regulatory system improvement, incentive mechanisms, and across-sectoral coordination mechanism, as well as expanding green and low emission investment in the future. The implementation period of the PforR is from 2024 to 2030, with 2022 the baseline year against which outcomes are measured.

12. **Geographic Coverage:** The PforR Program is conceived as a provincial program in Gansu Province. 7 counties (or districts) distributed in 5 municipalities/district have been selected, e.g., Lanzhou New District, Minle County & Sunan County of Zhangye Municipality, Jingchuan County & Lingtai County of Pingliang

¹ Data Source: Implementation Plan for Optimizing and Upgrading Agricultural Industrial Structure Driven by Livestock Production Sector.

Municipality, Zhengning County of Qingyang Municipality, Guazhou County of Jiuquan Municipality. The typical physical activities under Result Area (RA)1 and RA2s will be implemented in the 7 Program counties/district; the soft activities under RA3 will be carried at Provincial level, demonstrated at the counties. Location of the PforR is shown in Figure below.

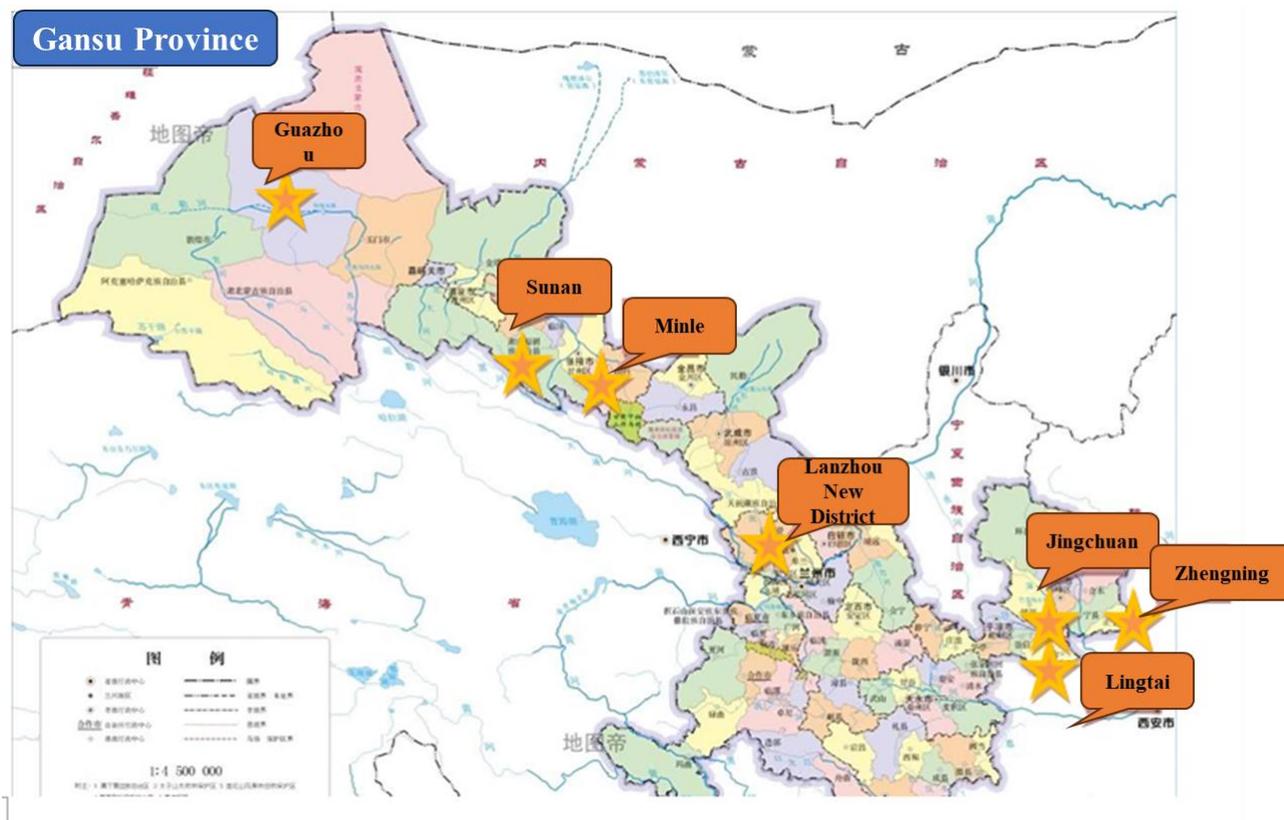


Figure 2-1 Indicative location of the PforR

13. **Brief Overview of the PforR areas:** Gansu Province, with an area of 17.87 million ha of grassland, is an important grassland province in China. It is a typical transition area for agriculture and animal husbandry. The diversity of natural factors such as climate, soil, terrain and landform determine the diversity of grassland types, complex flora and rich forage species. Among them, the available grassland area is 16.067 million ha, accounting for 33% of the province's land area, ranking sixth in China, and the artificial grassland area also ranks first in the Country for many years (the province's artificial grass stable at more than 1.53 million ha, hay production reached 14 million tons, fresh grass silage reached 18 million tons). Gansu Province is also a large province of animal husbandry in China, and herbivorous animal husbandry is one of the characteristic and advantaged sectors in Gansu. Gansu, located in the Yangtze River, Yellow River water conservation area, the birthplace of Danghe River, Shule River, Heihe River, Shiyang River and other inland rivers, the Province has multiple functions, including water conservation function, ecological function, wildlife protection function and other irreplaceable ecological regulation functions. Qilian Mountain National Park (covering 50,200 km²), more than two-thirds of which are in Gansu Province, involving Sunan County and Minle County of the Program counties (district); Anxi Extreme Drought Desert National Nature Reserve (covering 800,000 square hectares) is located in Guazhou County. Gansu is also a multi-ethnic concentrated area. In the development of livestock, at the same time, the Province is facing the challenges of grassland ecological environment protection, GHG emission reduction and environmental pollution from livestock production, multi-ethnic common development and other aspects. Gansu is now shifting from traditional agriculture and animal husbandry to green low-emission and efficient circular agriculture-livestock production. In recent years, Gansu Province has comprehensively promoted the system of grassland grazing ban and grass-livestock balance to reduce the pressure of grazing on grassland resources and ecological environment. In pastoral areas, mixed agricultural and pastoral areas, and agricultural areas, the government has explored and practiced ecological compensation mechanisms and various technical means to guide grassland free grazing to the direction of shed-feeding and large-scale standardized livestock farming, and advocated the complementary circular ecological farming of agriculture and livestock. The 7 counties (district) involved in the PforR

respectively represent pastoral areas, mixed agricultural and animal husbandry areas, and agricultural areas. The main patterns of livestock development are briefly included in Table 2-1 below.

Table 2-1 Natural & Social Condition of the PforR areas Vs Livestock Development patterns

	Pastoral Area	Mix Pastoral-Agricultural Area	Agricultural Area
The PforR counties/district	Sunan County	Guazhou County	Minle County, Lingtai County, Zhengning County, Jingchuan, Lanzhou New District
Resource endowments and constraints	Rich grassland resources, but some are distributed in the ecological conservation redline (ERL) range such as national natural protection areas; with large grassland grazing ban area; available grassland is implementing the grass-livestock balance system in order to control the number of cattle and sheep grazing within the approved range of grassland.	Rich grassland resources, but some are distributed in the ecological conservation redline (ERL) range such as national natural protection areas; with large grassland grazing ban area; available grassland is implementing the grass-livestock balance system in order to control the number of cattle and sheep grazing within the approved range of grassland. The agricultural area has the advantage of producing high-quality forage grass, providing forage resources to the county and other places outside of the county.	Grassland resources are limited, and grazing is completely or mostly prohibited. The agricultural area is mainly dry farming, with the advantage of producing high-quality forage grass, providing forage resources to the county and other places outside of the county.
Social characteristics	The only Yugur autonomous county in China. There are 3 ethnic minority-concentrated townships, with a total population of 39,300, of which ethnic minorities account for 57.5% of the total. The ethnic minorities in the county take animal husbandry as the main source of income, retain the traditional customs of nomadism, and also have farming culture.	The total population of the county is 132,800, of which ethnic minorities account for 18% of the total population. There are four ethnic minority-concentrated townships and 11 ethnic minority-concentrated villages. In terms of production and life, ethnic minority residents and Han residents are basically the same as the Han people, mainly animal husbandry (shed-feeding) and planting, nomadic traditional customs and farming culture coexist.	The minority population accounts for less than 5% of the total population of each county, and the farming culture of the Han nationality is the main one.
Farming patterns of major herbivorous livestock	<ul style="list-style-type: none"> ● Pasture grazing under conditions that do not exceed the approved capacity of livestock; ● Rotate grazing between summer pasture and winter pasture; ● Agriculture and livestock complement each other, livestock in pastoral areas borrow to graze straw field in oasis agricultural areas in winter (the so-called "off-site grazing" mode); ● Shed-feeding supplemented by forage grown in agricultural areas. 	<ul style="list-style-type: none"> ● Pasture grazing under conditions that do not exceed the approved capacity of livestock; ● Shed-feeding (or confined feeding supplemented by forage grown in agricultural areas); ● Small-scale farming, relatively concentrated large-scale farming and intensive large-scale farming farms coexist in agricultural areas; ● Small-scale agriculture and animal husbandry complement each other, and livestock in pastoral areas borrow straw field grazing in winter oasis agricultural areas 	<ul style="list-style-type: none"> ● Natural pasture grazing conditions are very limited or absent; ● Promote the cultivation of high-quality forage to support the feeding of livestock in enclosures (while meeting the forage demand outside the county/district or even outside the province); ● Small-scale agriculture and animal husbandry complement each other, and livestock in pastoral areas borrow straw field grazing in winter oasis agricultural areas; ● Lanzhou New District develop general farmland from unused land for artificial forage cultivation and develop intensive large-scale livestock farms.

14. **The PforR Development Objectives (PDO) and Result Areas (RAs):** The PDO aims to achieve a triple win of reduced GHG emissions and environmental footprint, increased resilience and increased productivity in the province's grassland and livestock (cattle, sheep and goats) sectors by: (i) promoting advanced technologies that improve the productivity of grasslands and adoption of practices for improved the grassland management to increase absorption of GHG emissions, conserve biodiversity and improve their climate resilience; (ii) promoting state-of-art technologies and practices that lower GHG emissions from

intensive livestock production systems (especially cattle and sheep); (iii) improving selected areas of livestock value chain operation and sustainability to reduce their GHG emissions and environmental footprint; and (iv) establishing enabling regulatory environment and incentive system to support introduction and future scale-up of the green and low emission investments. . To achieve the PDO, the proposed PforR Program will include three RAs:

Result Area 1 (RA1): Promoting Sustainable Management of Grasslands

Result Area 2 (RA2): Increased Sustainability and Reduced Emissions from Livestock Sector

Result Area 3 (RA3): Improved Governance System for Sustainable and Low Emission Livestock Sector Management.

15. **Typical PforR activities and expected outcomes:** The planned activities under the three government programs were screened, and those that meet the PDO requirements and are not within the E&S exclusion list are included in the PforR scope as presented in **Table 2-1**.

Table 2-2 The PforR Activities, Outputs/outcomes and Disbursement-linked Indicators (DLIs)

Typical Activities	Main Outputs/Outcomes	DLIs
RA1 - Promoting Sustainable Management of Grasslands		
1) Develop and implement sustainable community (or village) grasslands management plans aiming to maximize carbon sequestration & biodiversity conservation. Implement grassland management consistently applying Climate Smart Grassland Management Technologies and Practices (CSGMTP) aiming to maximize carbon sequestration & biodiversity conservation	1) Number of community (village) sustainable grasslands management plans developed & approved by Program county governments. 2) Hectare of grasslands where CSGMTP are being consistently applied	DLI1: Community (or village) sustainable grassland management plans for natural and balanced grasslands developed using a seven-step approach; and implementation started and on-going for at least one year (number) DLI2: Area of grasslands (natural grasslands, balanced grasslands and artificial pastures) where CSGMTPs, or their packages, where required (i.e., every season or year, as required) applied (ha).
RA2 - Increased Sustainability and Reduced Emissions from Livestock Sector		
1) Identify low emission, including advanced, technologies and practices on livestock value chain 2) Undertake livestock and poultry manure treatment 3) Support adoption of better animal health practices and development of Antimicrobial Resistance (plans) at livestock farm level	1) Manual of low emission technologies and practices developed and awareness raised. 2) Percentage of treated and recycled livestock and poultry manure 3) Share of livestock farms adopting better animal health practices 4) Developing AMR plans and implementing them	DLI3: Number of scaled livestock farms in the Program counties that have adopted at least three low emission technologies and practices, or their packages of required, from the agreed eligible technology and practices list DLI4: Share of treated and recycled livestock and poultry manure that meets effluent standards in the Program counties. DLI5: Improved animal health practices, specifically (a) vaccination rate against PPR, FMD and Brucellosis of at least 90 percent across all farms (large, medium and small); and (b) anti-microbial resistance (AMR) plans developed by selected farms in the Program counties.
RA3 – Improved Governance System for Sustainable and Low Emission Livestock Sector Management		
1) Strengthen technical capacity & regulatory framework for low emission livestock value chain 2) Establish incentive system for promoting sustainable, biodiversity friendly grassland management and low emission technologies 3) Develop Measuring, Reporting and Verification (MRV) system for grassland and livestock sector	1) Number of technical guidelines and technologies & regulatory framework developed for low emission livestock value chain 2) Number of livestock products certified with green and organic/low emission indicators 3) MRV systems developed and adopted for use at the Provincial level	DLI6: A Measuring, Reporting and Verification (MRV) system for measuring emission sequestration in the grasslands and emission reduction in the livestock value chains developed and adopted for use at the Provincial level. DLI7: Incentive system for promoting sustainable, biodiversity-friendly grassland management and low emission technologies demonstrated, demonstration results evaluated and the re-aligned incentive system established. DLI8: Increase in the number of livestock product certificates with green and organic/low emission

Typical Activities	Main Outputs/Outcomes	DLIs
		indications.
	3)	
	5)	
4)	4)	

16. In general, the PforR covers wider areas of pastoral and grasslands, agricultural and farmland, as well as mixed agricultural and animal husbandry areas. The typical PforR activities listed in the Table above, combined with the list of priority project repositories under government program provided by the seven Program counties (district), the more specific typical activities supported under the three result areas of the PforR are grouped into three main types: **Firstly, identifying, applying and extension technologies and practices**, including CSGMTP technologies for grasslands management, low-emission technologies and practice on livestock value chain development, improved animal health practices; **Secondly, soft activities**, involving participatory community or village sustainable grassland management plans development, the development of MRV system, the establishment of incentive system, and applying livestock product certificates with green and organic/low-emission indications, developing AMR plans and implementing them etc.; **Thirdly, physical activities**, including 1) construction new /technical upgrading existing infrastructures for livestock and poultry manure treatment and resources utilization under RA2; 2) infrastructure and non-infrastructure construction or upgrading/operation to be induced by or on which extension and application of climate-smart agricultural technologies and practices in grassland management, the extension and application of low-emission technologies and practices in the livestock value chain development, and improved animal health practices rely, such as; construction or upgrading of monitoring, pest and fire control facilities necessary for grassland protection or restoration, vegetation restoration and ecological rehabilitation of degraded grassland, construction of low emission artificial forage plantation base, construction and technical upgrading of small and medium-sized livestock breeding and farming facilities, upgrading of livestock slaughtering and processing, cold chain storage and transportation and market facilities, construction and technical upgrading of straw/forage processing facilities, quipping and improving laboratories for veterinary service and quality and safety testing of livestock products at county level, and construction of facilities for the collection, transfer and sanitary disposal of dead and diseased animals, etc. The program activities screening and PforR scoping are given in **Appendix 1**.

2.3 Program implementation agencies

17. This PforR Program will be implemented by Gansu province. At the provincial level, a provincial Program Steering Committees (PSC) has been established to support coordination among the government agencies at the provincial level and provide policies guidance during the Program implementation. The PSC include members of Gansu Provincial Development and Reform Commissions (Provincial DRC), the Department of Finance (DOF), the Department Agriculture and Rural Affairs (DARA), the Department Natural Resources Bureau (DNR), the Forestry and Grassland Bureau (FGB), and the Department Ecology and Environment (DEE).

18. There has been a Foreign Investment Project Management Office (hereinafter referred to as the "PPMO") seated in the Provincial DARA. The PPMO was established in 2003 and run as a public institution, staffed with 20 personnel, and 3 leadership positions. There are four sections under the PPMO, namely, the General section, and three sections for project/program. The PPMO is experienced in implementing and managing projects financed by international financial organizations and has implemented 10 projects financed by grants and loans from the United Nations, World Food Program, the World Bank, the International Fund for Agricultural Development (IFAD), the Global Environment Facility (GEF), the Asian Development Bank and others with a total amount of funding of 210 million US dollars, equivalent to CNY 1.296 billion yuan.

These projects played positive roles in promoting poverty alleviation in poverty-stricken areas, increasing farmers' income and agricultural efficiency, and promoting rural economic development, and has achieved remarkable results, which have been praised and praised by international organizations. The implementation of IFAD Rural Integrated Development Project in Gansu Province was fully affirmed and praised by IFAD President, NDRC, and Ministry of Finance. Asian Development Bank loan financed Gansu Characteristic Agriculture and Financial Service System Project was listed as the best example case for poverty reduction in the "Third Global Poverty Reduction Case Collection", and the case was loaded online as China and foreign poverty reduction case database the in the South-South cooperation poverty reduction knowledge sharing website. The PPMO has a team with members well-trained with sound project/program management skills, and accumulated rich project management experience and practices, which laid a solid foundation and provided favorable conditions for the implementation of this Bank financed PforR.

19. At the county (district) level, a county Program Leading Group (PLG) headed by responsible county leader and comprised senior officials from related sector departments will be established and a county (district) Program Management Office (CPMO) with a technical support team set up in each of the Program counties (district). The district agricultural, forest and water resources bureau (AFWB) in Lanzhou New District and county ARABs in other six project counties will be the lead implementing agency at the county (district) level while other agencies are expected to contribute to the implementation of some soft activities. Counties (district) with dedicated CPMOs will be responsible for implementing the Program activities, they will also be responsible under the coordination of PLG, for ensuring the Program Action Plan (PAP) recommended by ESSA be taken.

20. The supervision or project support mission results of past projects indicate that Gansu Province has extensive experience and a good track record in environmental and social management and monitoring in accordance with World Bank guidelines and policies, and the corresponding environmental and social management performance has been satisfactory to date. In addition, the PPMO has also recruited a group of experts, including experts in the fields of forestry and grass, biodiversity, agriculture, animal husbandry, etc., to provide technical advice and suggestions for the PforR implementation. The PPMO has designated at least two full-time employees with experience in environmental and social management of international projects. In addition to the PPMO, the CPMOs also coordinate project management through different government agencies and perform environmental and social management system functions. Each Program counties/district has assigned 5-10 people responsible for the preparation and implementation of the PforR. Training on the environment and social management of the Bank's PforR was provided to stakeholders during the preparation of this ESSA report, and further training will be conducted during the implementation phase. Specific staff are designated in the Program counties to coordinate and manage the environmental and social issues related to the activities under the PforR. These institutions and their capabilities are discussed in depth in both Chapter 4 and Section 5.3 of this ESSA report. The downstream activities and facilities triggered by the Program activities and the environmental and social risks caused by them shall be managed by the relevant government departments in accordance with the corresponding environmental and social laws and regulations. At the same time, local government departments and implementing agencies can also obtain external support in terms of training, technology and personnel, as needed, to strengthen their capacity.

3. Potential Environment and Social Effects

3.1 Environmental and Social Screening

21. **Purpose:** During the PforR concept, identification and the ESSA preparation, the Bank's core principles and requirements on E&S screening have been fully considered, and screening has been conducted to the government program activities to (1) identify and exclude the activities with significant E&S risks/impacts; and (2) define the scope of activities to carry out ESSA.

22. **Exclusionary criteria:** Following the PforR Policy and Directive, activities that are “judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people are not eligible for financing and are excluded from the Program.” More specifically, following criteria are applicable to exclude activities with significant E&S impacts:

- 1) Significant conversion or degradation of critical natural habitats or critical cultural heritage sites;
- 2) Air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems;
- 3) Workplace conditions that expose workers to significant risks to health and personal safety;
- 4) Land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions;
- 5) Large-scale changes in land use or access to land and/or natural resources (e.g. ecological resettlement)²;
- 6) Adverse E&S impacts covering large geographical areas, e.g. large-scale water (surface and groundwater) resource infrastructure, including large dams, or activities involving the allocation or conveyance of water, including inter-basin water transfers or activities resulting in significant changes to water quality or availability³
- 7) Significant cumulative, induced, or indirect impacts;
- 8) Activities that involve the use of forced or child labor;
- 9) Marginalization of, discrimination against, or conflict within or among, social (including ethnic and racial) groups⁴;
- 10) Activities that would (a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (b) cause relocation of ethnic minority groups from land and natural resources that are subject to traditional ownership or under customary use or occupation; or (c) have significant impacts on ethnic minority cultural

23. **Excluded activities:** Following activities are excluded from the PforR based on the above-mentioned criteria:

- 1) Activities that are classified as Class A (Environmental Impact Assessment Report category) according to the *National Catalogue for the Classified Management of the Environmental Impact Assessment of Construction Projects*;
- 2) Activities significant conversion or degradation of critical natural habitats (for example, activities within the scope of environmentally sensitive area⁵, particularly within the scope of ecological

² In the context of this Bank Guidance on ESSA for PforR, resettlement includes physical relocation of individuals and communities as well as the acquisition of land for program purposes. It is not necessarily helpful to define fixed numerical thresholds for “large scale” because the significance of impacts depends very much on local contextual factors. The definition of significant resettlement impacts is closely related to the extent to which the borrower’s systems align with the core principles and to the borrower’s capacity to carry out land acquisition and resettlement in accordance with policy principles and requirements. The emphasis should be on the potential for significant impacts on affected people regardless of scale, as significant adverse impacts are not acceptable to the Bank even if they affect only a small number of people.

³ Para. 16 of Bank Guidance Program-for-Results Financing Environmental and Social Systems Assessment (September 18, 2020)

⁴ Social groups refer to the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities or ethnic or racial groups are potentially affected.

⁵ Environmentally sensitive areas, as defined in the Construction Project EIA Classification Catalogue, refer to the protection areas established legally at various levels, and areas that are particularly sensitive to certain types of pollution factor(s) or ecological impact factor(s), mainly including 1) national parks, natural reserves, famous scenic spots, world culture and nature heritage sites, special marine protection areas, drinking water source protection zones; 2) other areas subject to control

protection redline⁶ (ERL) for developing forage cultivation land, and for building large-scale intensive livestock farming;

- 3) Activities that would be conducted in areas with significant legacy environmental and social issues (e.g., Ecological restoration of grasslands whose soil has been polluted by mining or industrial activities, land ownership disputes, etc.);
- 4) Activities of artificial forage cultivation with high water consumption (e.g., forage cultivation activities that result in excessive extraction of groundwater unbalanced total available groundwater, or water consumption quota for crop cultivation sector, or involve water re-allocation that may cause significant changes in water quality, water availability and local aquatic ecosystems);
- 5) Construction projects involving large-scale land acquisition and physical displacement, such as new industrial parks for livestock production and processing;
- 6) Activities involving the acquisition or occupation of permanent basic farmland and large-scale acquisition or occupation of basic grassland;
- 7) Activities that have significant livelihood impacts arising from restriction on access to land and natural resources, such as permanent prohibition of grazing and, return of farmland to grassland that may result in large-scale relocation of farmers and herdsmen or significant change of their income source;
- 8) Activities that may have a significant adverse impact on the health or safety of individuals or communities, such as ecological restoration in areas prone to geological hazards, etc.;
- 9) Activities that have significant adverse impact on ethnic minorities, such as relocation, major changes in production and lifestyle.

24. During the implementation phase, the County Program Management Office (CPMO) will be responsible for the E&S screening and the PPMO will review the E&S screening.

3.2 E&S Assessment Scope

25. The scope of E&S assessment in this report covers typical activities to be supported by the PforR (as detailed in Appendix 1 of this report), including physical activities, non-physical soft activities, and facilities related to or associated with typical activities of the PforR:

- **Identification, application and extension of technologies and practices**, for grasslands management, low-emission livestock value chain development, and improved animal health practices;
- **Physical activities under the PforR**: After excluding the above-mentioned activities, the main physical activities that the PforR will support include: **physical activities**, including 1) construction new /technical upgrading existing infrastructures for livestock and poultry manure treatment and resources utilization under RA2; 2) infrastructure and non-infrastructure construction or upgrading/operation to be induced by or on which extension and application of climate-smart agricultural technologies and practices in grassland management, the extension and application of low-emission technologies and practices in the livestock value chain development, and improved animal health practices rely, such as; construction or upgrading of monitoring, pest and fire control facilities necessary for grassland protection or restoration, vegetation restoration and ecological rehabilitation of degraded grassland, construction of low emission artificial forage plantation base, construction and technical upgrading of small and medium-sized livestock breeding and farming facilities, upgrading of livestock slaughtering and processing, cold chain storage and transportation and market facilities, construction and

requirements of ecological redlines, including permanent basic farmland, basic grassland, natural parks (forest parks, geological parks, ocean parks, etc.) critical wetland, natural forests, important wildlife habitats, natural spawning feeding, wintering, migrating grounds/corridors of important aquatic life, natural fishery ground, key areas identified for soil erosion prevention and control, decertified areas, enclosed and semi-enclosed sea areas; and 3) areas with residence, medical and health care, culture and education, scientific research and administrative offices as the main functions and cultural heritage conservation units

⁶ Ecological Protection Redline: refers to the area within the scope of ecological space and has special important ecological function that must be mandatorily and strictly protected. Ecological space is a territorial space with natural attributes and mainly functions to provide ecological service or ecological products. Natural protected areas (e.g. national park, natural reserves, and natural parks) and other areas with relatively important ecological service functions or fragile ecosystems are defined within the scope of Ecological Protection Redlines.

technical upgrading of straw/forage processing facilities, quipping and improving laboratories for veterinary service and quality and safety testing of livestock products at county level, and construction of facilities for the collection, transfer and sanitary disposal of dead and diseased animals, etc.

- **Non-physical activities under the PforR:** village/community grassland management plan, MRV system, technical guidelines, regulatory framework, incentive system and cross-sectoral collaboration mechanism, as well as relevant publicity will also be supported by the PforR. Implementation of these soft activities would have minimal or no direct adverse E&S impacts, but implementation of the outputs of some soft activities may induce indirect E&S effects; applying livestock product certificates with green and organic/low-emission indications, developing AMR plans and implementing them, etc.
- **Related and Associated Facilities/Activities:** As per the Bank's PforR ESSA Guidance, associated (or linked) activities refer to activities that would be required to meet the PforR objectives but that are not explicitly defined as PforR activities or included in the expenditure framework. The ESSA team through its field visit and environmental and social due diligence found that there are no associated facilities/activities, but may be some upstream and downstream activities/facilities related to typical activities in the PforR:
 - (1) Safety of existing reservoir dams involved in irrigating grassland management and forage cultivation;
 - (2) Harmless disposal facilities involved in final disposal of medical waste generated from veterinary labs and agro-food quality & safety testing labs. These facilities have already existed and will not be newly constructed or expended due to the implementation of the typical activities under the PforR. Therefore, these existing facilities do not belong to associated facilities/activities. Section 2.4.3 and Table 3-1 of this report will further screen the possible indirect impacts of the Program implementation on these existing related facilities in the Program counties.

3.3 E&S Benefits

26. As the PforR is to support sustainable grassland management and low emission livestock development in Gansu, China, the PforR Program, through the implementation of a series of activities involved in sustainable grassland management measures, the promotion of livestock emission reduction, animal health, and the construction of facilities, technological extension and mechanism building to improve livestock productivity and efficiency, is expected to have significant environmental and social benefits, related in following aspects: (1) In green environment aspect, the PforR will benefit to the protection and restoration of the grassland ecological environment, so that the grasslands in the protection of natural protected areas (including Qilianshan National Nature Reserve) and natural habitats and can rehabilitate their forms with nature's power, and give full play to its important functions such as water conservation, soil and water conservation, wind and sand fixation, carbon sequestration and oxygen release, climate regulation, air purification, and ecological diversity conservation; (2) In low emission aspect, the PforR will benefit to the reduction of livestock emissions and multi-purpose utilization of livestock manure while improving livestock productivity and efficiency, promoting mutual benefit of livestock and agricultural development that tend to be more green, ecological and circular. The PforR will benefit to the improvement of comprehensive recovery and utilization rate of crop straw feed, improvement of fertility and carbon sequestration potential of farmland and forage planting land, and improvement of the agricultural and rural ecological environment; (3) In health and safety aspect, the PforR will implement the concept of "one health" in the Program areas so as to further improve the livestock productivity and efficiency and protect the health and safety of practitioners, communities and public through the prevention and control of animal diseases and the construction of related facilities, service upgrading and measures improvement. Overall, the PforR will great contributions to the sustainable development of green agriculture in China, enhanced people's awareness and ability of green agriculture and livestock development, and generating substantial global public goods.

3.4 Potential E&S Risk and Impacts

27. The PforR activities are all aimed at protecting and restoring grasslands, improving the productivity

& efficiency of animal husbandry, reducing pollutants and GHG emissions, and ensuring the health and safety of humans and animals. However, certain negative environmental and social impacts will also be generated during the implementation and operation, which will be comprehensively described in the following sections. The assessment of environmental and social risks of various typical activities is shown in **Appendix 2**. The adverse environmental and social impacts of these activities can be effectively mitigated with appropriate and well-established mitigation measures (as listed in **Appendix 8** of this report, but not limited to), during construction and operation.

3.4.1 Direct Impacts

28. The physical activities (infrastructure construction, and non-infrastructure operations activities) to be supported under the PforR will involve agricultural land use, land transfer, temporary land use, construction waste water and waste gas emission, noise and vibration interference, etc. during construction. During operation of animal husbandry production activities, grassland restoration, artificial forage plantation, etc., certain direct environmental and social adverse impacts will be generated. These adverse impacts are analyzed as follow.

29. Major environmental risks/impacts:

- ◆ **During construction:** Civil work construction of above-mentioned physical activities will generate nuisance of dust, noise and spoil material from excavation, material handling and transportation, etc. Exhaust from construction vehicles may also cause certain air pollution in the construction site. These pollutions are short-termed, site-specific and can be effectively mitigated with good construction management practice (such as water-spraying on construction sites, covering of bulk materials and transportation trucks, use of low noise equipment/method, no nighttime construction etc.)
- ◆ **During operation:** The completed facilities (such as animal farms and farming zones, slaughtering and meat and dairy processing, feed processing, comprehensive utilization of animal waste, related laboratories, storage and transportation of livestock products and marketing, etc.) or existing facilities on which the technologies & practices will be applied, extended or adopted may pose corresponding environmental problems during operation, including:
 - Solid waste (waste feed, animal waste, and carcasses), sludge from wastewater treatment plants/facilities installed for slaughterhouses, feed processing plants, veterinary labs, animal product quality and safety testing labs;
 - Wastewater: first, the non-point source effluents due to runoff from feed (including silage) storage, loading, and unloading, livestock housing, feeding, and watering, waste management facilities, and areas of land application of manure; second, production wastewater generated during animal slaughter and meat processing; third, effluent from animal disease control and food safety laboratories; and fourth, wastewater generated in the process of feed processing, livestock and poultry manure treatment and resource utilization.
 - GHG and air emission: First, ammonia (e.g. management of animal waste), methane and nitrous oxide (e.g. animal feeding and waste management), odors (e.g. animal housing and waste management), bioaerosols, and dust (e.g. feed storage, loading, and unloading, feeding, and waste management activities). Second, the odor and exhaust gas, dust and particulates produced during slaughtering and meat processing; Third, waste gas from animal disease control and food safety testing laboratories; and Fourth, dust produced during feed processing.
 - Hazardous Materials: are used throughout the livestock production cycles, e.g. (a) disinfecting agents spread on animals and sheds; (b) antibiotic used for control of animal disease, (c) hormonal products use for animal breeding and milk production); (d) occupational and public health risks from pathogens, hazardous biological waste and chemical waste from veterinary laboratories and livestock quality testing laboratories, etc.
 - Pesticides: the potential pollution to the environment and the health and safety effects of the use of pesticides (for the control of pests in livestock and sheds and enclosures, pests and diseases of artificial forage grass, grassland pests)

- Special risk materials (SRM) are tissues in cattle that contain the agent that may transmit bovine spongiform encephalopathy (BSE), transmissible spongiform encephalopathy (TSE), or scrapie disease if reprocessed into animal feed. The human disease, Creutzfeldt-Jakob Disease (vCJD), may result from human consumption of products from animals infected with BSE. However, such SRM have never been reported to be found in China in MARA's successive assessment reports. The strengthened monitoring of these sensitive materials in China come back to negative and monitoring & testing of these SRM are only done at labs at national level. The veterinary service labs at county level which the PforR activities will support will not involve the testing the SRM, except providing assistant to the national labs when sampling.
- In addition, artificial forage plantation, degraded grasslands restoration requires watering, application of pesticides and fertilizers, which will lead to the consumption of water resources, agricultural non-point sources (NPS) pollution, and soil compaction and so on. Non-point source pollution caused by the use of chemical agents, pesticides for the prevention and control of grassland pest will bring negative impact on environment. Expansion of grazing lands or upgrading of existing grazing lands could involve the introduction of imported grass and fodder species that may have wider effects on biodiversity

These adverse impacts during operation can be significantly reduced by the adoption of climate-smart farming techniques, the adoption of low-emission technologies and measures in the PforR and the local practice and promotion of the green livestock development model of circularity in crop and livestock production.

30. **Major ecological impacts:**

- **During Design:** some typical activities under RA1 will involve grasslands in the Program area, and a certain area of natural grasslands is within the scope of ERL (and important natural habitat) of natural protected areas such as Qilianshan National Park. In the restoration of grassland vegetation, improper design will potentially introduce invasive alien species and affect grassland biodiversity. However, the typical activities designed will not involve any construction of facilities that produce constructive and harmful ecological functions in the protected area, and will be designed to restore degraded grasslands of different types (such as mountain meadow, desert grassland, etc.) by careful attention to avoid the introduction of alien species with strengthened strengthen monitoring and early warning capacity to prevent and control of grassland pests and fire disaster and thus to increase biodiversity in grasslands areas. The implementation of activities under RA1 will and to effectively promote the conservation of the grassland eco-environment and natural habitat and the play of ecological functions.
- **During Construction:** Some project counties (district), through land levelling and soil improvement will develop state-owned unused gentle slope hilly areas to relatively flat crop land for artificial forage cultivation and green ecological land use, in line with the principle of ecological priority, in order to improve the natural conditions of soil erosion in local areas. The construction of some small-medium scale facilities may involve topsoil & vegetation stripping and earthwork excavation and backfill, borrow pits, resulting in soil erosion without taking any preventive measures during construction. with the implementation of water and soil conservation scheme to be developed before the construction, provided by China's Soil & Water Conservation Law, Measures for the Administration of Water and Soil Conservation Schemes for Production and Construction Projects and adopting of good construction management practices to effectively reduce, and will be restored after the end of the construction.
- **During Operation:** The cultivation of artificial forage, improper use of ploughing machinery or technology, or the imbalance of nutrients application will cause potential soil fertility decline, soil compaction, soil degradation and loss. The use of fertilizer can lead to run off and eutrophication of nearby water bodies. The facilities to be used in crops cultivation will adopt climate-smart agricultural technologies, which will have little adverse impact on the natural ecosystem, but will improve the quality of the regional ecosystem due to the

various crops protection, water conservation, soil conservation measures and agricultural technology extension proposed by the PforR.

31. **Major health and safety risks:**

- ◆ During Construction: There are potential health and safety risks in excavation, and driving machinery and vehicles, etc.
- ◆ During Operation:
 - Occupational health and safety (OHS) hazards in the day-to-day operations of livestock breeding and farming include: Exposure of breeders to physical hazards and potential physical injuries from livestock slaughtering and processing machinery, exposure to chemical hazards (pesticides applied to livestock and sheds, organic dust in sheds, pathogenic substances such as bacteria, molds, mites, viruses, etc., detergents, disinfectants used in slaughtering and processing workshops, related research and laboratory chemicals, etc.), and the dangers of exposure to confined spaces.
 - Use of pesticides (for controlling pests from animals, livestock sheds, artificial forage and grasslands) may pose health and safety risks to farmers/herders and communities.
 - Animal disease-causing agents can spread rapidly, especially in intensive livestock operations. Animal diseases can enter a facility with new animals, on equipment, and on people, which not only directly affect the health of animals, but also pose risks of affecting the health and safety of operators who have direct contact with animals and the surrounding communities in animal infectious diseases, especially the zoonotic infectious diseases.
 - Quality vulnerabilities in livestock products (such as residual animal antibiotics, residual feed additives, contamination or adulteration during slaughter, processing and marketing) can affect food quality and threaten public health and safety.
 - Animal welfare in animal husbandry: The high density low activity, space of livestock farms or farming zones with harsh environmental conditions in intensive livestock operation, the mistreating of animals and frightening behaviors of livestock stockman during animal feeding, transportation and slaughtering will easily causes animal sickness with low immunity; The use of prohibited antibiotics, "clenbuterol" or other drugs in feed, or the excessive use of trace elements will cause the residue of harmful substances in animal products, which will affect animal health, lead to high incidence of animal disease, reduce breeding efficiency, and affect the quality of agro-food products, which in turn will affects public health and safety of agro-food consumers.

Risks to the health and safety of practitioners and the public from improper disposal of hazardous biological and chemical waste in veterinary laboratories and animal product quality testing laboratories and improper disposal of sick & dead animals;

These health and safety risks will be significantly mitigated and improved through the construction and upgrading of livestock sheds, animal disease prevention and control facilities and the provision of services by government-led and entrusted professional organizations, as well as through the adoption and practice of better animal health practices and the "One health" concept to be adopted by the PforR.

32. **Major social impacts:**

33. Through screening and analysis of the activities in the Gansu provincial plans which proposed to be included in the PforR, those activities with potential high social risks have been excluded from the PforR boundary. Meanwhile, referring to the experience of local projects during implementation and implemented, it is considered that the remaining activities may involve a certain social impacts or risks, but can be managed effectively through existing social management system. Different types of social impacts are analyzed as follows:

- **Labor impacts:** Concerning physical activities such as grassland protection and ecological restoration projects, construction and upgrade of facilities for livestock farming, livestock manure treatment and resource utilization, straw processing, and disease prevention and control, there are potential labor disputes and occupational health and safety risks to

workers and communities during the project construction process. For example, the construction may involve recruiting temporary labor from surrounding communities, settling daily expenses without signing labor contracts or service contracts, posing a certain risk of labor disputes. Construction may involve mechanical operation, moving, fire and electrical work and wastewater, waste gas, and noise, etc. are generated during the process. It may pose a threat to the health and safety of construction workers if it's failed to take appropriate protective measures or operation properly. In the operation and maintenance of the mentioned facilities and equipment, labor issues may arise, including contractual workers and community workers. The operation and maintenance of facilities and equipment may also pose a potential risks to workers' occupational health and safety, such as pesticide and fertilizer application in the process of forage cultivation, agricultural machinery operation, biogas and odors generated by livestock manure treatment facilities, zoonotic diseases such as brucellosis and anthrax during the operation & maintenance (O&M) of livestock farming facilities (farms, small zones, cooperatives, smallholders), animal inspection and quarantine, slaughter, and processing facilities, etc.

- **Community impacts:** During the construction of related facilities, the entry of external construction workers into the community may pose a risk of spreading infectious diseases. The wastewater, waste gas, solid waste generated during construction and operation, as well as the movement of machinery and vehicles, may impact the daily life, road safety of surrounding communities, causing a Not in My Backyard (NIMBY) effect. For example, the odor generated by livestock farming facilities (zones, cooperatives, smallholders) and the associated livestock manure treatment facilities may have a certain impact on the living environment of the surrounding communities. Improper control of animal diseases may also lead to zoonotic diseases such as Brucellosis and Anthrax being transmitted to residents in the surrounding communities. The implementation of grassland protection and ecological restoration projects involves short-term grazing bans on some grasslands, affecting the livestock farming of local farmers and herders, such as a reduction in grazing area, the need to purchase supplementary forage from the market, the construction of pens and fences, or a reduction in the number of cattle and sheep raised.
- **Land use and involuntary resettlement:** During the preparation of this report, the activities with potential high social risks have been excluded from the PforR scope, e.g., activities involving large-scale land requisition and house demolition. Based interviews, consultations, and site visits, the project activities will not involve permanent land requisition and house demolition. The main land use type of the activities supported by the PforR include: i) Facility agricultural land use (FALU), such as livestock farming and affiliated facilities, straw processing facilities, and inspection and quarantine facilities. ii) Land use right transfer (LURT), including taking land as an investment to a certain activity and receiving land equity annually, mainly involved in activities such as forage planting and grain-to-feed conversion. iii) Upgrading and renovation on existing facilities without involving new land use, such as grassland fire prevention and disaster prevention facilities, livestock trails, large-scale livestock farms, slaughter and processing facilities, cold chain logistics, wholesale markets, etc. iv) Temporary land use (TLU), some facilities may require a small amount of temporary land during construction for the storage of equipment, materials, camps, etc. Also, temporary occupation of some grasslands is needed for the restoration of grassland vegetation.
- **Livelihood impacts:** The project land use like FALU and LURT will have a limited impacts on farmers and herders' livelihood, as land or grassland leasing fees are negotiated and paid annually to the land/grassland contract rights owner by land users based on market price. In the implementation of grassland protection and ecological restoration activities in Sunan and Guazhou, the grazing bans and achieving balance between grass and livestock may lead to a reduction of grazing areas, shift from cattle and sheep free-range to stall feeding, and increase of costs. However, the grazing bans is usually of a short duration, typically within five years. After the grassland vegetation has recovered to a certain extent, farmers and herders can return to the grassland for grazing. During the grazing bans, the government provides subsidies to farmers and herders. Local financial funds are allocated to build houses, enclosures, grass storage sheds, and supporting facilities for farmers and herders.

Potential adjustments to livestock farming methods are managed through policy support and trainings. In other project counties (district), the grassland has already been mostly banned from grazing, and there are no farmers or herders engaged in livestock farming activities in these areas. Therefore, the implementation of grassland protection and restoration activities is not expected to have a significant impact on the livelihoods of farmers and herders.

- **Impacts on ethnic minorities:** Among the 7 project counties (district), there is one ethnic minority autonomous county, and there are 8 EM-concentrated townships, and 137 EM-concentrated villages and communities, mainly located in Guazhou County and Sunan Yugur Autonomous County. Guazhou County has 4 EM-concentrated townships and 11 EM-concentrated villages and communities, primarily composed of Hui and Dongxiang people. Their economic and social conditions are generally similar to the Han, mainly engaged in livestock farming (confined) and crops planting, with only a small portion of residents practicing free-range grazing of cattle and sheep on the grassland. Therefore, the impact of grassland protection and ecological restoration activities on the livelihoods of EM residents in Guazhou County is relatively minor. All the 3 townships and 102 villages of Sunan Yugur Autonomous County are EM-concentrated township and villages/communities, mainly Yugur, Tibetan, and Mongolian. The county has a large area of grassland, and the primary income sources of EM residents is livestock farming on the grassland. Therefore, the implementation of grassland protection and ecological restoration activities may have a certain impact on the livelihood of EM residents in Sunan County. However, as mentioned above, the government provides corresponding policy support, funding, and training, and such impacts can be effectively managed or minimized. The ethnic minorities in other 5 project counties mainly live in a scattered and mixed with the Han. There are one EM-concentrated township and 19 EM-concentrated villages and communities in the remaining 5 project counties. Their economic and social conditions are generally the same to the Han. All activities under the PforR will not involve the acquisition of land and other assets from EM residents. There is a specific management system for EM related affairs in place at the provincial, and county (district) levels in terms of EM protection and development policies, institutional arrangements. Therefore, the EM people will not be excluded from the beneficiary population. The national and provincial governments also provide relatively favorable financial and policy support to ethnic minority areas compared to other regions. For activities to be implemented in EM concentrated areas, meaningful consultation with minority residents should be carried out when it is in design, construction, and maintenance, so as to avoid or minimize significant negative impacts on them and respect their cultures and customs.

3.4.2 Indirect Impacts

34. In view of the possible indirect environmental and social impacts of the **related facilities** of the PforR identified in Section 3.2 above, the environmental and social team held discussions with relevant bureaus/agencies in the four sample counties in October 2023, and conducted on-site inspections of forage cultivation sites, animal veterinary workstations at county and township levels for better understanding of the business connection procedures with upstream and downstream facilities. Questionnaire survey was also done particularly to the downstream medical waste disposal operators who handles medical waste from veterinary labs. On this basis, E&s screening of related facilities were made and assessed. The residual risks rating (see Table 3-1) show that the environmental and social management system of these related facilities/activities is mature, capable of managing the environmental and social impact of such facilities or activities, and the residual environmental and social risks are controllable.

Table 3-1 Review of Indirect E&S Impacts of Related Facilities

Existing Related Facilities/Activities	Potential E&S Impacts and Management Measures	Residual E&S Risks Rating
Dams safety of reservoirs used for irrigating artificial forage land.	China has a sound dam safety management system, including laws and regulations at the national and Gansu Provincial levels, such as the Water Law, Regulations on Reservoir Dam Safety Management, and Measures for Dam Registration, as well as implementation details at the local level. Reservoir operation and maintenance manual, emergency responsive	The general E&S risk is Moderate to Substantial.

Existing Related Facilities/Activities	Potential E&S Impacts and Management Measures	Residual E&S Risks Rating
	preparedness plan, instrument plan and other management documents have been prepared for each reservoir as per the requirements of laws and regulations that are strictly observed and implemented. All reservoir dams are regularly reinforced or upgraded. Except for some small reservoirs operated by the village level, other reservoirs have set up special reservoir management units and are staffed with sufficient operation and maintenance personnel. Prior to drawing water for irrigating forage, Water users of enterprises, cooperative, farmer households must obtain water use permission from by local Water Resources Bureaus (WRBs), who are responsible for verifying that irrigation water consumption is controlled within the scope of the sectoral water quota of Gansu Province, and is responsible for supervising the management of dam safety or reservoirs	
Facilities for disposal of medical or hazardous wastes from veterinary laboratories	The State has corresponding regulations, policies and norms, including the Law on the Prevention and Control of Solid Waste Pollution, the Regulations on the Management of Medical Waste, the Measures for the Management of Medical Waste in Medical Institutions, the Classification Catalogue of Medical Waste, and the Technical Specifications for the centralized disposal of Medical Waste, etc., to manage the facilities and operating institutions that undertake the transfer and disposal of medical waste from veterinary labs. Feedback materials of the seven counties to the E&S team's questionnaires reveals that all counties/district are within the service coverage of the regional centralized and specialized medical waste disposal centers (the centers) that have been built and put into operation under the guidance of the government, and are equipped with special vehicles with obvious medical waste labels. These centers are operated by professional enterprises/agencies who provide service to collect medical waste temporarily stored in barrels at the turntable of veterinary laboratories and transfer the waste to the Center's disposal site with facilities newly build and operated in compliance with national sectoral environmental standards of Technical Specification for Centralized Disposal of Medical Waste (Trial) (2003). When building these disposal facilities, E&S management systems, such as Environmental Impact Assessment (EIA), Social Stability Risk Assessment (SSRA), and environmental acceptance-check were applied. These centers, holding pollution discharge permits issued by EEBs and subject to the regulatory management of EEBs. During the transferring process, the medical waste from veterinary labs, sterilized by autoclaving and temporarily stored in yellow barrels marked clearly with "medical waste", are hand over to the medical waste disposal center, recorded in details. Five unified bills are used during transferring process avoid oversights and be ready for verification by regulatory agencies. Agreements are signed between the veterinary lab operators and the medical disposal centers for regularly collect, transfer and disposal of medical waste and connected by the unified bill transferring system.	The general E&S risk is Substantial.

3.4.3 E&S Impacts Potentially Induced by Soft Activities

35. In addition to physical activities, there are some soft activities under the PforR, such as the preparation and implementation of sustainable community (village) grassland management plan, the establishment and improvement of policies, technical standards and incentive mechanisms for low-emission livestock farming, the provision of relevant technical promotion and training, and the extensive public awareness of the concept of "One health", establishment of cross-sectoral collaboration mechanisms for veterinary and public health environments, etc. The implementation of these activities will help to improve the eco-environment management level of the Program counties (district), reduce GHG emissions, strengthen capacity for managing the PforR, improve the skills of farmers and herdsmen in green and low-emission livestock production, and bring about long-term favorable E&S effects. In addition to a small number of health and safety risks involved in the employment of researchers and outdoor research activities, the implementation of soft activities does not involve any physical construction, there will be little, or even no direct E&S risks/impacts. However, the implementation of research results supported by some non-physical soft activities may induce the development of downstream physical projects, thereby indirectly generating environmental and social risks and impacts. For example, the development and implementation of sustainable community (village) grassland management plans and the extension of low-emission livestock farming technologies and standards may have an impact on the livestock farming patterns of community farmers and herders, e.g., shift from free grazing to shed-feeding, from smallholder farming to livestock farming zones with centralized & standardized operation and run by cooperatives or collectives, inducing a series of construction activities, such as construction of facilities for grasslands protection and management, for housing livestock, hayshed, axillary

facilities for water & power supply, forage cultivation, building or upgrading slaughterhouses, meat processing & distribution facilities, etc. These induced activities will have indirectly E&S impacts, such as dust, noise, solid waste, waste water, topsoil disturbance, soil erosion, land use/occupation, labor force use, construction safety risks, community safety risks, etc. Technologies such as precision feeding may increase the cost of livestock production for buying forage. Off-site grazing in oasis straw fields may have some impacts (e.g., livestock waste disposal, animals' diseases and zoonotic disease prevention and control) on the living environment of residents in agricultural areas. These risks are predictable and can be prevented or mitigated through existing environmental and social management systems, technologies and measures. Nevertheless, the implementation of such policies, mechanisms and technical standards will ultimately improve grassland ecology, reduce carbon emissions and have long-term environmental and social benefits. In general, the non-physical soft activities of this PforR will not cause significant negative E&S impacts, but due to their wide implication coverage, they may cause downstream indirect environmental and social risks and impacts, and inter-governmental departments/bureaus are involved, so the comprehensive E&S risks is Substantial.

3.4.4 Accumulative E&S Effects

36. During the implementation, different types of activities under the PforR (including such physical works as the construction of facilities related to grassland management, livestock breeding and farming, artificial forage land construction and cultivation, livestock manure treatment and comprehensive utilization, livestock slaughtering and processing and value-chain extension related facilities, animal health and disease prevention and control, livestock product quality testing service facilities, etc.) and other Government planned projects/programs in the region (such as large-scale intensive livestock farms, livestock industrial park construction driven by leading enterprises, high-standard farmland construction, returning farmlands to forest/pasture/grasslands, building a system of "multi-points" protected natural areas, and develop national parks, nature reserves and natural parks, enhancing wildlife protection capacity, beautiful countryside construction, etc.) and other foreign funded project/programs (such as the World Bank financed Yellow River Basin Ecological Protection and Pollution Control Program-Gansu and Shandong) may be geographically and temporally implemented in parallel or alternately with each other. This might cause certain synergistic effects or cumulative impacts on the natural or social environment of a larger region of Gansu province positively and negatively.

37. To assess and address the gaps of cumulative impacts of multi-projects/program activities on eco-environment that construction project EIA unable to address, Since 2009, under China's EPL and EIA Law, the *Regulation on Plan-EIA* (detailed in Section 4.2) has been enacted, with requires that programs/plans related to land use and special sector plan (including agriculture, animal husbandry development), plan-EIA shall be carried out to identify, analysis, projection and assess cumulative impacts potentially caused by implementing the said plan by taking the resource and environmental carrying capacity into consideration, and proposing preventive and mitigate measures to reduce and minimize the adverse cumulative impact. Very similar to the project EIA, plan-EIA are also required to conduct public consultation, reviewed by experts panel and approved by competent EEBs and be followed-up. The plan-EIA is the entry point and important part of strategic environmental assessment (SEA) instrument carried out at the early planning stage in China, which places environmental factors at the front of major macroeconomic decision-making chain by controlling and managing cumulative eco-environment impact, and proposing more reasonable strategic arrangements for major development. In practice, the "three lines, one list"⁷ environmental zoning management mechanism (detailed in Section 4.2 & 4.4) is in place and provides a hard constraint for the implementation of strategic and plan-EIAs, the approval of construction project EIA, and provides a basis for space control for other environmental management work. Gansu Provincial Government in 2020, printed and circulated the Opinions of the People's Government of Gansu Province on the Implementation of the 'Three Lines, One List' *Eco-environment Zoning Control Access List* which was approved by MEE, further detailed by governments at municipal level, and implemented at county level. In the livestock sector, to manage the cumulative pollution from different scales of livestock farms and farming zones or smallholders, local livestock and poultry farming pollution control plans are required to be prepared to delineate prohibited zones, restricted zones, and farming zones to properly site farms to guide the construction, expansion, or upgrading of livestock and poultry farms or manure treatment facilities at county level. In the ecological conservation and grassland management sector,

⁷ The "three Lines and one list" refer to the redlines of ecological protection, the bottom lines of environmental quality, the ceiling lines of resource utilization, and the ecological environment access list based on the environmental carrying capacity, The implementation of the "three-lines, one-list" eco-environment zoning control is an important work to promote differentiated and refined management in different regions/zones, strengthen the prevention and control of the ecological environment at the source, and promote green and high-quality development.

the mechanisms of the plan-EIA, “three lines, one list” environmental zoning management, ERL, etc., will work together to effectively to prevent encroachment of natural reserves and minimize adverse impact on and pollution to ecologically sensitive areas protected in the natural reserves

38. From social perspective, firstly, the land use for these activities or projects, no matter whether they will be supported or not supported by the PforR, must follow local overall spatial planning of natural land, which can ensure that the time-specific land use must be managed as required and not be carried out disorderly. Secondly, these activities/projects will be carried out in different counties or district, most of the activities are related to the upgrading of existing facilities so it is unlikely to have many development and construction activities taken at the same time in the same place, and their site-specific E&S impacts are unlikely to become significantly cumulative (e.g., synergistic dust, noise, wastewater, solid waste, vegetation disturbance, interference of migrant workers to local communities, price changes, etc.). Thirdly, based on the PforR nature and the E&S exclusion criteria, the PforR activities will not include large-scale infrastructure that may adversely affect the production and livelihood of local residents, nor will it involve socially sensitive areas. Civil works will not involve large-scale land acquisition and physical displacement, and the risk of cumulative adverse E&S impacts arising from interaction with other investment projects in the Program province is low. Therefore, the implementation of the PforR will not significantly increase the regional negative cumulative social impacts. Finally, under the synergistic effect of the above related projects, the PforR will achieve cumulative net benefits. For example, the joint action of project/activities in relevant Gansu provincial government plans and typical activities to be supported by the PforR, e.g., rural revitalization, beautiful rural construction, animal husbandry development, livestock manure treatment and comprehensive utilization, ecological protection and restoration, etc., will bring significant social benefits to the region. The benefits include the improvement of livestock products value chains, the protection of the quality and safety of livestock products, the improvement of community health, and the improvement of the living environment. In conjunction with the implementation of other Bank-financed projects/programs in the region, soft activities such as policy and technical standards improvement, technological extension and training will further strengthen the institutional capacity, regulatory system and management capacity for sustainable grassland management and low-emission livestock development in Gansu Province, resulting in long-term positive benefits.

39. Regarding to the identification and management of cumulative social impacts related to planning activities, firstly, in accordance with the "Interim Regulations on Major Administrative Decision-Making Procedures" (2019), when formulating significant plans in areas such as economic and social development, decision-makers are required to predict the potential cost and benefits, E&S impacts, conduct risk analysis, identify risks and propose risks mitigation measures and management plans; secondly, following the "Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim)" (ZBF [2012] No. 2), for major decision-making matters that directly concern the immediate interests of the people, have a wide-ranging impact, and are prone to triggering social stability issues, a social stability risk assessment (SSRA) is mandatory. Prior to making decisions, a comprehensive analysis of potential social risks and risk rating is conducted, considering the interplay between development and social stability, overall and local considerations, as well as the relationships among different stakeholders. Specified measures are then taken to prevent and mitigate risks in a proactive manner.

3.5 E&S Assessment and Risk Rating

40. **Risk criteria:** Following the E&S exclusion procedure, the ESSA team assessed the E&S risks/impacts of the PforR activities, using four criteria: 1) likely E&S effects; 2) E&S contextual risks; 3) institutional capacity and complexity risks; and 4) political and reputational risks. All activities involved in the PforR have been analyzed against the above four criteria, which concludes that these activities have different levels of E&S risks, a few of them have potential High risks and need to be excluded, while others have substantial, moderate, or low risks and can be mitigated through proper E&S management measures. The following sections will provide general E&S assessment and risk screening and the details are presented in Error! Reference source not found..

3.5.1 Likely E&S effects

41. To achieve the PDO, the PforR Program designed a series of activities for sustainable grassland management, construction and upgrading of low-emission animal husbandry facilities, and improvement of

sustainable and low-emission livestock management and supervision system. The PforR will bring huge positive benefits to the environment and society in the region, including improving ecological and environmental management capacity, improving grassland productivity and climate adaptability, reducing GHG emissions, improving livestock breeding technology and efficiency, improving animal disease prevention and control and accidents responsive capacity, reducing the incidence of zoonotic diseases among employees, ensuring human health and safety, and ensuring the quality and safety of livestock products, etc. and eventually improving overall capacity of rural areas in Gansu in addressing challenges brought by climate change and slower economic growth. Although, activities with high E&S risks have been excluded. typical E&S adverse impacts under the Program include: (1) construction risks/ impacts which will be from small to medium-scale construction and are temporary and site-specific, such as nuisance dust, noise, wastewater, solid waste, vegetation and habitats disturbance, soil erosion, limited land acquisition or use, labor use and OHS issues; (2) operational risks/ impacts which will be from the operation of the constructed facilities and application & extension technologies promoted under the PforR, such as the potential discharge/emission of various wastes that may adversely pollute water, air, endanger farmland & grassland ecology, spread pathogenic microorganisms, agro-food contaminated or spoiled, or contain large amounts of residual hazardous substances poses risks to community health and public safety and bring risks to workers and public health; (3) the short-term impact to the farmers' livelihood by artificial forage plantation, degraded grasslands restoration. The proposed non-physical activities may have some downstream E&S impacts, but it's anticipated to be positive in the long term. In general, these adverse E&S impacts are neither significant nor irreversible, some are moderate and some are still substantial and can be easily identified, avoided, minimized, and mitigated through known and demonstrated technologies and good management practices. Given the large varieties of activities under the PforR in a broad coverage of 7 counties (district) in Gansu Province, the overall E&S effects risk associated with the PforR is rated **Substantial**. |

3.5.2 E&S contextual risks

42. Except that those non-physical soft activities will result in the application of the results to provincial-wide agricultural and pastoral areas at scale, the physical activities will be implemented in 7 Program counties (district) under 5 municipalities. Considering China's strict management mechanisms about nature reserves, ecological conservation redlines (ERL) and the environmental exclusionary principles under this ESSA, the physical activities and climate-smart agricultural technological & practice application & extension activities under RA 2 under the PforR are unlikely to be taken place in ecological sensitive areas, instead, they will be taken place in rural agriculture areas, quasi-urban areas. Only some activities under RA1-sustainable grassland management that are designed to be conducive to conserving and restoring ecology and fully compliance with China's legal framework for natural protected areas are likely to be taken place in ecological sensitive area. After excluding high environmental and social risk activities such as newly construction of large-scale intensive livestock farms/industrial park and newly construction of large-scale slaughterhouse, the activities related to livestock production under PforR will help reduce the pollution loads of existing livestock production without additional pollution load to the region. The construction of artificial forage cultivation land will be beneficial to increasing the green space and vegetation coverage. The forage cultivation itself is planned to be managed with climate-smart technology, and the intensity of use of chemical fertilizers and pesticides will be significantly reduced compared with other crops' cultivation. However, nature reserves, ERL and ethnic minority-concentrated areas still will be involved in the Program areas, therefore, the overall rating of the E&S contextual risks is **Substantial**.

3.5.3 Institutional capacity and complexity risks

43. The E&S risks/impacts management will involve some government authorities, such as DRCs, finance bureaus (FBs), agriculture and rural affairs bureaus (ARABs) and animal husbandry and veterinary medical bureaus (AHVMBs), ecology and environment bureaus (EEBs), natural resources bureaus (NRBs), FGBs, water resources bureaus (WRBs), health commissions (HCs), emergency management bureaus (EMBs), market supervision and administrations (MSAs), human resources and social security bureaus (HRSSBs) etc. These authorities perform regular E&S management as per national/local laws and regulations with sufficient institutional organization, staffing, and budgets, and they will fulfill their responsibilities for implementing the PforR and managing the related E&S issues under the guidance of national and provincial governments and the coordination of the PPMOs. The PforR activities are distributed in 7 counties (district) under 5 municipalities of Gansu Province covering a number of sectors, so strong coordination and cooperation

among the related authorities are necessary to well manage the activities and the associated E&S impacts. The PforR involves some innovative activities that are cross-sectoral nature, and can't be easily implemented by ARABs alone. Therefore, the PSC at provincial and PLGs at county (district) level were established to strength governmental inter-sector coordination. As for managing the Program's E&S risks, the DARA has capacity and experience in managing the E&S risk, proved by managing other projects funded by international financing institutes. The county (district) CPCG and CPMOs will provide further coordination to support PPMO who are technically supported by experts' panel at provincial and county levels to strengthen coordination vertically and horizontally among government authorities and act as advisory function. Meanwhile, all relevant sector authorities must implement activities in accordance with their respective responsibilities under the guidance of the government's program. Given the large number of governmental authorities from provincial, municipal, county and grass-root levels, lots of efforts will be needed and PSC and PLGs were established to coordinate them, the overall rating of the institutional capacity and complexity risks is **Moderate to Substantial**.

3.5.4 Political and reputational risks

44. The PforR will help contributing the demonstration role of Gansu Province in grasslands management, green and low-emission livestock production, and enhancing "one health" concept. The objectives of the PforR are consistent with national and local policies and plans with high political security. Local people will largely benefit from the PforR and will make efforts to support it. There will be minimal or no political risk to the PforR, which has been demonstrated by a variety of similar projects that were implemented in the past. Compared with the developed countries, there is still certain gaps in animal welfare protection in China. In recent years China has enacted numerous animal husbandry laws and regulations and established system of animal welfare standards, including national standard, sectoral standards and association standards (as listed in subsection 4.5.1). Animal welfare awareness-raising by strengthened publicity, education and training are recommended in the E&S PAP to mitigate potential reputation risks associated with the proposed PforR activities. Therefore, the overall rating of the political and reputational risks is **Low to Moderate**.

3.5.5 Overall Risk

45. As a conclusion, the overall rating of the E&S risks associated with the PforR is **Substantial**.

4. Environmental Management System Assessment

4.1 General Principles

46. The Bank's PforR ESSA Guidance provides six core principles for E&S system assessment, of which the first three are associated with environmental management systems (EMSs):

Core Principle #1 is about environmental assessment and management. Program EMSs are designed to promote environmental sustainability in the program design; avoid, minimize, or mitigate adverse impacts; and promote informed decision-making relating to a program's environmental effects (social impact assessment and management will be described in Chapter 5).

Core Principle #2 is about natural habitat protection. Program EMSs are designed to avoid, minimize, or mitigate adverse impacts on natural habitats resulting from the program (physical cultural heritage protection will be described in Chapter 5).

Core Principle #3 is about health and safety management. Program EMSs are designed to protect public and worker safety against the potential risks associated with (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards. The risk management of animal health & animal infectious diseases of zoonotic diseases and some quality management of animal products under the PforR are assessed in Chapter 4; The risk management of human infectious diseases of zoonotic diseases and the quality management of some animal products are assessed in Chapter 5.

47. Corresponding to these principles, China also has a sound eco-environmental protection management system, including:

- **A comprehensive eco-environmental management system**, under the legal framework with the Environmental Protection Law (EPL) as the fundamental law, supported by a series of specific laws & regulation covering environmental impact assessment, resources & ecological conservation/protection, water and soil conservation (WSC), pollution prevention and control, a special chapter on agricultural resource, grassland resources and agro-environmental protection under Agricultural Law, Grassland Law, Animal Husbandry Law, Clean Production Promotion Law and other fields. These laws & regulation empower various authorities, led by EEBs and assisted by multi-sectoral authorities to regulatory manage these environment issues.
- **Animal Health and safety Management System**, under a set of laws, regulations, standards and guidelines governed by the Animal Husbandry Law, the Animal Epidemic Prevention Law and the Agricultural Product Quality Safety Law and a series of separate laws, including the Law on the Prevention and Control of Infectious Diseases, the Law on Import and Export Animal and Plant Quarantine, the National Biosafety Law and the Food Safety Law, etc. covering the field of livestock and poultry production, epidemic prevention of captive animals, management of animal health and safety activities, promotion of livestock production, prevention and control of zoonosis, protection of public health and human health, especially livestock products and food safety. The system is similar to or even more complex than environmental protection and pollution control system.

48. China has a sound environmental management system to be consistence with the Bank's core principles. Since the promulgation of its first Environmental Protection Law in 1979 (trial) and its amendment in 2014, which establishes the legitimate position of environmental protection as national strategy, China has gradually established and improved a comprehensive environmental management legal framework, with the environmental protection law as the fundamental comprehensive law, consisting a series of specific laws, departmental bylaws, thousands of technical guidelines and standards at national level and numerous local regulations and implementation plans covering marine environment, wetland protection, clean production promotion, environmental impact assessment (EIA), water and soil conservation (WSC) pollution control, natural environment and biodiversity conservation, resource protection and utilization, and special geographic areas/watershed protection. China has also signed a series of international conventions on environmental protection, including those on climate change. Environmental protection provisions in the relevant laws relating to the sustainable grasslands and livestock development that the PforR focused, special chapters or

articles in the Agricultural Law, Grassland Law, Animal Husbandry Law, Animal Epidemic Prevention Law, and Agricultural Product Quality Safety Law on agricultural resources, grassland resources, ecological environmental protection of agriculture and animal husbandry, management of animal epidemic prevention activities, and quality and safety of livestock products are put in place. In general, this legal framework can be roughly grouped into three categories: (1) laws and regulations issued by National People's Congress (NPC) and/or the State Council (SC); (2) administrative regulations, standards and technical guidelines issued by various ministries; (3) regulations, polices and standards issued by local people's congress and local government.

49. These legislations have basically put in place a legal system for eco-environmental conservation and resource protection and management including grassland, natural habitats, farmland, pollution prevention and control, WSC, energy management, circular economy promotion and ecological civilization construction as the mainstay and established following environmental protection management system and sustainable agricultural and livestock development system that are continuously improved and run under an institutional structure led by EEBs supported by multi-sectoral authorities.

■ *Eco-environmental conservation and pollution control management systems*

- **Ecological compensation system:** a new type of environmental management system aiming at preventing damage to the ecological environment and enhancing & promoting the sound development of the ecological system, targeting at those engaged in production, management, development and use that have or may have an impact on the ecological environment, with the rehabilitation and restoration of the ecological environment as the main content, economic regulation as the means, and law as the guarantee;
- **Ecological protection redlines (ERL) system:** The core system for ecological protection and the guarantee line for ecological security;
- **Environmental monitoring system:** Monitoring data is the basic data for objective evaluation of environmental baselines and the results of implementing environmental management;
- **EIA system:** As an important system in China's environmental protection legal system, EIA is a mandatory legal system covering both government programs/plans⁸ and construction projects. The plan-EIA consider the comprehensive environmental impact of multiple construction projects that are planned, solve the significant cumulative impact of the project EIA by considering resources and environmental carrying capacity. The construction project EIA focus on relatively short-term adverse effects of an individual development or construction activity on the environment to determines whether a construction project can be carried out. It is also the first gate of environmental management to implement the principle of prevention and control over incremental pollution;
- **Pollutant discharge permitting system:** A management system for fixed pollution sources, polluters shall discharge their pollution in accordance with the pollutants discharge permit requirements. Discharge pollutants are not allowed without holding pollutant discharge permits;
- **Total loads control and regional limited system:** The total loads control of key pollutants is a pollution control method and system that distributes pollutant discharge indicators to a certain region and controls the amount of pollutant discharge within prescribed limits
- **Joint prevention and control system:** A coordination mechanism established to prevent and control environmental pollution and damage ecology on focus areas across administrative areas and across watersheds;
- **Government responsibility system:** Strengthening government's responsibility for environmental protection to establish a backhand mechanism and encourage local governments to properly strike a balance between economic development and environmental protection;
- **Information disclosure and public participation system:** Information disclosure and public participation, as social supervision mechanisms, are conducive to solving social conflicts at the source;

⁸ Programs/plans refer to land use plans; plans to develop and utilized region, a river basin, and a sea area; as well as special plans for industry, agriculture, stockbreeding, forestry, energy, water resources, traffic, urban construction, tourism, and natural resource development.

- **Environmental protection regulatory and "three simultaneous"⁹ system of construction project:** In order to prevent the construction project from causing damage to the ecological environment, the environmental protection facilities in the construction project that are legally required to prepare EIA documents shall be designed, constructed and put into operation simultaneously with the main facilities of the project;
- **WSC management system and the "three Simultaneousness" system :** To prevent soil erosion and ecological damage caused by productive and construction projects, China has established a water and soil conservation (WSC) system under the management of WRBs. For any productive construction project that may lead to soil erosion, the responsible project implementation unit (PIU) should prepare a WSC scheme and submit it to the corresponding WRBs for approval. For any construction project that is subject to WSC scheme, the related WSC works, must be designed, constructed, and put into operation simultaneously with the main facilities of the project;
- **Environmental public interest litigation system:** An important weapon for environmental protection. Social organizations and procuratorial organs that meet the conditions may file lawsuits in court against acts that pollute the environment, destroy the ecology and harm the social and public interests;
- **Responsibility system for environmental complaints and visits:** citizens, legal persons or other organizations are permitted and regulated to report their situation of environmental protection, and make suggestions, opinions or complaints to the competent EEBs at various levels by means of letters, e-mails, faxes, telephone calls or visits, which shall be handled by the EEBs in accordance with law. The EEBs at all levels shall establish and improve the responsibility system for environmental complaint reporting. In accordance with localization management, hierarchical responsibility, safeguard the public's right to know, participate in and supervise environmental protection work, implement the principles of openness in government affairs, conduct in-depth investigations and studies, seek truth from facts, properly handle and solve problems.
- **Legal liability system:** Increased penalties to illegal acts that pollute environment and damage ecology.
- **Other systems:** include planning, standards, eco-environmental taxes and fees, ecological compensation, emergency response to ecological and environmental emergencies, soil pollution risk control and remediation, classification of wildlife protection, and access list for important ecological functions.
-
- **Sustainable grassland, green agricultural & livestock development management systems**
 - Establishing an institutional system for green agricultural development, and put in place a negative list for agricultural industry access, a system for fallow crop rotation, and a system for the utilization of livestock and poultry manures as resources;
 - Establishing green ecological oriented agricultural & livestock subsidy system and giving priority of central government investment in rural and agriculture & livestock sector;
 - The system of basic grassland protection, the system of grass-livestock balance, and the system of grazing ban: these are the three important systems for grassland protection. They not only protect grasslands as an essential natural resource and ecological security barrier, but also make rational use of the basic means of production on which farmers and herdsman rely for survival and development, and coordinate ecological protection of grasslands with the sustainable development of grassland & livestock production;
 - Grassland ecological compensation system: under the ecological compensation system, China's grassland ecological compensation mechanisms include compensations for grassland ecological conservation, restoration, and cultivation;
 - Establishment and improvement of a modern livestock production system: vigorously develop standardized large-scale farming, promote intensive and large-scale livestock production equipped

⁹ The "three Simultaneousness" refers to the environmental protection facilities shall be designed, constructed, and put into use simultaneously with the main facilities

with modern facilities and equipment such as automatic feeding, automatic drinking water and pollution control, technological extension and application of reduced use of mineral element and feed additives, and promote clean farming techniques such as water, material and energy saving and advanced practical technologies such as dry manure removal and microbial fermentation, so as to reduce emissions at source;

- Slaughter pigs at designated sites, in Gansu province, slaughter pigs, cattle, sheep at designated sites
-

■ **Management systems for animal health and epidemic prevention & control**

- Risk assessment system for animal epidemics and compulsory immunization system: Carry out risk assessment of animal epidemics, formulate and publish measures and technical specifications for the prevention, control, purification and elimination of animal epidemics. Compulsory immunization shall be carried out against animal epidemics that seriously endanger livestock production and human health.
- Sites certificate and employment institution license system: animal farms, animal isolation sites, animal slaughtering and processing sites and sanitary treatment sites of animals and animal products shall meet the conditions for animal epidemic prevention stipulated in the ***Measures for Reviewing Conditions for Animal Epidemic Prevention***, and obtain the certificate of animal epidemic prevention conditions; Institutions and units engaged in animal diagnosis and treatment, veterinary drug production, veterinary drug management, and the establishment of livestock and poultry farms/communities need to apply for, and shall be reviewed by the AHVMBs with the conditions prescribed by laws and regulations, and shall issue the corresponding production/business license after being deemed qualified.
- Classified management on pathogenic microorganism laboratory (PML) with unified biosafety standard: The State classify PMLs (including veterinary laboratories) into 4 categories according to the infectivity of pathogenic microorganisms and the degree of harm to individuals or groups after infection; the State divide PMLs into BSL-1, BSL-2, BSL-3 and BSL-3 based on according to the biosafety protection level of the laboratory against pathogenic microorganisms, and in accordance with the provisions of the national standards for laboratory biosafety. BSL-1 & BSL-2 labs shall not engage in experiments on highly pathogenic microorganisms.
- Veterinary laboratory examination system: The State implements an examination system for veterinary laboratories. Only veterinary laboratories that have passed the examination and obtained the examination certificate may undertake the tasks of diagnosis, monitoring and testing of animal epidemics.
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50. Based on environmental and social screening as described in Chapter 3, and following the Bank’s core principles and China’s environmental management requirements, the Bank’s ESSA team classified the domestic EMSs that handle the environmental issues related to activities on sustainable grassland management, low-emission livestock development, animal health, disease prevention & control and agro-food safety under the PforR into four groups: (i) EIA and follow-up management system, (ii) pollution control system, (iii) eco-environmental conservation management system and (iv) health & safety management system. The legal and regulatory framework, management mechanism, institutional arrangement, and implementation performance for each system are reviewed, assessed, and compared with the Bank’s core principles to identify any gaps to address during the PforR implementation. The EMSs that will serve the PforR activities are listed in **Table 4-1**.

Table 4-1 Domestic EMSs Applicable to the PforR

Bank core principles	Potential impacts form typical activities	Domestic EMSs	Responsible authorities
1. Environmental assessment and management	<p>- During construction: The construction of above-mentioned facilities during construction will generate temporal and limited adverse environmental impact, such as nuisance dust, noise, traffic disturbance, etc.,</p> <p>- During operation:</p>	<p>- EIA and follow-up management system</p> <p>- Pollution control system (livestock</p>	<p>- Ecology & Environment Bureaus (EEBs)</p> <p>- Agriculture and Rural Affairs Bureaus</p>

	<p>1) once the constructed facilities (e.g., livestock breeding and production sheds, slaughter houses, meet/dairy processing plants, feed processing plants, manure treatment and integrated utilization facilities, agro-food storage, distribution and marketing facilities, etc.) are put into operation, following types of wastes will be discharged/emitted to potentially pollute water, air, endanger farmland ecology, spread pathogenic microorganisms, and bring risks to public health:</p> <ul style="list-style-type: none"> ● Solid waste (waste feed, animal waste, and carcasses), sludge from wastewater treatment plants installed for slaughterhouses, feed processing plants, veterinary labs, animal product quality and safety testing labs; ● Wastewater: first, the non-point source effluents due to runoff from feed (including silage) storage, loading, and unloading, livestock housing, feeding, and watering, waste management facilities, and areas of land application of manure; second, production wastewater generated during animal slaughter and meat processing; third, effluent from animal disease control and food safety laboratories; and fourth, wastewater generated in the process of feed processing, livestock and poultry manure treatment and resource utilization. ● GHG and air emission: First, ammonia (e.g. management of animal waste), methane and nitrous oxide (e.g. animal feeding and waste management), odors (e.g. animal housing and waste management), bioaerosols, and dust (e.g. feed storage, loading, and unloading, feeding, and waste management activities). Second, the odor and exhaust gas, dust and particulates produced during slaughtering and meat processing; Third, waste gas from animal disease control and food safety testing laboratories; and Fourth, dust produced during feed processing. ● Hazardous Materials: are used throughout the livestock production cycles, e.g. (a) disinfecting agents spread on animals and sheds; (b) antibiotic used for control of animal disease, (c) hormonal products use for animal breeding and milk production); (d) hazardous biological waste and chemical waste from veterinary laboratories and livestock quality testing laboratories, etc. ● Special risk materials (SRM) are tissues in cattle that contain the agent that may transmit bovine spongiform encephalopathy (BSE), transmissible spongiform encephalopathy (TSE), or scrapie disease if reprocessed into animal feed. The human disease, Creutzfeldt-Jakob Disease (vCJD), may result from human consumption of products from animals infected with BSE. <p>2) Artificial forage cultivation, degraded grasslands restoration requires watering, application of pesticides and fertilizers, which will lead to the consumption of water resources, agricultural NPS pollution, and soil compaction and so on. Non-point source pollution caused by the use of chemical agents, pesticides for the prevention and control of grassland pest will bring negative impact on environment. Expansion of grazing lands or upgrading of existing grazing lands could involve the introduction of imported grass and fodder species that may have wider effects on biodiversity</p>	<p>production pollution control, artificial forage and feed processing pollution control, and pollution control for veterinary lab and animal products quality testing lab, etc.)</p>	<p>(ARABs) and Animal Husbandry Veterinary Medicine Bureaus (AHVMBs)</p>
<p>2. Natural habitat protection</p>	<p>During design: site selection might trigger the local ecological protection redlines;</p> <p>During construction: The construction of facilities and forage plantation land may destroy vegetation and disturb habitats. A large amount of land leveling may cause water and soil erosion, but the operation period is beneficial to improve the natural conditions for regional water and soil conservation.</p> <p>During operation:</p> <ul style="list-style-type: none"> • overgrazing may contribute to soil losses because of severe erosion, and a reduction in soil productivity caused by alteration of the vegetation composition and associated organisms in grasslands. 	<p>- Eco-environment conservation management system (natural and grassland eco-environment conservation and restoration, water and soil conservation)</p>	<p>- Natural Resources Bureaus (NRBs) - EEBs - ARABs - Forest and Grassland Bureaus (FGBs) - Water Resources Bureaus (WRBs)</p>

	<ul style="list-style-type: none"> livestock with access to creeks, rivers, and other natural water sources may cause environmental damage by contaminating the water with animal waste, destroying riparian habitat, and eroding the stream banks. 		
3. Health and safety management	<p>Livestock production, especially in the context of large-scale, high-density intensive farming practices, involves potential health and safety risks from the lax control of animal diseases, including infectious diseases, and some zoonosis pose potential threats to human health.</p> <ul style="list-style-type: none"> - Animal diseases have a negative impact on livestock health and livestock productivity; - Breeding personnel and operators of animal disease prevention and control may be exposed to physical hazards, chemicals, raw materials, narrow Spaces, etc.), bringing occupational health and safety risks; - Impact on community health and agro-food health and safety: zoonotic human diseases may spread animal diseases to communities around animal farms and animal farming zones; Public ingestion of animal foods, dairy products, etc. that are contaminated or spoiled, or contain large amounts of residual hazardous substances (growth hormones, residual pesticides, antibiotics, etc.) poses risks to community health and public safety; - Risks to the health and safety of practitioners and the public from improper disposal of hazardous biological and chemical waste in veterinary laboratories and animal product quality testing laboratories; - Health risks to farmers/pastoralists and communities from pest control in grasslands, the use of pesticides and packaging waste in artificial forage cultivation. 	- Health and safety management system	<ul style="list-style-type: none"> - Health Commissions (HCs) - Emergency Management Bureaus (EMBs) - ARABs (AHVMBs) - EEBs - Market Supervision Administrations (MSAs)

4.2 EIA and Follow-up Management System

4.2.1 Applicable legal framework

51. Based on the “Environmental Impact Assessment Law” and combined with a series of relevant regulations, standards and guidelines, China has established a comprehensive EIA and follow-up management system for construction projects, including EIA, "Three Simultaneousness", environmental acceptance check for construction completion, etc. This system is under development towards a project life-cycle environmental management for construction projects

Table 4-2 A List of Applicable Laws and Regulations on EIA and Follow-up

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
Environmental Impact Assessment Law	SC approved in 2002 and 2 nd amended in 2018	It's required that when preparing government programs/plans ¹⁰ and construction projects, potential environmental impacts should be early identified, screened, and assessed, mitigation measures should be recommended, and follow-up monitoring and supervision should be conducted. It also stipulates basic requirements on EIA classification, EIA approval hierarchy, and ban from construction without EIA approval, etc. Entities, experts, and individuals are encouraged to participate in public consultation on an EIA. EIA must be objective, open and fair and comprehensively consider the possible impacts of planning or construction projects on various environmental factors and the ecosystem they constitute, so as to provide a scientific basis for decision-making.
Construction Project Environmental Protection Management Regulations	SC issued in 1998, amended in 2017	It reinforces the requirements on EIA screening and classification, EIA approval hierarchy, “Three Simultaneousness”, and environmental acceptance check for construction completion, etc.
Plan-EIA Regulations	SC issued in 2009	The Regulation provided that plans or program related to land use, integrated development plans or programs in a region/river basin/sea

¹⁰ Government programs/plans refer to land use plans; plans to develop and utilized region, a river basin, and a sea area; as well as special plans for industry, agriculture, stockbreeding, forestry, energy, water resources, traffic, urban construction, tourism, and natural resource development.

		area, sectoral development plan (including industrial, agricultural, animal husbandry, etc.), the planners of such plans or programs shall have the plan-environmental impact assessed. The plan-EIA shall focus on the analysis, prediction and assessment of the overall/cumulative impact of planning implementation on the ecosystem of the relevant region, basin and sea area, and the long-term impact on the environment and human health, so as to prevent environmental pollution and ecological damage at the source, and promote comprehensive, coordinated and sustainable development of economy, society and environment.
Regulation on Pollution Prevention and Control of Scaled Livestock and Poultry Production	SC issued in 2013	New construction, reconstruction or expansion of livestock and poultry farms and farming zones shall conform to the development plans for animal husbandry, pollution prevention and control plans for livestock and poultry farming shall meet the conditions for animal epidemic prevention & control, and EIA shall be conducted. For large scaled livestock and poultry farms and farming zones with significant impact on the environment, EIA reports shall be prepared; For other livestock and poultry farms and farming zones, environmental impact registration for EEBs endorsement shall be practiced.
Measures of Public Consultation in EIA	Ministry of Ecology and Environment (MEE) issued in 2018	If a construction project or a government program is likely to have potential significant impacts on the environment, it is required to carry out public consultation during preparing EIA report. The Measures clearly specify the relevant content and time limit to be disclosed by the PIU construction projects, and two-times disclosure, one announcement to be made by the approval authorities.
Construction Project EIA Follow-up Supervision Regulations	Ministry of Environmental Protection (former MEE) issued in 2015	From EIA preparation till project commissioning, EEBs should oversee whether mitigation measures are implemented as per EIA instruments and approval documents. After the project becomes operational, EEBs should check whether relevant environmental regulations are complied with and whether post EIAs are conducted.
Regulations on Environmental Acceptance Check for Construction Completion	MEE issued in 2017	The Project Implementation Unit (PIU) is responsible for undertaking environmental acceptance check for construction completion, preparing an investigation or monitoring report, and disclosing it to the public. The project is not allowed to start commissioning until proper mitigation measures and pollution control facilities are put in place with a pollutant discharge permit obtained following relevant requirements. The project should not start formal operation until the mitigation measures and/or the pollution control facilities have passed the environmental acceptance check.
Construction Project EIA Classified Management Catalogue	2021 edition	Criteria are given for classifying environmental impacts of 173 types of projects in 55 sectors into three levels (Class A – high and significant, requiring preparation of EIA report; Class B – small to moderate, requiring the preparation of EIA form; and Class C – minor, requiring registration by filling in a form), based on project nature, project scale, and contextual environment.
Fixed-Source Pollutant Discharge Permit Classification Catalogue	2019 edition	The guidelines for classification of pollutant discharge permits for 112 specific industries/sectors were provided; Considering the amount/volume of pollutants produced, the amount of pollutants discharged and the degree of impact on the environment, the specific criteria for dividing the focused management, simplified management and registration management are put forward.
EIA Technical Guidelines	/	China has developed more than 20 sets of EIA technical guidelines, including the General Guidelines and a series of specific guidelines on different environmental factors such as surface water, groundwater, soil, air, noise, and ecology and on different industries such as water engineering, hydropower, coal, pharmacy, and steel, etc. The General Guidelines provides fundamental guidance on the preparation EIA preparation documents (namely, the EIA report and EIA form) in terms of alternatives analysis, positive and negative impact assessment, long-term and short-term impact assessment, direct and indirect impact assessment, cumulative impact assessment, mitigation measures, cost estimate, and environmental management and monitoring plans, etc.
Technical Specification on Pollutant Discharge Permit Application and Issuance;	/	China has developed more than 70 guidelines on how to apply and issue pollutant discharge permits, including General Guidelines and a series of specific guidelines for important industries (e.g., non-ferrous metals, food processing, coal, pharmacy, steel, livestock and poultry farming, municipal sanitation, and water and wastewater treatment, etc.). The entities subject to the permits are required to submit pollutant discharge information, conduct pollutant monitoring, keep environmental management track records, and prepare implementation reports. The guidelines also recommend good technical practices on prevention and control of wastewater, waste gas, odor, and solid waste, etc.
Guiding Opinion on Ecology	MEE issued in	It requires that ecological functions be kept from degrading by applying

and Environment Zoning Management under the "Three Lines and One List" Mechanism (Trial)	2021	ecological protection redlines ; the environment be protected from deteriorating by holding the environmental quality bottom lines ; natural resources be conserved by keeping the utilization ceiling lines ; and construction or operation activities that are to be carried out in any ecology and environment zones follow the lists of environmental entry criteria to strengthen pollution control. The "Three Lines and One List" mechanism provides a strong fundament for implementing strategic EIAs, program EIAs, and project EIAs and a basis for other environmental work.
Notice on the issuance of the "Ecological Protection Red Line Ecological Environment Supervision Measures (Trial)"	MEE issued in 2022	Within the scope of ERL, human activities are prohibited in principle in the core protected areas of nature reserves, and development and productive construction activities are strictly prohibited in other areas. Under the premise of complying with current laws and regulations, only limited human activities that do not cause damage to ecological functions are allowed, except for major national strategic projects.
Guiding opinions on further strengthening the supervision of the ecological environment "double random and one open"	MEE issued in 2021	The "double random, one open" ¹¹ is the basic mean and method of ecological environmental supervision activities, supplemented by focused supervision, and a regulatory mechanism based on credit supervision. This method can effectively reduce the interference to the normal production and business activities of enterprises, reduce the burden on enterprises, and promote the institutionalization and standardization of ecological environment.
Management Measures on Environmental Impact Registration and Endorsement	MEE issued in 2016	The PIU shall fill in the environmental impact registration form for county EEB's endorsement for construction projects with minor environmental impact as pre requirement of Construction Project EIA Classification Catalogue, construction project. The registration can be made on an online Filing Management System established and publicized by MEE. The PIU shall login the entity's real information and submit the filled in environmental impact registration form at the said online system.
Measures on Environmental Complaints	MEE issued in 2021	This measure is promulgated in accordance with Regulations on Complaint Letters and Visits and relevant environmental legislations to standardize the forms and channels of environmental complaints and visits, the acceptance of environmental complaints and visits, the handling and supervision of environmental complaints and visits. The administrative head is required to assume responsibility for environmental complaints and visits.
Gansu Provincial and local Regulations		Under the national legal framework, Gansu Province and local governments have also formulated more specific and stricter local regulations/measures, such as: Gansu Provincial Environmental Protection Regulation (GPPC issued in 1994 and amended in 2020), Opinions of the People's Government of Gansu Province on the Implementation of the "Three-lines, One-List" Ecological Environment Zoning Control (2023), Provisions of Gansu Provincial DEE on Approval Procedures for Construction Projects' EIA Documents (amended in 2023), Catalogue Construction Projects' EIA Documents Subject to Gansu Provincial DEE's Review and Approval (2023 edition), Implementation Rules of Gansu Province for the Administration of Pollutant Discharge Permits (Trial) (2021), etc. These local regulations, measures have specified specific requirements and procedures for the spatial control of site selection for construction projects in Gansu Province and the classification and approval of EIA documents, providing a legal framework for the EIA of construction projects and the environmental management throughout the life-cycle of projects.

4.2.2 Implementation Mechanisms and Procedures

52. To implement above-mentioned relevant laws and regulations for EIA, China has established and is gradually improving the relevant implementation mechanism, which are listed in Table 4-3 below.

Table 4-3 Mechanisms for EIA and Follow-up

Implementation Mechanisms/ Procedures	Description
Environmental impact screening and classification	To implement the EIA system, China has established a detailed and comprehensive catalogue for screening environmental impacts and classifying EIA processes proportional to project nature, location, scale, environmental context, etc. Environmental impacts of construction projects are classified into three levels, namely Class A – high and significant impacts, Class B – small to moderate impacts, and Class C - minor impacts. Correspondingly, the

¹¹ Double random and one open" refer to, in the supervision process, random inspection objects are selected, law enforcement inspectors are randomly selected, and the random inspection situation and investigation results are disclosed to the public in a timely manner

	<p>EIA instruments are divided into three categories, namely EIA report (Class A), EIA form (Class B), and EIA registration (Class C). With the exclusionary criteria, the PforR will not include any activities requiring EIA reports preparation, the physical activities to be supported by the PforR may include grassland management, land levelling for artificial forage cultivation, livestock breeding and farming, livestock slaughtering and processing, veterinary service labs, agro-food quality testing labs, dead and diseased animal sanitary treatment, organic fertilizer production by use of manure, etc. These physical activities are subject to EIA-forms preparation or environmental impact registration for EEB's endorsement. Their environmental classification is listed in Table 4-4. Other activities with minor adverse environmental impact, no EIA will be required as per domestic EIA management requirement. This section only gives an initial analysis of EIA classification related to the PforR activities and specific types of EIA instruments applicable to each construction activities will be determined by local EEBs during the PforR implementation.</p>
<p>Key procedures for processing EIA</p>	<p>EIA preparation: PIUs are responsible for the quality and conclusions of EIA instruments for their projects, and the agencies engaged to prepare the EIAs also have certain responsibilities. Under the national EIA engineer qualification system, chief technical personnel that are in charge of preparing EIA instruments must be certified EIA engineers who have passed the national exam and gotten related certifications and be the fully-time staff of the EIA consultant agency.</p> <p>EIA technical review: as the approval authorities, EEBs may organize technical agencies to go through a technical review of EIA-report and EIA-form. Technical review of EIA report for a Class A project is usually undertaken by a panel of at least 3 independent experts who will be randomly selected from EEBs' expert database. EIA forms for Class B projects can be reviewed by either an expert panel or by staff of EEBs.</p> <p>EIA approval: EIA report and EIA form should be submitted to competent EEBs for approval, while a simple EIA registration can be done online by PIUs themselves. EIA instruments (reports and forms) are approved by EEBs at different levels proportional to nature and scale of the corresponding projects, magnitude of the environmental impacts, and sensitivity of the environmental context, etc.</p> <p>Public consultation and information disclosure: In EIA process, PIUs (or under the assistance of EIA agencies) should carry out public consultation as required or needed, generally through website, newspapers, placard discussing meetings, hearing, s etc. The PforR activities do not include Class A projects that are subject to mandatory public consultation. While for Class B projects, public consultation is not compulsory, but local EEBs would usually suggest the PIUs to conduct proper public consultation. In addition, it's legally required that EIA documents and approval comments be disclosed to the public for all construction projects requiring the preparation of EIA report or EIA form.</p>
<p>EIA Follow-up and supervision</p>	<p>Environmental 'Three Simultaneousness': Design, construction, and operation of a pollution control facility that is to support a construction project must be carried out simultaneously with the project main parts. The project design report must include a specific chapter to specify mitigation measures, pollution control facilities, and necessary cost estimates. To ensure the pollution control facilities be built properly as designed, the PIU is responsible for including the physical works of pollution control facilities into civil works contracts and ensuring construction/installing schedule and budget to be sufficient. The PIU is also responsible for implementing other mitigation measures that are recommended in the EIA instruments and approval documents. The project is not allowed to start operation until all pollution control facilities and mitigation measures have passed the environmental acceptance check for construction completion.</p> <p>Environmental management during construction: PIUs are responsible for implementing proper measures to mitigate environmental impacts during construction. As per China's "Standard Construction Bidding Regulations", a bidding document should include an environmental protection chapter to include the mitigation measures that are recommended in the approved EIA instruments. A standard civil work contract will also include an environmental protection chapter to clarify the contractor's duties on environmental management such as implementing the mitigation measures. After the contract is signed, the contractor should develop construction implementation programs which should include environmental management plans that are reviewed and agreed upon by the PIU and supervision engineer prior to construction commissioning. During construction, the PIU and supervision engineer will oversee the implementation of the environmental management plans.</p> <p>Environmental acceptance check for construction completion: When construction of a project is completed, the PIU (or under the assistance of qualified agencies) should carry out a specific check for environmental acceptance, by undertaking tests/investigations, preparing an environmental acceptance check report, and seeking relevant experts' comments. The PIU should disclose the environmental acceptance check report within 5 working days once the report is completed and keep it open to the public for at least 20 working days. Within 5 working days after the disclosure, the PIU should log into the national platform for environmental acceptance check to upload the project description, the review comments on the environmental acceptance check, and other basic information etc. This information will be disclosed to the public by EEBs who will supervise the procedures of the environmental acceptance check.</p> <p>EIA Follow-up supervision: The follow-up supervision during EIA is to check whether EEBs have justly fulfilled their duties in EIA approval, whether technical review agencies have provided rational review comments on the EIA, whether EIA agencies have done accurate EIA based on true data and in a reliable way, and whether PIUs have gone through proper EIA procedures and conducting public consultation as required. The follow-up supervision after EIA is to check whether EEBs have fulfilled their duties in "Three Simultaneousness" supervision</p>

	and whether PIUs have implemented the “Three Simultaneousness” and other environmental management measures as required in the stages of design, construction, environmental acceptance check, and operation.
Classified management of pollutant discharge permits	Entities that are to discharge pollutants to the environment are classified to three categories based on the quantity of pollutant production and discharge and the potential impacts on the environment: (i) an entity with a large amount of pollutant production or discharge or substantial environmental impacts is subject to focus management; and (ii) an entity with a medium level of pollutant production and discharge and moderate environmental impacts is subject to general management; and (iii) an entity with minimal pollutant production and little environmental impacts is subject to online registration (It is not necessary to apply for a pollutant discharge permit, but it should be filed on the national pollutant discharge permit management information platform). Any entity that is subject to pollutant discharge permitting should strictly follow the permit requirements when discharging pollutants, conduct monitoring of the effluents/emissions, establish environmental management and monitoring records and archives, and submit regular reports to EEBs. Entities under focus management must install and maintain automatic monitoring devices and connect them with the EEBs’ online systems. The indicative pollutant discharge permitting classification for the PforR activities such as livestock breeding and farming, artificial forage cultivation and processing, livestock slaughtering and processing, and livestock/poultry manure treatment and utilization (organic fertilizer production), etc. is shown in Table 4-5; while other activities may not be subject to the permitting requirements. This section only gives an initial analysis on permitting classification, and specific types of permits that are applicable to the PforR activities will be determined by local EEBs during implementation.
Environmental Monitoring	(1)Environmental quality monitoring: carry out in-depth monitoring of air, water, soil, ocean, sound, and ecology, and establish a unified monitoring network and evaluation system; (2)Pollution sources monitoring: entities with pollutant discharge permits shall monitor and disclose information on their own, and EEBs jointly carry out law enforcement monitoring in accordance with the "double random" inspection; (3) Environmental emergency monitoring: Set up regional emergency monitoring bases and frame a cross-provincial emergency monitoring support system; (4) Other environmental monitoring activities: provide monitoring data for environmental management activities such as environmental status surveys and assessments.

Table 4-4: Pollutant Discharge Permitting Classification for Key PforR Activities

PforR Typical activity	Sector	Domestic EIA classification				Likely EIA category of the PforR
		Sub-sector	Category A: EIA report	Category B: EIA form	Category C: EIA registration	
Artificial forage cultivation base	Agriculture	Agricultural products base project (including medicinal materials base)	/	Involve environmental sensitive area	others	Usually, no EIA is to be carried, only EIA registration for endorsement is required.
Livestock breeding and farming	Livestock sector	Livestock production	Large-scale livestock and poultry farming with capacity of annual marketable fattened 5000 pigs (or other animals equivalent to fattened 5000 pigs); or annual stock of 2,500 pigs (or other animals equivalent to the stock of 2500 pigs ¹²) and above; Large-scale livestock and poultry farming involving environmentally sensitive areas.	/	Others (except those below scale) (The specific scale standards shall be referred to the Regulations on Pollution Prevention and Control of Large-scale Livestock and Poultry Farming)	The PforR have excluded the large-scale livestock farms and farming zone requiring EIA-report. The other small to medium scale farming zones require only environmental impact registration for endorsement.
Livestock slaughtering and processing	Agro-food processing	feed processing	/	with fermentation process; Annual processing of 10,000 tons or more	/	EIA-forms are required for annual processing 10,000 tons or more feeds.
		Slaughtering and meet processing	Slaughtering 100,000 live pigs, 10,000 beef cattle, 150,000 mutton sheep and 10 million or	Other slaughtering; Annual meet processing of	Other meet processing	The PforR have excluded the large-scale of livestock slaughtering and meet

¹² With reference to the "Pollutant Emission Standards for Livestock and Poultry Industry" (GB18596/2001), the conversion coefficient between different types of livestock and pigs is as follows: 1 sow/boar is converted into 5 adult pigs, 1 cow is converted into 10 pigs, 1 beef cow is converted into 5 pigs, and 3 sheep is converted into 1 pig.

PforR Typical activity	Sector	Domestic EIA classification				Likely EIA category of the PforR
		Sub-sector	Category A: EIA report	Category B: EIA form	Category C: EIA registration	
			more poultry	20,000 tons and above		processing activities requiring EIA-report.
	Food manufacturing industry	Dairy products manufacturing	/	except those with simple mixing and sub-packing	/	EIA-forms are required for dairy products manufacturing activities, except those with simple mixing and sub-packaging.
Veterinary service labs and agro-food quality testing labs	Professional laboratory, research and development (test) bases	Research and experimental development	P3, P4 Biosafety Laboratory; Transgenic laboratory	Others (except those that do not produce experimental waste gas, waste water and hazardous waste)	/	The PforR do not involve P3, P4 Biosafety Laboratory; Transgenic laboratory
Sanitary treatment of dead and diseased animals	Ecological protection and environmental management sector	Medical wastes disposal, sanitary treatment of dead and diseased animals	Centralized disposal of medical waste (except for simple collection and storage)	others	/	EIA-forms are required for sanitary treatment of dead and diseased animals
Livestock and poultry waste to produce organic fertilizer	Manufacturing of chemical raw materials and chemical products	Fertilizer manufacturing	Project producing nitrogen fertilizer, phosphate fertilizer and compound fertilizer by chemical methods	others	/	EIA-forms are required for producing organic fertilizer by using livestock and poultry waste

Table 4-5 Classification management of pollutant discharge permits for the main activities under the PforR

PforR activities	Sectors	Categories of Pollutant Discharge Permit		
		Category A: focus management	Category B: general management	Category C: registration management
Livestock farming	Livestock breeding and farming	Large-scale livestock and poultry farms and farming zones with effluent discharge outlets (the specific scale standards shall be implemented according to the Regulations on Pollution Prevention and Control of Large-scale Livestock and Poultry Farming)	/	Large-scale livestock and poultry farms and farming zones without effluent discharge outlets, livestock and poultry farms and farming zones below the scale with effluent discharge outlets
Forage cultivation and feed processing	Feed processing	/	Feed processing (with fermentation process)	Feed processing (without fermentation process)
Livestock slaughtering and processing	Slaughtering and meat processing	Slaughterhouses with annual capacity of 100,000 or more live pigs, 10,000 or more beef cattle, 150,000 or more beef sheep, and 10 million or more poultry	Slaughterhouses with annual capacity of 20,000 or more live pigs and less than 100,000 heads, 20,000 or more beef cattle and less than 10,000 heads, 25,000 or more mutton sheep and less than 150,000 heads, 1 million or more poultry and less than 10 million birds and 20,000 tons or more meat and poultry	others
	Dairy products manufacturing	Annual processing of 200,000 tons and above (excluding simple mixing or packaging)	Annual processing of less than 200,000 tons (excluding simple mixing or packaging)	simple mixing or packaging
Livestock and poultry waste to	Manufacturing of chemical raw materials	Nitrogen fertilizer manufacturing, phosphate fertilizer manufacturing,	Potash fertilizer manufacturing, organic fertilizer and microbial fertilizer manufacturing, other	others

PforR activities	Sectors	Categories of Pollutant Discharge Permit		
		Category A: focus management	Category B: general management	Category C: registration management
produce organic fertilizer	and chemical products	compound fertilizer manufacturing, the above do not include simple mixing or packaging	fertilizer manufacturing, the above do not include simple mixing or packaging; Nitrogen fertilizer manufacture (simply mixed or packaged)	

4.2.3 Institutional Organization and Performance

53. EEBs are the competent authorities responsible for EIA and follow-up management. The EIA and Pollution Control Department under the Ministry of Ecology and Environment (MEE) is responsible for overseeing EIAs and project life cycle environmental management at national level. The notice of the DEE of Gansu Province on the issuance of the Provisions on the Approval Procedures for EIA Documents of Construction Projects (2023 edition) stipulates the procedures for the application and acceptance of EIA documents of construction projects, assessment review (including the main points and requirements of the review) and announcement, approval, deadline, supervision and management. In Gansu Province, EEBs from the provincial, prefecture-level to the county levels is staffed with EIA division/sections or administrative approval sections, respectively with full-time staff.

54. In comparing with the Construction Project EIA Classified Management Catalogue (2021 edition), and after exclusion of these activities with major and significant high E&S adverse impact, the typical activities related to grassland management, low-emission livestock production, veterinary service labs and agro-food quality testing labs, are classified as activities/projects requiring EIA-form or EIA registration for endorsement. Most of them are only subject to EIA registration for endorsement and no EIA-reports or EIA-forms are to be prepared, and reviewed and approved.

55. **The Provincial DEE** has an EIA and Emission Management Division (4-5 staff), undertaking the comprehensive coordination and management of plan EIA, policy EIA, and construction project EIA, as well as pollution discharge permitting, and formulate and implement the ecological environment access list. An Assessment Center subordinated to the DEE (42 staff) provide technical support service to DEE to carry out EIA documents approval for construction projects. There is an Environmental Law Enforcement Bureau (about 40 staff) under the EDD responsible for overseeing the implementation of ecological and environmental policies, plans, regulations and standards, and undertake the enforcement of provincial environmental protection permits, the investigation and handling of major illegal cases, and coordinate the settlement of trans-regional environmental pollution disputes. DEE organize the implementation of the "three simultaneous" system for construction projects. Environmental Monitoring Division under the DEE undertakes assignment on ecological environment monitoring network establishment and management, under which, an Eco-Environmental Monitoring Center is responsible for provincial-wide eco-environment quality monitoring and management of the monitored data, provides technical support for pollution sources monitoring and technical guidance trainings on provincial-wide eco-environment monitoring system;

56. **The Municipal EEBs** have administrative approval sections (4~5 staff), who are responsible for reviewing and approval of EIA documents of those projects with proposals, check and approval, endorsement at provincial level but outside the provincial DEE's approval authority, responsible for reviewing and approval of EIA documents of those projects with proposals, check and approval, endorsement at municipal level. There are environmental monitoring sections under municipal EEBs (2~5 staff) responsible for planning the sites for eco-environmental quality monitoring, organizing EPL enforcement, supervisory monitoring of pollution sources, and environmental emergency monitoring, etc., under which, eco-environmental monitoring stations (about 20 staff) are responsible for municipal-wide eco-environmental monitoring and surveys.

57. **The County EEBs** have also EIA approval sections (2~3 staff) with duties cooperating with corresponding municipal EEBs, providing advices to projects owners prior to the preparation of EIA documents, guiding and supervising enterprises/entities to implement measures recommended by EIA documents in the later stage. At the town/township level, governments generally set up 1-2 full-time environmental cadres, responsible for environmental management assignment delegated from higher-level EEBs.

58. The E&S team found through its due diligence that environmental management records of activities similar to the typical PforR activities in sample counties, such as forage cultivation base development, large scale livestock farms and farming zones, multi-purpose utilization of livestock waste, and sanitary treatment of dead and diseased animals, organic fertilizer produced from livestock manure, etc.) were clearly kept. In general, these activities have been subject to EIA and follow-up management. For example, the two phased livestock production project located in industrial park for rural revitalization in Lanzhou New District, including feed processing, manure treatment facilities, EIA reports for the two phases (with capacity of 10,000 dairy cow 10000 head for phase one and additional 10000 head for phase two) were prepared and approved by EEB of Lanzhou New District. The hayshed and feed processing zone, mature treatment and recycling, air emission control facility, wastewater treatment station in the livestock farms have been subjected to the environmental acceptance-check for construction completion. The regular monitoring of the effluent, odor, and noise level indicated to have been compliance with the discharge/emission standards. Other examples include construction projects of organic fertilizer/matric (100,000 tons/a) and centralized sanitary treatment plant of dead and diseased animals in Guazhou County. EIA reports were prepared for the said two construction projects and reviewed and approved by EEB of Jiuquan Municipality (to whom Guazhou County is subordinated) in 2022 and 2023 respectively. EEB, together with ARAB of Guazhou jointly performed their regular inspection and supervision to the operation of the constructed projects. In the field visits during Oct. 2023, the ESSA team reviewed a variety of track records on environmental management for similar facilities/activities in the 4 sample counties (seeing Appendix 7 of this report).

59. Information on EIA instruments and pollutant discharge are open to the public through various online platforms such as the EIA Information Disclosure, the Pollutant Discharge Permits Management, and the Pollution Source Monitoring Center, etc. In addition, the MEE has other channels such as the National Ecological and Environmental Complaint and Reporting Platform, the minister’s mailbox, the 12369 Environmental Hotline, the 12369 WeChat account, and the 12345 Government Service Hotline for the public to report environmental complaints, track feedback, and voice their opinions.

4.2.4 Brief Summary

60. The EIA and follow-up supervision system, covering EIA processing, the “Three synchronizations, environmental acceptance check for construction completion, and pollutant monitoring etc., has been implemented in China for several decades and has kept improving towards project life cycle management. It is found through virtual interview that existing activities/facilities similar to that of the PforR have been subjected to EIA and follow-up supervision to avoid, reduce and mitigate adverse environmental impacts. The system is deemed satisfactory and basically complies with the Bank’s core principles. Appendix 8 of this report provide generic mitigation measures for addressing potential adverse environmental impacts of main activities under the PforR program. During the Program implementation, a program implementation plan (PIP) is to be developed, which will include a detailed environmental and safety code of conduct (ESCOP), which can refer to the generic mitigation measures listed in Appendix 8 of this report. These mitigation measures and ESCOP with estimated cost shall be included into the bidding documents for contractors to take specific actions.

4.3 Pollution Control System

4.3.1 Environmental Management for Livestock Farming and Slaughtering

61. Pollution control in livestock production was initiated relatively later in China. Since entering the 21st century, based on the "*Environmental Protection Law*" and various pollution prevention & control laws "*Animal Husbandry Law*", in combination with the needs of environmental management, the State has successively issued a pollution prevention and control laws, regulations, policies, standards and norms related to livestock and poultry breeding, livestock and poultry slaughter, livestock and poultry manure treatment and comprehensive utilization, to strengthen environment management of pollution prevention and control in livestock and poultry farming.

4.3.1.1 Applicable Legal Framework

Table 4-6 A list of Main Laws & Regulations on Livestock Sector

Names of laws,	Issuing	Relevant Main Provisions
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regulations, policy standards and specifications	authority/time	
Law of the PRC on Water Pollution Prevention and Control	NPC issued in 1984, 2 nd revised in 2017	Livestock and poultry farms and farming zones shall build comprehensive utilization or sanitary treatment facilities for livestock and poultry feces and wastewater, and ensure the normal operation of the facilities and ensure the discharge of effluents meeting the standard.
Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste	NPC issued in 2004, 3 rd revised in 2020	In large-scale livestock and poultry farming, solid wastes such as livestock and poultry manure generated in the farming process should be collected, stored, utilized or disposed of in a timely manner to avoid environmental pollution.
Law of the PRC on the Prevention and Control of Atmospheric Pollution	NPC issued in 1987, 2 nd revised in 2018	Livestock and poultry farms and farming zones shall promptly collect, store, clear and dispose of wastewater, livestock and poultry feces and carcasses, and prevent the emission of malodorous gases.
Law of the PRC on the Prevention Soil Pollution	NPC issued in 2018	Strengthen the supervision of the collection, storage, utilization and disposal of livestock and poultry manure, biogas residue and biogas slurry to prevent soil pollution.
Law of the PRC on Animal Husbandry	NPC issued in 2005, amended in 2022	Livestock farming: One of the conditions that livestock and poultry farms and farming zones shall have is the facilities and equipment suitable for the sanitary treatment and resource utilization of livestock and poultry manure; Livestock and poultry farms shall ensure the normal operation of facilities for the sanitary treatment and resource utilization of livestock and poultry manure, ensure the comprehensive utilization of livestock and poultry manure or discharge meeting standard, and prevent environmental pollution. Where illegal discharge of waste material causes environmental pollution hazards, the hazards shall be eliminated and compensation shall be made according to law. Slaughtering : The state implements a system of designated site for slaughtering of live pigs. Livestock and poultry other than live pigs may be slaughtered at designated points.
Regulation on Pollution Prevention and Control of Scaled Livestock and Poultry Production	SC issued in 2013	Animal husbandry development planning shall take into account the environmental carrying capacity and the requirements for pollution prevention and control of livestock and poultry farming, and scientifically determine the variety, scale and total amount of livestock and poultry farming. Livestock and poultry farms and farming zones shall, according to the scale of farming and the needs of pollution prevention and control, install sanitary facilities for separating manure, wastewater from storm water, storing, bio-digesting, composting manure or processing the manure into organic fertilizer or biogas, storing and treating wastewater, comprehensive disposal or utilization of animal carcasses. Only in the case that livestock farms or farming zones have contracted with the third parties for comprehensive utilization and sanitary treatment of livestock and poultry farming wastes, the farms or farming zones may not be necessary to build or install facilities for comprehensive utilization and sanitary treatment may not be built on their own. The State encourage and support the comprehensive utilization of livestock and poultry farming waste by returning manure to the field, producing biogas and producing organic fertilizers.
Technical Policy on Pollution Control of Livestock and Poultry Sector	Ministry of Environmental Protection (the former MEE) issued in 2010	It stipulates the general principles of "source reduction, clean production, comprehensive utilization of resources, and prevention of secondary pollution" for the treatment of livestock and poultry manure.
Regulations on the administration of pig slaughter	SC issued in 1997, 4 th amended in 2021	The state implements a system of designated sites for slaughtering of live pigs. One of the conditions that a customized slaughterhouse should meet is that it has inspection equipment, disinfection facilities and pollution prevention measures that meet the requirements of environmental protection.
Measures for the Administration of Livestock Slaughtering in Gansu Province	GPPG issued in 2005	The conditions for the establishment of designated slaughterhouses (plants) of cattle and sheep shall include: (1) The site selection, layout and construction shall meet the requirements for epidemic prevention and environmental protection stipulated in the Law of the PRC on Animal Epidemic Prevention; (2) there should be lairage for reception of animals before slaughtering, slaughtering rooms and sanitary treatment facilities for

		diseased animals, wastewater, feces and bedding grass proportionated with the slaughtering capacity; (3) slaughterhouse ground shall be impermeable layer with no less than 1 meter cement wall skirt, and the operation process shall be reasonable to prevent cross-contamination.
Opinions of the Ministry of Agriculture on Accelerating the Standardization of large-scale livestock and Poultry Farming	Ministry of Agriculture (the former Ministry of Agriculture and Rural Affairs (MARA) issued in 2010	The standardized production of livestock and poultry implies siting livestock farms or farming zones, constructing livestock sheds and other facilities, selecting good varieties for breeding, feeding and other inputs, ensuring animal health and preventing epidemic, sanitary treating wastes and organizing producing process by strictly implementing relevant laws, regulations and standards to achieve improved livestock and poultry production with good varieties, sound farming facilities, standardized production, systematized epidemic prevention, sanitary manure treatment and normal supervision. MARA promote a shift to large-scale intensive livestock production through government guidance, policies support and market driven to lay a good foundation for effective prevention and control pollution from livestock sector.
Relevant National Policies, Specifications, Standards	/	Livestock and Poultry Farm Scale Standards and Filing Management Measures (Trial) (Draft for Comment) (2023); Standards for Supervision and Inspection of Pig slaughterhouses (plants); Environmental Quality Standards for Livestock Farms (NY/T 388-1999); Pollutant Discharge Standard of Livestock and Poultry Industry (GB 18596-2001), Technical Specification for Pollution Prevention and Control of Livestock and Poultry Industry (HJ/T 81-2001), Technical Specification for Sanitary Treatment of Livestock and Poultry Manure (GB/T 36195-2018); Notice on Further Clarifying the Requirements on Returning Livestock Manure to Field with Strengthened the Supervision of Pollution from Livestock Sector (2020), Technical Specification for Composting Livestock Manure (NY/T3442-2019), Technical Specification for Returning Livestock Manure to Field (GBT25246-2010), Technical Specification for Pollution Control Project of Livestock and Poultry Industry (HJ497-20) 09), "Technical Guide for Estimating the Carrying Capacity of Livestock and Poultry Waste Land" (2018), etc.
Gansu Provincial and Local Rules/Regulations	/	Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management (2007), Measures for the Administration of livestock Slaughter in Gansu Province (2005), Application Conditions and Acceptance procedures for Livestock Slaughtering at Designated Site in Gansu Province, Notice of the General Office of the MARA and MEE on Further Clarifying the Requirements for Returning Livestock and Poultry Manure to the Field and Strengthening the Supervision of Pollution from Livestock Sector (2020), etc.

4.3.1.2 Implementation Mechanisms and Procedures

62. In order to implement the above-mentioned laws and regulations on livestock and poultry breeding, China has established and is gradually improving the relevant implementation mechanisms, which are listed in Table 4-7 below.

Table 4-7 Mechanism for Pollution Control in Livestock Sector

Implementation Mechanisms/ Procedures	Description
Pollution Prevention	(i) Prepare local livestock and poultry farming pollution control plans. (ii) Establish prohibited zones, restricted zones, and farming zones to properly site farms. (iii) Construction, expansion, or upgrading of livestock and poultry farms or manure treatment facilities should follow relevant government plans and EIA requirements.
Pollution Management	(i) <i>Reduction</i> : Scientific manure cleaning methods (e.g., dry-and-wet manure separation, wastewater and storm water separation, dry manure collection, biological fermentation bed) are proposed to reduce wastewater and odor generation. (ii) <i>Treatment</i> : Discharge of treated effluent or emission should comply with applicable national and/or local standards. (iii) <i>Utilization</i> : Comprehensive use of manure is encouraged such as applying manure to farmland or using manure to make organic fertilizer or biogas. Applying manure to farmland as fertilizers must match the farmland carrying capacity. Third-party professional entities should be engaged to accomplish manure utilization or disposal when the farms cannot find sufficient farmland to carry their manure. Biogas residues and slurry can be applied to farmland as fertilizers following sufficient treatment. (iv) Sanitary disposal, dead and diseased animals and related products should be disposed of by means of deep bury, rendering, incineration, sterilized by autoclaving.

Integrated Utilization	Integrated utilization of manure by returning them to farmland, producing biogas, manufacturing organic fertilizer are highly supported; combination of crops cultivation with livestock farming for returning manure matching the farmland carrying capacity. Encourage entities act as third party to provide service on manure collection, transfer and farmland application. Upgrade the level of facilities and equipment, and implement the mechanized return of livestock and poultry manure to the farmland; Strengthen supervision of commercial organic fertilizer products with livestock and poultry manure as the main raw material, and promote the development of green organic geographical indication agro-food.
Entity Responsibility	Enterprises, cooperatives, farmers and herdsmen engaged in livestock sector are the main entities responsible for the utilization of manure and pollution prevention and control, and should build facilities for the sanitary treatment and resource utilization of manure, ensure the normal operation of the facilities, provide adequate farmland proportionated to caring capacity for application of manure. Third-party professional entities should be engaged to accomplish manure utilization or sanitary disposal.

4.3.1.3 Institutional Organization and Performance

63. **ARABs:** are the competent authorities responsible for guiding, serving and regulatory of livestock and poultry manure treatment and resource utilization. At the county level, livestock sections (1~4 staff) under ARABs are responsible for day-to-day management of manure treatment and utilization facilities. They pay sites inspections at least once a month while providing guiding services. The County ARABs develop implementation plans for treating and utilizing manure, and conduct regulatory assignment jointly with local EEBs, WRBs and town/township governments, and guide livestock farms or farming zones to upgrade their facilities on the manure resource utilization.

- **Registration for Endorsement:** As per Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management (2007), livestock farms or farming zones will have priority enjoy the relevant national and provincial support policies if they have registered for ARABs endorsement. Information for registration include selected site for livestock farming, production zones, animal epidemic prevention conditions reached, facilities used for sanitary treatment and resources utilization of manure and dead & diseased animals, agreement signed for applying manure to farmland as fertilizer, EIA documents, pollutant monitoring data etc., ARABs at county, municipal and provincial levels shall review and examine this information. With these registered information ARABs are able to effectively supervise and manage livestock manure.
- **Direct Connection and Reporting:** A Livestock Farms Direct Connection & Reporting Information Platform is a livestock production management assessment information platform organized and developed by the National Livestock Station in 2018 based on the Internet and the Internet of things. It has the function of big data collection and reporting and cloud computing monitoring of production. All the livestock farms registered in the county ARABs system are required to fill in their farming scale, pollutant treatment facilities and volume/amount of pollutants generated into the platform. The county ARABs can effectively monitor the number of animal husbandry and the resource utilization of livestock and poultry manure through the system platform.

64. **EEBs:** Livestock farms and farming zones, slaughterhouse and meet processing are subject to environmental management such as EIA, and pollution discharge permitting etc. Such information as breeding varieties, farming capacity, volume of waste produced, discharged during livestock farming, and integrated utilization of waste, etc., are also registered for EEBs endorsement. The county EPL enforcement team (about 10 staff) regular inspect and supervise the livestock farming facilities by means of “double random, one open” to assist and urge the livestock farms or farming zones to fully implement the primary responsibility for pollution prevention and control.

- **EIA System Implementation:** In accordance with local national laws and regulations on pollution prevention and control and environmental impact assessment, EEBs conduct review and approval or endorsement of EIA documents (documents cover detailed analysis and assessment of waste and sanitary treatment facilities) for projects and construction of large-scale livestock farms and farming zones, slaughtering and processing plants, veterinary laboratories and/or animal product quality and safety testing labs, dead and diseased animal disposal centers, livestock product deep processing, storage, transportation and distribution facilities, and related medical waste treatment centers, and managing, environmental acceptance check at construction completion, and supervision during and after the event (see Section 4.2 of this report for details).

- **Pollution Discharge Permitting System Implementation:** Pollution discharge permitting system is a basic system in China's eco-environment governance mechanism, which plays a key role in connecting the "three simultaneous" environmental protection and improving the post-management of environmental protection. As per Catalogue of Classified Management of Discharge Permits for Fixed Pollution Sources (2019 Edition) issued by MEE, EEBs carry out focus management, general management and registration management for large-scale farms and farming zones, slaughtering, meat processing, feed processing and other facilities (as listed in Table 4-5). The E&S team noticed in its site visits during October 2023 that the large-scale farms and farming zones in the 7 Program counties(district) have achieved zero emission of manure (by return to the farmland as fertilizer) without fixed effluent outlets, therefore, these farms and farming zone are only required to register in local EEBs pollution discharge permitting management platform for endorsement by filling such data as entities basic data, where or how pollutants go or treated, applicable pollution discharge standards, measures taken for controlling pollution, etc. It is not necessary for them to apply for and be issued of pollution discharge permits. Enterprises operating slaughterhouses and meat processing facilities need to apply for permits to discharge pollutants. The permits will state clearly whether they are subject focus management, general management or registration management depending on scales of their facilities. With information documented in the pollution discharge permits or recorded in the registration, EEBs, ARABs will be capable of regulatory to the operation of these facilities.

65. In terms of resource utilization of livestock manure, county ARABs and EEBs are staffed with sufficient funding budget to conduct supervision management of pollution prevention & control and great progress has been made. During the field visits to the 4 sample counties i.e., Lanzhou New District, Guazhou County, Sunan County and Jingchuan County in Gansu Province, the E&S team witnessed various facilities or ways for sanitarily treating and utilizing livestock manure were placed in livestock farms visited. (1) The large-scale livestock farms can basically treat and utilize livestock manure effectively. For example, a large-scale livestock farming project located in rural revitalization industrial park of Lanzhou New District (with farming capacity of 20,000 head of dairy cow after 2 phases of construction), manure was delivered by pipelines to a black file tank for fermentation. After dehydration and desulfurization, the biogas generated in from the fermentation tank were treated by means of internal combustion. After the separation of biogas slurry, the solid was fermented and used as organic fertilizer and applied to farmland surrounding the farm. Wastewater from the black file tank were treated by an on-site treatment station and the treated effluent were applied to farmland surrounding the farm. The enterprise who run this farm have gone through all environmental management procedures, including the preparation of EIA-report that was approved by EEB, the environmental acceptance check at construction completion, keeping a ledger of manure treatment and utilization, keeping monitoring odor and treated effluent as specified in its pollution discharge permit to ensure monitored data compliance with applicable discharging standards. (2) Some of small to medium scale livestock farming zone with capacity reaching scale¹³ defined in “Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management (2007)” that are operated by cooperatives or smallholders have inadequate manure treatment and utilization and animals diseases control facilities. Some of which employ open-air manure stacking sheds with low processing levels. Some of which lack corresponding operational procedures and internal management systems. In comparison with “Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management (2007)”, there are rooms for such small to medium scale livestock farming zones to improve in terms of hardware facilities and internal management system.

66. Meanwhile, the *14th Five-Year Plan for Pollution Control of Livestock and Poultry Farming* were developed at Gansu provincial, municipal and county levels. For example, in the same Plan developed by Guazhou County in Oct. 2022, the objectives, tasks and key areas for pollution prevention and control of livestock and poultry farming are clarified. The requirements for the construction of pollution control facilities are determined, and pollution prevention and control measures such as the comprehensive utilization of livestock and poultry manure are determined. It is planned that by 2025, the comprehensive utilization rate of livestock and poultry manure will be increased from 83% to more than 85%, the rate of installed equipment for livestock and poultry farms' manure treatment will be increased from 83% to 100%, the rate of ledges of livestock and poultry farms' manure resource utilization will be increased from 70% to more than 85%, and

¹³ As per *Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management*, the scale of a livestock farming zone is defined as: raising 200-300 basic sows, or 1500-3000 fattened marketable pigs (including breeding pigs) per year; Raising and breeding 100-150 beef cattle (cows), or 300-500 beef cattle per year; Raising and breeding 300-500 ewes, or 1,000-1,500 meat sheep per year; Raising 10,000 to 20,000 laying hens;

the self-monitoring coverage rate of livestock and poultry farms that meet the discharge standards will reach 100%.

4.3.1.4 Brief Summary

67. China and Gansu Province have a relatively complete legal system and institutional setup in terms of livestock manure treatment and resource utilization. Particularly, since the beginning of the 21st century, the relevant departments of the Nation, Gansu Province and local governments have issued policies, regulations, management methods, planning and technical guidelines or norms related to pollution control in livestock and poultry farming and animal slaughter and processing, guiding the traditional decentralized farming shift to centralized, intensive, standardized, livestock production which combining livestock farming with crop cultivation to be more green and circular. This management system is qualified to better manage the impact of pollution from livestock sector, and is in line with the World Bank Group's (WBG's) Environmental, Health, and Safety (EHS) Guidelines for Mammalian Livestock Production, and for the Meat Processing, covering good international industrial practice (GIIP) for environmental protection in livestock production and agro-food processing. In order to further improve and standardize the hardware facilities of small and medium scale livestock farming zones in pollution prevention and control, and improve internal management mechanism/procedure of livestock cooperation who run the farming zones and enabling them to achieve the relevant standards set forth in the Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management (2007), it is recommended: document cases of good practices and experience various counties in the prevention and control of livestock pollution and share with small-medium livestock farming facilities operators for them to prepare pollution control measures to be included into the Environmental and Safety Code of Procedures (ESCOP), and also take advantage of the implementation of the PforR to equip the necessary waste treatment facilities and incorporate them into the Program Implementation Plan (PIP). Appendix 8 of this report list generic mitigation measures for managing adverse E&S impacts which can be referred to by small and medium-sized farming zones to prepare their ESCOP.

4.3.2 Environmental Management for Artificial Forage Cultivation and Feed Processing

68. The varieties of artificial forage in Gansu Province mainly include perennial and annual crops such as alfalfa, oats and forage corn. Artificial forage cultivation due to irrigation, fertilization, use of agricultural mulch film, forage crop protection and prevention of pests and diseases, there is potential for the prevention and control of agricultural non-point source pollution caused by excessive or unreasonable fertilization of fertilizers and pesticides, including nutrient and fertilizer management, pest and pesticide management, irrigation water quality management. Forage production product nearly no straw waste, but will involve non-crop waste management. Other crop straw can be used as animals' feed, feed processing will and emit dust. With the deepening of China's ecological civilization construction and the concept of green agricultural development, China is accelerating the construction of agricultural and rural ecological environmental protection systems, including agricultural non-point source pollution, integrated prevention and control of crop diseases and pests, crop waste management and safety management systems closely related to forage cultivation and feed processing activities under the PforR

4.3.2.1 Applicable Legal Framework

69. The main applicable laws & regulations on artificial forage cultivation and feed processing are listed in Table 4-8 below.

Table 4-8 Main Laws and Regulations on Forage Cultivation and Feed Processing

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
1. Nutrient and Fertilizer Management-prevention & control agricultural NPS pollution and soil degradation due to over-fertilization		
Law of the PRC on	NPC issued in 1993	The Law stipulated that the production and operation of fertilizers shall be subject

Agriculture	and 2 nd amended in December 2012	to a registration or licensing system in accordance with the provisions of relevant laws and administrative regulations. Rational use of chemical fertilizers, pesticides, agricultural mulch film, increase the use of organic fertilizers, to prevent the pollution to farmland, soil fertility declining.
Measures for the Administration of Fertilizer Registration	Ministry of Agriculture issued in 2006, amended by MARA in 2022	The registration and management system for fertilizer products shall be implemented. Unregistered fertilizer products shall not be imported, produced, sold or used, nor shall they be advertised. Before applying for fertilizer registration, producers conduct standardized field tests in China and pass the evaluation of the fertilizer chemistry, the fertilizer efficiency and safety organized by MARA. If the registered fertilizer is proved to be harmful to people, livestock and crops within the validity period of the registration, shall be deliberated by the fertilizer registration and evaluation committee and announced to be restricted or prohibited form use by MARA.
Action Plan on Zero Growth of Chemical Fertilizer Use by 2020	Ministry of Agriculture issued in 2015	The plan sets the goal of zero growth of chemical fertilizer use for major crops by 2020 in view of excessive and blind application of chemical fertilizer. It also puts forward action plans such as promoting soil tested formula fertilization, improving fertilization methods, promoting the use of efficient slow-release fertilizers, and increasing organic fertilizer application, etc.
Technical Guidelines for Environmental Safety of Chemical Fertilizer Use	Ministry of Environmental Protection issued in 2010	The guidelines set forth the principles, control technical measures and management measures for the environmentally safe use of chemical fertilizers, focusing on reducing the use of chemical fertilizers, their loss and NPS pollution.
Implementation Plan for Agricultural NPS Pollution Control and Supervision and Guidance (Trial)	MARA and MEE jointly issued in 2021	It is planned to further promote the prevention and control of agricultural NPS pollution such as the reduction of chemical fertilizers and pesticides, the comprehensive utilization of straw, the recycling of agricultural mulch film, and the treatment of livestock manure. It is also planned to improve laws and regulations, standards, optimize economic policies, and establish a pluralistic model of co-governance, carry out investigation and monitoring of agricultural pollution sources, assess the environmental impact of agricultural NPS pollution, and build a monitoring platform for agricultural NPS pollution.
Other relevant national laws and regulations	/	In addition, there are a large number of sector laws and regulations that cover the rational use of chemical fertilizers and the reduction of environmental pollution, including: the Environmental Protection Law, the Water Pollution Prevention and Control Law, the Agricultural Technology Extension Law, the Marine Environmental Protection Law, the Agricultural Product Quality and Safety Law, and so on.
Gansu Provincial relevant regulations		Regulations of Gansu Province on the Protection of Agro-Ecological Environment (2007)
2. pests¹⁴ and pesticide use		
Regulations on Crop Pests Prevention and Control	SC issued in 2020	The prevention and control of crop diseases and pests is guided by the principle of prevention first followed by comprehensive control. The government shall take the leadership and local authorities shall take responsibility within its jurisdiction to apply green prevention and control approaches supported by scientific and technological technologies to manage pesticides in the manner that are classified. Information technology and biotechnology should be applied to promote intelligent and green control crop pests. The use of green technologies, advanced spraying equipment and safe and efficient pesticides should be encouraged. Government encourage and support specialized pest control service organizations through government purchase of services and encourages them to use green prevention and control technologies.
Measures for the Administration of Specialized Services for the Control of Crop	MRAR issued in 2021	ARABs at or above county levels shall strengthen the management of specialized service ¹⁵ organizations for the prevention and control of crop pests, provide them with technical training, guidance and service for specialized pests prevention and control to standardizes their service behavior. Field operators of specialized service organizations shall be able to correctly identify crop diseases and insect pests in

¹⁴ Crop pests here refer to diseases, insects, grass, rats and other harmful organisms that farm to crops and their products

¹⁵ Specialized control service for crop pest refers to behaviour that specialized control service organizations provide crop pests control services for agricultural producers and operators

Pests		the service area with knowledge on correct scope, methods, intervals of various pesticides applications, as well as the knowledge of safety protection in field operations. Field operators of specialized service organizations shall correctly use the application machinery and related articles for crop pests control, and shall provide specialized services for the prevention and control of pests by taking comprehensive measures (such as agricultural, physical, biological and chemical measures), and apply pesticides scientifically in accordance with the relevant regulations on the safe use of pesticides.
Technical Guidelines for Green Agricultural Development (2018-2030)	MARA developed in 2018	In order to build a technical system supporting the green development of agriculture, vigorously promote the construction of ecological civilization and the green development of agriculture, the Guideline proposed a number of important tasks related to the development of green inputs, including research and development of green production technology, development of green value-added technology, etc., in terms of research and development focus, integrated demonstration, promotion and application. The important tasks include the application and extension of environmental-friendly high-efficient fertilizer, pesticides and biological agents, technologies on agricultural non-point source pollution control, fertilizer and pesticide uses reduction and efficiency improvement and agricultural waste recycling, etc.
Pesticide Management Regulations	SC issued in 1997, 2nd amended in 2022	Pesticide producers and sellers have responsibility for the safety and quality of their pesticide products and should accept government and public supervision. Government should encourage and support the research, production and use of safe, efficient and economical pesticides, promotes the specialized use of pesticides, and promotes the upgrading of the pesticide industry. Government should promote biological and physical approaches in pest control and encourage to use advanced spray equipment to reduce pesticide use. Pesticide producers and sellers are subject to pesticide registration and permitting requirements. Pesticide users are asked to follow specifications when applying pesticides. ARABs should regularly oversee pesticide production, sale, and use. Pesticide users shall protect the environment, beneficial organisms and rare species, and shall not discard pesticides, pesticide packages or clean application instruments in drinking water source protection areas or river courses.
Action Plan on Zero Growth of Pesticides Use by 2020	Ministry of Agriculture developed in 2015	In order to address the issue of high production cost, pesticides residue of products exceeding applicable standard, environmental pollution due to excessive application and unscientific application of pesticides, the Plan set up the goals on green prevention and control, unified control and scientific application of pesticides and strive to achieve zero growth of total pesticide use.
Management Measures on Recycling and Disposal of Pesticides Packaging Waste	MARA, MEE issued jointly in 2020	pesticide producers and operators are required to perform the corresponding pesticide packaging waste recycling obligations in accordance with the principle of "who produces, manages, and who recycling", and take effective measures to guide pesticide users to return pesticide packaging waste in time.
Other relevant national laws and regulations	/	In terms of pesticide safety management, the relevant laws and regulations include the "Agricultural Product Quality Safety Law", the "Food Safety Law", the "Regulations on the Administration of Hazardous Chemicals", the "Measures for the Administration of Pesticide Registration", the "Measures for the Administration of Pesticide Production Licensing", the "Measures for the Administration of Pesticide Business Licensing", and technical norms such as the "Code for the Safe Use of Pesticides" and the "Technical Guidelines for the Environmental Safety of Pesticide Use". At the same time, the MARA also regularly updates the "List of Prohibited Pesticides", and dynamically updates the prohibited and restricted pesticides. These laws and regulations directly or indirectly put forward requirements for the safety management of pesticides and constitute the legal framework of pesticide management system.
Gansu Relevant regulations	2020	Gansu Action Plan on Zero Growth of Pesticides Use by 2020
3. Agricultural wastes management		
Measures for the Administration of	State Environmental Protection	Areas with concentrated population, important transportation facilities, and nature reserves are prohibited from straw burning, taking town/township as burning-ban

Straw Burning Ban and Comprehensive Utilization	Administration issued in 1999	zone. It is encouraged to make comprehensive utilization of straw.
Agricultural Mulch Film Management Regulations	MARA, The Ministry of Industry & Information Technology, MEE, State Administration for Market Regulation jointly issued in 2020	Agricultural mulch film producers and sellers should establish and keep mulch film sales records; farm owners, farmer cooperatives, and other users should establish and keep use records; mulch film collection and recycling entities should keep collection and recycling records; and mulch film users should pick up mulch film residues in a timely manner and deliver them to collectors or recycling enterprises instead of dumping, burying, or burning them.
Measures for the Management of Recycling and Disposal of Pesticide Packaging Waste	MARA, MEE jointly issued in 2020	Pesticide producers and operators are required to fulfill the corresponding obligation of recycling pesticide packaging waste in accordance with the principle of "who produces and manages, who recycles", and take effective measures to guide pesticide users to return pesticide packaging waste in a timely manner
Guidance on the Recycling and Treatment of Fertilizer Packaging Waste	MARA issued in 2020	Overall consideration and coordination with the recycling and treatment of pesticide packaging waste to implement classified disposal. Pesticide producers, sellers and users shall bear their respective obligations in collection and recycling under the principle of "who produces, who recycles, who sells, who recycles, who uses, who recycles".
National Hazardous Waste Catalogue	MARA, 2021 edition	Packaging materials that are in direct contact with pesticides or contain pesticide residues that are discarded after the use of pesticides shall be managed as hazardous waste ¹⁶ , unless they are collected and transferred to a set centralized storage point in accordance with the Measures for the Management of Recycling and Treatment of Pesticide Packaging Waste (hereinafter referred to as the "Management Measures"), pesticide packages are exempted from hazardous waste if they are collected, transported, and disposed of as required. Recycling process of pesticide packages by entities who reuse them satisfying to the requirement of the "Management Measures" are exempted from hazardous waste management. Disposal process pesticide packages by means of sanitary landfill for domestic solid waste are also exempted from hazardous waste management.
The 14th Five-Year Plan for National Agricultural Green Development	MARA, NDRC, Ministry of Science and Technologies, Ministry of Natural Resource (MNR), MEE, National Forestry and Grassland Administration (NFGA) developed in 2021	Promote the utilization of straw as fertilizer, feed, fuel, base material and raw materials, strictly prohibit burning and control, and prevent regional air pollution caused by straw burning.
Relevant Gansu Provincial regulations	/	"Gansu Province on Implementation Plan for Further Strengthening Plastic Pollution Control", "Gansu Provincial Implementation Plan for Pesticide Packaging Waste Recycling and Treatment ", "Gansu Provincial Regulation on Agricultural Mulch film Recycling", etc.

4.3.2.2 Implementation Mechanisms and Procedures

70. Mechanisms for controlling pollution from forage cultivation and feed processing are listed in Table 4-9 below.

Table 4-9 Mechanisms for Controlling Pollution from Forage Cultivation and Feed Processing

¹⁶As per the Measures for the Management of Recycling and Treatment of Pesticide Packaging Waste (hereinafter referred to as the "Management Measures"), if pesticide packages are collected and transferred to the designated site for centralized storage points, the process of collection is exempted from hazardous waste, the process of transferring is exempted from hazardous waste if meeting transportation conditions specified in the Management Measures. Recycling process of pesticide packages by entities who reuse them satisfying the requirement of the "Management Measures" are exempted from hazardous waste management. Disposal process pesticide packages by means of sanitary landfill for domestic solid waste are also exempted from hazardous waste management.

Implementation Mechanisms/ Procedures	Description
Mechanism of Fertilizers registration and Approval	As per Measures for the Administration of Fertilizer Registration, MARA is responsible for nation-wide fertilizer registration review, issuance of registration certificate, publicity, and regulatory management of fertilizers. Only the registered fertilizers can be produced. Chemical fertilizer producing and selling activities are not subject to permitting requirements like pesticides; instead, they are produced and sold in a market-based manner. Producers and sellers manage their activities in line with market rules; The general practice is to sell to farmers through agricultural material companies at all levels and agricultural technology extension stations, soil fertilizer stations, plant protection stations or sales agents
Approaches on nutrient management and chemical fertilizer use reduction and efficiency improvement	BRARs at all levels issued guidelines on scientific fertilization of major crops and/or set up teams of fertilizer experts to provide technical guidance on managing nutrient and fertilizer use reduction and efficiency improvement. Main approaches includes: (1) advancing test-based fertilization with formula constantly improved; (2) planting green manures to promote energy-saving and low-carbon agricultural development; (3) replacing chemical fertilizer with organic fertilizer or mixture of the two; (4) promoting returning straw to the field to maximize the substitution and reduction of potassium fertilizer; (5) optimizing composition of fertilizers by means of application of special formula fertilizers (e.g., alkaline fertilizer (applicable to Hunan where soil is dominated by acidic red soil), water-soluble fertilizer, and soil conditioner, etc., selected rationally according to soil, role, nutrient demand of crops, and local ecosystem; (6) improving fertilization methods, such as water integrated water & fertilizer management, deeper mechanical fertilization, foliar fertilization, etc.; (7) emphasizing on provision of technical training, etc.
Fertilizer packages management	They are subject to integrated management considering: (1) Scope of management: All packages of chemical, organic, microbiological and water-soluble fertilizers should be properly managed; (2) Responsible entities: Fertilizer producers, sellers and users should take the lead in fertilizer packages recycling. Fertilizer producers and sellers should set up specific facilities to keep collected fertilizer packages. Farming service agencies, marketing cooperatives, and recycling enterprises are encouraged to participate in collection and recycling of fertilizer packages. (3) Recycling approaches: reusable packages should be collected by users, recycled by sellers, and utilized by professional enterprises; and non-reusable packages can enter local rural solid waste systems or pesticide packages management systems; (4) Source reduction: Fertilizer producers are encouraged to use large-volume recyclable packages, and recoverable reused packages; (5) Social services: It's promoting socialized fertilizer formulation and application services, providing large-volume package of fertilizers to large-scale sellers, and encouraging unified fertilization service to large pieces of farmland etc.
Pesticides Producers management	The State implements a licensing system for pesticide production. Pesticide producer must be the holder of pesticide production license and should apply for a registration certificate for each pesticide product that provides basic information such as the pesticide name, ingredients, toxicity, scope of application, usage and dose, valid period, certificate holder, reference number, etc. A pesticide product must pass a quality test and obtain a qualification certificate before entering the market. The pesticide label should give key information of the product. Pesticide producer should keep sale records for at least two years and recycle pesticide packages as per government requirements. Pesticide packaging shall comply with the relevant provisions of the State, and wasted pesticide packages shall be recycled.
Pesticides sellers management	The State implements a licensing system for pesticide selling, sellers must hold pesticide management licenses issued by ARAB at or above the county level and be staffed with professional education background or 56-hour on-the-job training certifications in the field of agriculture, plant protection, pesticide, or other related subjects. Pesticide seller should have suitable selling and storage spaces and facilities, have proper systems and regulations on recording, safety management, emergency response, storage management, waste recovery and disposal, technical instruction, etc. Pesticide seller should not buy pesticides from any producer who doesn't have a pesticide production permit or from any pesticide seller who doesn't have a pesticide selling permit and should not process or sub-package any pesticides. Pesticide seller should explain the scope, method, dose, requirement, and precautions about pesticide application to buyers and recycle pesticide packages.
Pesticides users management	Pesticide user should strictly follow the specifications on pesticide application scope, function, dose, methods, and precautions and should not apply pesticide beyond the specifications. Users are not allowed to use any prohibited pesticides and apply any pesticides in drinking water source protection areas, or dump pesticides or pesticide packages in drinking water source protection areas or rivers
Reduced use of pesticides	(1) improvement of technique and use of new pesticide application devices: for example, using drones to increase spraying efficiency; (2) selection of pesticides to vigorously promote high-efficiency, low-toxicity, and low residue pesticides by following the latest Recommended Catalogue of Scientific Use of Pesticides for Pest Control of Major Crops published by Hunan Provincial DRAR; (3) green pest control: combining multiple ways such as agronomic methods (e.g., ploughing), ecological methods (e.g., improving soil environment, removing weeds), physical methods (e.g., pest killer lamps, food or sexual attractants, insect nets, sticky colored boards), biological methods (e.g., ladybirds against aphids, microorganisms, and other biological pesticides); (4) promotion and increasing the coverage of specialized organization to provide prevention and control service, and (5) pesticide source control: ARABs at county level (who have agricultural comprehensive law enforcement brigade) supervises and inspects the license of pesticide operators, pesticide quality and safety, and conducts training for pesticide

	users
Crop straw management and multi-purpose utilization	(1) Straw burning ban management: delimit area for straw burning ban where fire is monitored for fire warning and response. (2) Fertilizer utilization: use straw as fertilizer by returning decomposed or bio-reacted straw to farmland or processing straw into organic fertilizer production, etc.; (3) Feed utilization: use straw as silage, or processed into granulated feed by means of ammoniating; (4) Energy utilization: Promote straw bio gasification, pyrolysis gasification, curing molding, carbonization, direct combustion for power generation, biomass energy utilization; (5) Utilization of straw as culture base for mushroom cultivation or seedlings by means of bio-chemical technology; (6) Raw material utilization: Using straw as raw material to produce non-wood pulp paper, xylitol, packaging materials, degradable films, tableware, artificial plates, composite materials, woven products, etc.
Agricultural Mulch Film Management	With support from government, farmers and agricultural operators are required to pick up the agricultural mulch film at farmland, store them in collection outlets at the village level, recycled by township enterprises. Users, collection outlets and township recycling enterprise of agricultural mulch film shall establish ledgers respectively. Measures oriented for managing agricultural mulch film include: (1) reduced use: promote the rational application of mulching technology, strengthen the exploration of the crop rotation system, and demonstrate and promote technologies such as multi-use of one piece of film and inter-row mulching; (2) Standardization: introduce and implement local standards for mulching film, and promote the application of thicker mulching film above 0.01mm; (3) Film picking mechanization: strengthen the research and development of agricultural mulch film recycling machinery and technology integration; (4) Specialized recycling: Support specialized social service organizations or enterprises to provide service on agricultural mulch film recycling and processing.
Pesticides Packaging Waste Management	As per the latest Hazardous Waste Catalogue, pesticide packaging waste is no longer collected, transported and processed as hazardous waste if it meets the national exemption conditions, but it needs to be properly managed through the following mechanisms: (1) Recycling: packaging directly contacting with pesticides or containing residues of pesticides, including bottles, cans, drums, bags, etc., that are discarded after the use of pesticides; (2) Entities responsible for recycling and treatment: pesticide producers, operators and users are the main entities responsible for pesticide packaging waste recycling, the first two of whom shall not refuse to accept the packaging waste produced and sold by them, and take effective measures to guide pesticide users to return pesticide packaging waste in a timely manner by setting up recycling devices for pesticide packaging waste recycling. Pesticide users shall collect pesticide packaging waste in time and return it to pesticide seller or pesticide packaging waste recycling sites, and shall not discard it at will. (3) Approaches for collection, storage, transportation and treatment: the layout of the recycling site should be designed to cover pesticide production enterprises, pesticide stores, large-scale planting bases, agricultural parks, large pesticide users, cooperatives and administrative villages. In principle, a temporary storage point for pesticide packaging waste should be established in each administrative village group, a transfer point for pesticide packaging waste should be established in each township, and a centralized storage point for pesticide packaging waste should be established in each county. Use rural waste recycling and disposal system to transfer regularly; Encourage and support the resource utilization of pesticide packaging waste (such as garbage power generation, manufacturing sewer manhole covers and underground pipelines), others that are not utilization, shall be disposed of legally by means of landfilling, incineration and other sanitary treatment. (4) Recycling and treatment costs: the costs shall be borne by the corresponding pesticide producers and operators; If the pesticide producer or operator is unclear, the disposal expenses shall be paid by the local people's government at the county level. (5) Source reduction: Pesticide producers are encouraged to use packaging that is easy to recycle and dispose of, water-soluble polymer packaging or packaging that is degradable in the environment. Aluminum foil packaging shall be phased out, the use of large-capacity packaging will be encouraged for easy to recycling. (6) Social services: industry associations are encouraged to play a role in organizing and coordinating providing technical guidance and services in the recycling and treatment of pesticide packaging waste; and specialized service institutions are encouraged and supported to carry out the recycling and treatment of pesticide packaging waste.
Fertilizers Packaging Waste Management	Fertilizers packaging waste can be managed through: (1) Recycling: including chemical fertilizers, organic fertilizers, microbial fertilizers, water-soluble fertilizers, soil conditioners and other fertilizer packaging waste; (2) Entities responsible for recycling: fertilizer producers, operators and users are the main entities responsible for fertilizer packaging waste recycling, the first two of whom shall set up recycling devices for fertilizer packaging waste recycling. Agricultural production service organizations, supply and marketing cooperatives, and renewable resources enterprises are encouraged to carry out fertilizer packaging waste recycling. (3) Approaches for collection, storage, transportation and treatment: fertilizer packaging waste with reuse value is collected by users, recycled by market players, and reprocessed by enterprises; Those waste with no reuse value can be included in the rural garbage collection and disposal system or the pesticide packaging waste recycling and treatment system; (4) Source reduction: fertilizer producers are encouraged to use packaging that is easy to recycle and dispose of; The use of large-capacity packaging will be encouraged for easy to recycling. (5) Social services: shift to unified distribution and application of fertilizer by unified social services organizations who can be provided with large size packaging fertilizer products and carry out centralized continuous fertilization. Etc.
Feed Processing Facilities Management	The establishment of feed and feed additives production enterprises shall conform to the feed industry development plan and industrial policies, and meet the following conditions: (1) there are plants, equipment and storage facilities suitable for the production of feed and feed additives; (2) There are full-time technical personnel suitable for the production of feed and feed additives; (3) Having the necessary product quality inspection

institutions, personnel, facilities and quality management systems; (4) A production environment that meets the safety and health requirements stipulated by the State; (5) having pollution prevention measures that meet the requirements of the State for environmental protection; (6) Other conditions stipulated in the quality and safety management standards for feed and feed additives formulated by the MARA.

4.3.3.3 Institutional Organization and Performance

71. **ARABs** are the main competent authority for managing fertilizers. The Gansu Provincial DARA is responsible for provincial-wide planning and directions. ARABs at or above the county levels are responsible for the supervision and administration of fertilizers within their respective administrative areas, and, through their comprehensive law Enforcement Bureau, conduct regular or irregular supervision and inspection of fertilizers produced, operated and used by entities/farmers under their jurisdiction, require improvement of products with unqualified quality within a time limit, and shall not renew the fertilizer registration certificate after the expiration of its validity period for products with continuous unqualified quality. And through the county or township agricultural extension stations, soil fertilizer stations, plant protection stations, farmers training schools and other institutions to provide training and technical guidance to farmers

72. In the Program Counties(district), there are farming centers under each county ARAB (2~5 staff) responsible for day-to-day farmland fertilization, including the preparation of annual implementation plan for reduced use of chemical fertilizer wit efficiency improvement, provide or organize to provide services on test-based formula fertilization and technical guidance, distributing fertilizer knowledge and publicity materials to farmers, regularly releasing fertilization formulas, organizing and providing relevant training, conducting in-depth investigation and statistics on fertilizer reduction performance of farmers, making annual work summary, and improving the work plan for the next year. The E&S team's due diligence noticed that a few counties (district) still face some difficulties in promoting technology extension, and more training needs to be provided to strengthen farmers' awareness and knowledge of scientific fertilization.

73. **ARABs** at all levels are also the competent authorities responsible for regulatory of pesticide production, selling and using. The new pesticides registration certificate shall be pre-examined by the provincial DARA, reviewed and issued by MARA; The pesticide production license shall be examined and approved by the provincial DARA; ARABs at or above the county levels shall examine and approve the pesticide selling license. The ARABs at the county level are responsible for the green prevention and control of pests and diseases, pesticide reduction and safe use related to the forage crops cultivation under the PforR, and different units are set up to manage the integrated management of planting, livestock farming, agricultural product quality and safety, and farmland construction. In addition, the agricultural comprehensive law enforcement brigade under the ARABs is responsible for the supervision and inspection of the license of pesticide operators, pesticide quality and safety management; Agricultural institutions (such as agricultural technology extension stations, plant protection stations, etc.) are responsible for providing technical services and training to pesticide users, including training on the safe use of pesticides.

74. ARABs at or above the county levels are responsible for taking the lead in supervising the recycling and comprehensive utilization of agricultural waste such as agricultural mulch film, pesticide and fertilizer packaging waste and crop straw, and guiding the construction of recycling and utilization systems; EEBs at or above the county level are responsible for the supervision of waste agricultural plastic recycling and treatment activities, the prevention & control of environmental pollution from straw burning. ARABs at county level have plant protection stations or rural service centers and other institutions (2-5 people) who pay on-site survey, inspection on the recycling, comprehensive utilization of mulch film and crop straws; They have other duties, such as double checking recycling archives, conduction publicity and education activities, organization the construction relevant facilities for collection, storage and utilization of agricultural wastes and overseeing the operation of facilities. The county EEBs has Pollution Control Divisions (2~5 staff), or EPL enforcement teams (about 10 staff) to supervises the environmental protection and pollution prevention activities related to crop cultivation activities.

75. It is noticed during E&S team's due diligence that, Gansu Province issued the *"Implementation Plan of the Pilot Project of Comprehensive Utilization of Crop Straw"* in June 2023. All counties designated to the demonstration one for recycling agriculture mulch files developed their respective implementation plan, and some counties also formulated the "plans for alfalfa cultivation and pesticide use in alfalfa base". It was recorded in the annual performance summary report of ARAB of Minle County in Zhangye Municipality in

2021 that the County has carried out the zero-growth action of fertilizer and pesticide use, promoted mechanical fertilization, extended integrated water and fertilizer technologies, improved fertilizer utilization efficiency, promoted pesticide reduction and efficiency, and established 10 green organic agricultural product demonstration bases, resulting in reduced use of fertilizers and pesticides by 30%, saving water by 50%, established 10 demonstration bases for production of green and organic agro-food, 50 demonstration sites for integrated water-nutrient irrigation. A county-wide action on recycling agricultural mulch film and crop straw was taken to have built 16 standardized recycling outlets in towns and villages and a recycling network supported by village collection, enterprises transferring the reprocessing. As the result, in 2021, the county's comprehensive utilization of straw amounted to 1.817 million tons with comprehensive utilization rate of 92.47%, a total of 2,292.6 tons of wasted mulch film were recycled with a recycling rate of 73.5%.

4.3.3.4 Brief Summary

76. In terms of nutrient management, fertilizer reduction and efficiency improvement, green prevention and control of diseases and pests, pesticides use safety management, and agricultural waste management, China and Gansu Province have healthy legal frameworks, appropriate institutional Settings, personnel arrangements and financial guarantees, and have achieved significant results, which can provide guarantee for agricultural wastes management related to the PforR activities. These measures and tools are in line with the WBG's Guidelines for Annual/ Perennial Crops Production, which cover good international industry practices, such as Integrated Pest Management (IPM), in line with the Bank's core principles. Appendix 8 of this report include a list of generic mitigation measures for adverse environmental and social impacts associated with typical activities of the PforR, which can be used to combat pollution in forage cultivation and feed processing.

4.3.3 Environmental Management for Veterinary Service and Agro-food Quality Service Facilities.

4.3.3.1 Applicable Legal Framework

77. The main applicable laws & regulations on animal health, veterinary service and agro-food quality testing facilities are listed in Table 4-10 below

Table 4-10 List of Main Applicable laws & regulations on animal health, veterinary service and agro-food quality testing facilities

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
1. Animal health and diseases prevention & control		
<i>Law of the PRC on Animal Husbandry</i>	NPC issued in 2005, amended in 2022	The Law stipulates that the ARABs shall be responsible for the supervision and control of animal husbandry; Animal husbandry producers and operators shall fulfill their obligations of animal epidemic prevention and ecological environmental protection according to law, and accept the supervision and inspection carried out by relevant competent departments according to law. One of the conditions that livestock and poultry farms shall meet, are livestock and veterinary technicians available to serve them; Livestock and poultry farms shall establish breeding files that shall include the source, name, object of use, time and amount of inputs such as veterinary drugs; Quarantine, immunization and disinfection; and sanitary treatment of dead and diseased livestock and poultry, as well as manure collection, storing, sanitary disposal and resources utilization, etc.
<i>Law of the PRC On Animal Epidemic Prevention</i>	NPC issued in 1997, 2 nd amended in 2021	The Law stipulates that animals infected with epidemic diseases and their excrement, products of animals infected with epidemic diseases, animal excrement in vehicles of transport, bedding, packaging, containers and other contaminated articles shall be disposed of in accordance with the relevant provisions of the State and shall not be disposed of at will.
<i>Law of the PRC on the Prevention and Control of Environmental</i>	NPC issued in 1995, 2 nd amended in 2020	The provisions in Chapter VI of the Law - Hazardous Waste are applicable to the prevention and control of environmental pollution by hazardous waste. It includes containers and packaging of hazardous waste, as well as facilities, sites and

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
Pollution by Solid Waste		provisions for the collection, storage, transportation, utilization and disposal of hazardous waste.
National Hazardous Waste Catalogue	MEE, NDRC, Ministry of Public Security, Ministry of Transport, National HC, edition of 2021	The National Hazardous Waste Catalogue classifies medical waste as hazardous waste.
National Medical Waste Catalogue	MEE, National HC edition of 2021	The National Medical Waste Catalogue classifies medical waste into infectious waste, injurious waste and pathological waste. Each of the above two Catalogues has a "List of Hazardous Waste or Medical Waste Exemption Management " that lists the specific waste names, exemption links, exemption conditions and exemption contents.
Medical Waste Management Regulation	SC issued in 2003 , amended in 2011	The Regulation is enacted to strengthen the safe management of medical waste, prevent the spread of diseases, protect the environment and human health, and is applicable to the collection, transportation, storage, disposal and supervision and management of medical waste. The Regulation stipulates that the EEBs and HCs of the government at or above the county level shall, in accordance with the provisions of the Regulation, supervise and inspect the medical and health institutions and medical and health treatment units according to the division of responsibilities.
Management Measures for Sanitary Treatment of Dead and Diseased Livestock and Poultry and Diseased Livestock and Poultry Products	MARA issued in 2022	The Management Measures is enacted to strengthen the sanitary treatment of dead and diseased livestock and poultry and diseased livestock and poultry products, prevent and control animal diseases, promote the high-quality development of animal husbandry, and protect public health safety and human health. It is suitable for the collection, sanitary treatment and supervision and management of sick dead livestock and poultry and diseased livestock and poultry products in the process of livestock production, slaughtering, operation, isolation and transportation. The Management Measures stipulates that ARABs of the local people's governments at or above the county level shall be responsible for the supervision and administration of the sanitary treatment of dead and diseased livestock & poultry and diseased livestock and poultry products in their respective administrative areas.
Technical Specification for Harmless Treatment of Livestock and Poultry Manure	2018	The technical requirements for the layout of livestock and poultry farms and farming zones, manure storage, wastewater treatment, solid manure treatment and utilization, feeding and management, treatment of dead and diseased animals, and pollutant monitoring are specified.
Regulation on Pollution Prevention and Control of Scaled Livestock and Poultry Production	SC issued in 2013	The Regulation applies to the prevention and control of pollution from livestock farms and farming zones (excluding grazing and breeding in pastoral areas). The EEBs of the people's government at or above the county level shall be responsible for the unified supervision and administration of the prevention and control of pollution from livestock and poultry production. The Regulation prohibits the construction of livestock farms and farming zones in environmentally sensitive areas such as urban residential areas, cultural, educational and scientific research areas and other populated areas. The construction, reconstruction or expansion of livestock farms and farming zones shall conform to the plans for the development of animal husbandry, the plans for the prevention and control of pollution from livestock and poultry production, and meet the conditions for animal epidemic prevention. The corresponding pollution control facilities to be built in livestock and poultry farms and farming zones shall include comprehensive utilization and sanitary treatment facilities such as disposal of livestock and poultry carcasses.
Measures for Biosafety Environmental Management of PMLs	State Environmental Protection Administration (former MEE) issued in 2006	PMLs shall install or be equipped with pollution prevention facilities and equipment in accordance with the state regulations on environmental protection, the EIA documents approved by competent EEB. To prevent and control potential adverse environmental pollution from the operation PMLs, the Measures set forth a number of provisions, including 1) pollution control facilities/equipment to be installed, environmental acceptance check at construction completion, pollution permits; 2) proper collection, storage and disposal of hazardous waste generated from the PMLs; 3) Keep recording

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
		of and filling of experiment activities, which shall cover the harmless treatment, centralized disposal and inspection of wastewater, exhaust gas and hazardous waste; 4) PML shall formulate emergency plan for environmental pollution, submit it to the competent administrative department of environmental protection of the local people's government at the county level for the record, and conduct exercises regularly; 6) formulate the rules and regulations for the prevention and control of laboratory waste water, waste gas and hazardous waste pollution, and assign special (and part-time) staff responsible for environment, and be subject to the supervision of EEBs at or above the county level.
2. Agro-food Quality and Public Health & Safety Management		
<i>Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste</i>	NPC issued in 1995, 2 nd amended in 2020	Article 73 of the Law - Laboratories of all types and levels and their establishment entities shall strengthen the management of solid waste generated by laboratories, and collect, store, transport, utilize and dispose of laboratory solid waste according to law. Laboratory solid waste belongs to hazardous waste, shall be managed as hazardous waste.
<i>National Hazardous Waste Catalogue</i>	MEE, NDRC, Ministry of Public Security, Ministry of Transport, National HC, edition of 2021	The provisions in Chapter VI - Hazardous Wastes of the Law apply to the prevention and control of environmental pollution by hazardous wastes. The provisions include containers and packaging of hazardous waste, as well as facilities, sites and stipulate the collection, storage, transportation, utilization and disposal of hazardous waste. The Catalogue classifies part of the experimental waste generated by chemical and biological laboratories as hazardous waste; At the same time, the Catalogue listed the "exemption Management activities for handling hazardous waste", including the specific waste names, exemption links, exemption conditions and exemption contents
3. Gansu Provincial Regulations and Measures		
<i>Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management</i>	Gansu Provincial Government issued in 2007	The Regulation & Measures put forward specific requirements for epidemic prevention, waste sanitary treatment facilities and on the site selection, layout, and introduction of breeding stock, animal immunization, required veterinary drugs, and sanitary treatment of dead and diseased livestock. The Regulation & Measures also put forward specific requirements for waste treatment and pollution prevention.
<i>Gansu Province "Notice on Further Standardizing the Management of Medical Waste"</i>	HC, DEE, DRC, Department of Public Security of Gansu Province issued in 2017	The Notice puts forward relevant provisions to strengthen the management of medical waste in medical and health institutions, standardizes the operation activities of entities engaged in centralized disposal of medical waste, calls for strengthened management of medical waste in grass-roots medical and health institutions, and standardized management and supervision of medical waste.

4.3.3.2 Implementation Mechanisms and Procedures

78. Implementation mechanisms and procedures for controlling pollution from animal health and agro-food quality service facilities are summarized in Table 4-11 below.

Table 4-11 Implementation Mechanisms and Procedures for Controlling Pollution from Animal Health and Agro-food Quality Service Facilities

Implementation Mechanisms/ Procedures	Description
Hazardous Waste Collection and Disposal	Hazardous waste transfer shall be efficiently controlled throughout the process, and go through relevant procedures in accordance with laws, administrative regulations and relevant provisions of the State. No transfer shall be made without the approval of the competent authority. Any entity engaged in the collection, storage, utilization and disposal of hazardous waste shall obtain a license in accordance with the relevant provisions of the State and operation of the entity shall comply with relevant laws and regulations and applicable environmental protection standards. Hazardous waste shall not be dumped or stacked without authorization. Pursuant to legal requirement, entities producing hazardous waste shall develop plans for managing hazardous waste and register for endorsement by following legal procedures. If entities producing hazardous waste have obtained pollution discharge permits, the provisions of the discharge permit management system shall be applicable.

Hazardous Waste Transfer	Entities producing hazardous waste shall establish ledger for managing hazardous waste and keep records of relevant information, monitoring data, and declare to local EEBs of their hazardous waste categories, production quantity, source, flow direction, utilization, storage, disposal and other relevant information through the hazardous waste information management system.
Hazardous Waste Emergency Response	Entity engaged in the collection, storage, utilization and disposal of hazardous waste shall formulate prevention measures and emergency plans for control environmental pollution by hazardous waste. Relevant responsible departments shall inspect the implementation of the said preventive measures and emergency plans.
Medical Waste Management	Medical and health institutions and centralized medical waste disposal entities shall obey by laws, administrative regulations and relevant provisions of the State, submit information on the generation, collection, storage, transportation and disposal of medical waste to the HCs, transportations, EEBs of the people's governments at or above the county level, and take effective measures to prevent the loss, leakage, infiltration and spread of medical waste. Medical and health institutions shall, according to law, sort and collect the medical waste generated and hand it over to the centralized treatment entities for disposal. The centralized medical waste disposal entity shall be reasonably equipped with collection and transfer facilities and vehicles, and collect, store, transport and dispose of medical waste in accordance with applicable regulations. Infectious medical waste shall be collected, stored, disinfected, transported, disposed of and kept in accordance with applicable regulations and keep record of such data.
Labs Waste Management	Laboratories at all levels and of all types and their establishment units shall, in accordance with the law, strengthen the management of solid waste generated by the labs, and collect, store, transport, utilize and dispose of laboratory solid waste in accordance with the law. Labs solid waste belongs to hazardous waste, shall be managed as hazardous waste.

4.3.3.3 Institutional Organization and Performance

79 . During the due diligence, the Bank E&S team was informed that Gansu DARA once developed a provincial-wide plan for sanitary disposal of dead and diseased animals, including 18 regional centralized sanitary disposal centers by the year 2025, 8 of them have been constructed and operated as of the 1st half of 2023, 4 of them are under construction, and remaining of 6 of them (like the one sited in Jingchuan county serving Pingliang Municipality) are to be supported by the PforR or funded by other sources in parallel. In the Program counties (district), means of dead and diseased animals vary among different livestock farms, farming zones, cooperatives and smallholders. Those large scale livestock farms run by enterprises, due to the large scale farm facilities with standardized design, are well-equipped with dead and diseased animal sanitary treatment facilities (e.g., rendering machine, incinerator, etc.) or have their dead and diseased animals outsourced to specialized enterprises for sanitary treatment or resources utilization (e.g., biodiesel, organic fertilizer) and operated under standardized procedures set forth in the corporate management system. Pollution from dead and diseased animals can be well-controlled and comply with the *"Measures for the Management of Sanitary Treatment of Dead and Diseased Livestock and diseased livestock and Poultry Products"*, While, those livestock farming zones run by farmer cooperatives or households, with farming capacity relatively smaller than that of farms, have inadequate or poorly-equipped rooms for isolating diseased animals, storing and sanitary treatment of dead and diseased animals. Layout and farming facilities can be improved to meet the requirements of *"Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management"* and these improvements can be supported by the PforR. In the past, dead and diseased animals were deeply buried far away from the villager's residential areas. In recent years, through the implementation of the mechanism of linking insurance with sanitary treatment of dead and diseased livestock, the government provides subsidies to all farmers and livestock farming cooperatives to encourage them to buy insurance from professional insurance companies against the sanitary treatment of their dead and diseased animals. Once the insurance buyers notify the cases of dead and diseased animals, the insurance company shall mobilize the sanitary treatment center or the qualified enterprise that meets the sanitary treatment standards to transfer the dead and diseased animals to the designated sanitary treatment point or facility by special transportation means for disposal, and accept the supervision of county-level AHVMBs.

80 . HCs and EMBs are responsible for macro coordination and supervision of health and safety issues related to livestock production. The facilities' operators/enterprises are responsible for specific health and safety management. The sector authorities (ARABs, EEBs, Housing and Urban & Rural Construction Bureaus) at county-level are responsible for supervision of the respective sectoral health & safety issues. These sectoral authorities conduct regular inspection (normally once a month) on occupational health and safety (OHS) issue. For example, the law enforcement teams of ARABs, during their regular inspections, will request livestock farms and farming zones to enhance OHS of their employees and improve their deodorization devices, remind

and guide farmers/cooperatives to store and use pesticides safely and wear personal protective equipment (PPE) at work to protect themselves and avoid toxic accidents to the public or users.

81 . To handle medical waste, other hazardous waste from veterinary service labs and agro-food quality testing labs, certified competent agencies/companies were assigned to provide unified recycling and disposal of the said wastes. For example, Gansu Jinchuang Lufeng Environmental Technology Co., LTD has been assigned to serve for Lanzhou New District, Minle County and Sunan County; Pingliang Municipal Huanchuang Medical Waste Centralized Disposal Co., LTD has been assigned to serve for Jingchuan County and Lingtai County; Qingyang Municipal Medical Waste Center has been assigned to serve for Zhengning County; and Yumen Municipal Runze Environmental Protection & Renewable Energy New Technology Co., LTD has been assigned to serve for Guazhou County. Agreements have been signed among them respectively for recycling and disposal of hazardous waste and unified bills are used to transfer hazardous waste regularly for recycling or disposal. The veterinary service labs and agro-food quality testing labs have been subjected to EIA and environmental acceptance check at construction completion (see Appendix 7 for details).

4.3.3.4 Brief Summary

82 . China and Gansu Province have a mature regulatory framework for managing environmental pollution from veterinary service labs and food quality testing labs, appropriate institutional settings, staffing and financial support, and have achieved significant results to support the management of the program activities. The management system is consistent with the WBG's Environmental, Health and Safety Guidelines and is in line with the Bank's core principles.

4.4 Eco-environmental Conservation Management System

4.4.1 Natural & Grasslands Ecological Conservation

83. Gansu Province is located in the Yellow River water conservation area, and other inland rivers birthplace, such as rivers of Dang, Shule, Black, Shiyang etc. It has irreplaceable ecological regulation functions such as water conservation, ecological function and wildlife protection function. The Qilian Mountains, located in the northeast of the Qinghai-Tibet Plateau, span Gansu and Qinghai provinces. It is an important ecological security barrier and an important source of water in western China, as well as a key ecological functional area and a priority area for biodiversity conservation in China. Qilian Mountain National Park covers an area of 50,200 square kilometers, more than two-thirds of which are in Gansu province, involving Sunan County and Minle County of the project; Anxi Extreme Arid Desert National Nature Reserve (covering 800,000 square hectares) is located in Guazhou County, Gansu Province.

- **Qilianshan National Park** is located at the junction of Gansu and Qinghai provinces. It is one of the top ten national parks in China. The Park covers total area of 50,200 square kilometers, including 34,400 square kilometers in Gansu and 15,800 square kilometers in Qinghai. In September 2017, the Chinese government approved the establishment of the Qilian Mountain National Park, with the main responsibility of protecting the biodiversity, the authenticity and integrity of the natural ecosystem in the Qilian Mountain. As one of the important parts in the Park, the Gansu Qilian Mountain National Nature Reserve, is in the middle and east section of the north slope of the Qilian Mountains in Gansu Province, covering municipalities of Wuwei, Jinchang and Zhangye, involving 8 counties including Minle County and Sunan Yugur Autonomous County. In 1988 The State Council approved the Natural Reserve to be a forest and wildlife type targeting the conservation of Qinghai spruce, Qilian cypress, demoiselle crane and other creatures.
- **Anxi Extreme Drought Desert Natural Reserve** is located at the intersection of temperate desert, extreme arid desert and typical desert in central Asia. This Natural Reserve is in the junction of Qinghai-Tibet Plateau and Mongolia-Xinjiang Desert, and its desert ecosystem is typical and representative in the whole ancient Mediterranean region. It is the only multi-functional comprehensive natural reserve in China to protect the extremely arid desert ecosystem and its biodiversity. The reserve covers a total area of 800,000 ha, of which, the core zone covers 83,900 hectares, accounting for 10.5% of the reserve area. The buffer zone covers 131,200 hectares, accounting for 16.4% of the protected area. The experimental zone covers 584,900 hectares, accounting for 73.1% of the protected area.
- **Guazhou Tangtun Lake Nature Reserve** (protected at provincial-level) is a typical wetland in the

extreme arid desert area in the western inland. Part of the groundwater that has infiltrated into the protection area forms surface runoff in the form of spring water, which evolves into seasonal marshes and spring-fed rivers, forming a unique ecological landscape of the reserve and becoming an ideal place for migratory birds to live and breed. The core zone is 22,496.7 hectares, the buffer zone is 20,211 hectares, and the experimental zone is 28,852.3 hectares, accounting for 40.3%. Among the protected area: forest land accounted for 60.4%; grassland accounted for 22.3%; wetlands account for 6%.

84. Gansu Province is located at an area prone to soil erosion in China. The seven Program counties (district) are located in the Hexi (west to the Yellow River) Corridor and Qilian Mountain key soil erosion prevention and prevention areas, and the Longzhong (middle Gansu) and Longdong (eastern Gansu) key soil erosion management areas. Gansu bears responsible for ecological protection and restoration, water and soil conservation, and the construction of ecological safety protection barriers.

85. The typical activities under RA1-sustainable grassland management for the PforR will be implemented partially in above-mentioned natural reserves, triggering the ecological conservation redlines ECL; While, such typical activities as artificial forage plantation, livestock breeding & raising and animal health & disease prevention and control under RA 2 of the PforR will be almost implemented in rural and quasi-urban area. Sub-sections below will analyze and evaluate these activities related to natural habitat and grassland ecological protection, soil and water conservation management systems

4.4.1.1 Applicable Legal Framework

86. The National and Gansu Provincial applicable laws and regulations on natural and grassland eco-environment are listed in Table 4-8 below.

Table 4-11 A List of Applicable Laws and Regulations on Natural and Grasslands Eco-environment

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
1. Natural Ecology Conservation		
Law of the PRC on Wetland Protection	issued by National People's Congress (NPC) & State Council (SC) in 2022	This law is to strengthen the protection of wetland, maintain wetland ecological function and its biodiversity, safeguard ecological security and promote the construction of ecological civilization. Wetlands are classified into important wetlands and general wetlands for better management in China. Except for national major projects, no other project is allowed to occupy national important wetlands. All construction projects are required to avoid wetlands in site or route selection, while if wetlands cannot be avoided, efforts should be made to minimize occupation and proper measures should be taken to mitigate the adverse impacts on the ecological functions of the wetlands. If site or route selection cannot avoid national important wetlands, comments must be sought from the national FGB. If provincial important wetlands or general wetlands are involved, comments must be sought from the FGBs at or above county level.
Law of the PRC on Wild Animal Protection	NPC issued in 1988, 4 th amended in 2022	If a construction project may have adverse impacts on nature reserves or wild animals' migration routes, the EEB that is in charge of reviewing and approving EIA documents ¹⁷ for a construction project, should seek opinions of the same-level wildlife protection authorities. Any illegal hunting of wild animals and destruction of natural habitats are prohibited.
Wild Plants Protection Regulations	SC issued in 1996 and amended in 2017	If a construction project may have adverse impacts on growing environment of national or local protected wild plants, the PIU must ensure the impacts be assessed appropriately in the EIA. Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment. Hunan Province also has the corresponding Regulations on the Protection of Wild Animal and Plant Resources (promulgated by the People's Congress of Hunan Province in 1988 and revised for the sixth time in 2020).
Nature Reserves Regulations	SC issued in 1994 and 2 nd amended in 2017	A nature reserve must be set up to protect an important habitat. No one is allowed to enter core zones of nature reserves (except for approved scientific research activities). No production facility is allowed to be built in core and buffer zones of nature reserves. No production facility that may pollute the environment or destroy natural resources or

¹⁷ EIA documents: refers to the EIA report, and EIA form to be prepared respectively for the construction projects that may cause major environmental impact and mild environmental impact as per the requirement of Classified EIA Management Catalogue Construction Projects.

		landscape is allowed to be built in experimental zones. Accordingly, Gansu Province first promulgated Gansu Provincial Natural Reserves Regulation in 1996, and amended it in 2018.
Law of the PRC on Agriculture	NPC issued in 1993 and 2 nd amended in December 2012	To develop agriculture and rural economy, natural resources such as land, water, forests, grasslands, wild animals and plants must be rationally utilized. Ecological agriculture shall be developed for improving the ecological environment.
Law of the PRC on Forest	NPC issued in 1984, 2 nd amended in 2019	This Law applies to the protection, cultivation and utilization of forests, trees and the management of forests, trees and woodlands within the territory of China. Forest resources shall be owned by the State, except those owned by collectives as prescribed by law. The Law stipulated that the State shall strengthen the protection of forest resources, and give the functions of forests (e.g., as water storage and soil conservation, climate regulation, environment improvement, biodiversity maintenance and forest products) into full play. A system of natural protected areas with national parks as the mainstay shall be established in the typical forest ecological areas in different natural zones, forests where precious animals and plants grow and reproduce, natural tropical rainforests and other natural forests of special protection value for strengthened protection and management.
Law of the PRC on Animal Husbandry	NPC issued in 2005, amended in 2022	Animal husbandry producers and operators shall fulfill the obligations of animal epidemic prevention and ecological environmental protection according to law, and accept the supervision and inspection carried out by the relevant competent departments according to law.
Guiding Opinions on Establishing a System of Natural Protected Areas with National Parks as the Mainstay	SC issued in 2019	The aim is to build a Chinese special system of natural protected areas with national parks as the mainstay. In accordance with the natural ecosystem of authenticity, integrity, systematisms and inherent law, nature protected areas are classified into three categories based on the ecological value and significance in the order of protection intensity: e.g., national parks, then nature reserves, and natural parks.
Opinions on Accelerating the Construction of Ecological Civilization	SC issued in 2015	It is required to strictly safeguard ecological conservation redlines (ERL), and delineate ERL in key ecological function areas, sensitive and vulnerable areas to ensure that ecological functions are not reduced, their size is not reduced, and their nature is not changed. Subsequently, the Chinese government issued the Technical Guidelines on Delineating ERL, the Guiding Opinions on Strengthening the Management and Control of the Red Lines for Resources, Environment and Ecology, and the Technical Guidelines on the Preparation of the "Three Lines and One Order", and so on.
China Biodiversity Conservation Strategy and Action Plan (2011-2030), etc.	SC issued in 2010	Three strategic objectives of biodiversity conservation in China are put forward: the immediate goal is to effectively curb the decline of biodiversity in key areas by 2015; The medium-term goal of achieving basic control of biodiversity loss and loss by 2020; The vision is to ensure that biodiversity is effectively protected by 2030. Relevant to the Action Plan are: <ul style="list-style-type: none">● National List of Rare and Endangered Plants, 1991● List of Wildlife under Special State Protection, 1989, etc.
Opinions on Further Strengthening Biodiversity Conservation	Central Committee of Communist Party of China (CPC) & SC issued in 2021	On the basis of the current system of protected natural areas with national parks as the mainstay, China will continue to promote the baseline survey and assessment of priority regions and national strategic regions for biodiversity conservation, and build a national biodiversity monitoring network and a relatively stable spatial framework for biodiversity conservation. China will speed up the establishment and improvement of laws & regulations for biodiversity conservation, incorporate biodiversity conservation into mid-term, long-term plans of all sectors and all levels of government, formulate and improve policies and institutions related to biodiversity conservation, build a complete monitoring system for biodiversity conservation, improve biosafety management, innovate mechanisms for sustainable use of biodiversity, and strengthen enforcement, supervision and inspection of relevant laws & regulations. China will deepen international cooperation and exchanges, comprehensively and promote public participation in biodiversity conservation, and improve safeguard measures for biodiversity conservation.
Guiding Opinions on Delineation and Implementation of	SC issued in 2019	The three control lines in terms of ecological protection redlines, permanent basic farmlands, and urban development boundaries should be delineated and implemented in an integrated way. A national territorial spatial basic information platform should be

Three Control Lines in Territorial Spatial Planning		established and improved to realize cross-sectoral information sharing and monitor the implementation of the three control lines. Occupying any ecological protection redlines or permanent basic farmlands is subject to approval by the State Council.
Opinions on Delineation and Strictly Safeguard Ecological Protection Redlines	Central Committee of CPC, SC issued in 2017	It aims to protect important ecological space by setting up redlines to ensure non-degradation of ecological functions, non-reduction of ecological space, non-changes of ecological property, and to protect the country's ecological safety and promote sustainable economic and social development. In principle, the ecological protection redlines should be regarded and managed as the areas within which developments are prohibited.
Circular on Strengthening Management of Ecological Protection Redlines (Trial)	MNR, MEE, NFGA jointly issued in August, 2022	The ERL will be strictly managed and controlled through: (1) enhanced data sharing, e.g., the ERP scheme approved by the State Council is incorporated into "one map" of national land spatial planning, connected with the ERL environmental monitoring platform under MEE for information sharing; (2) intensified regulatory management, e.g., the NRBs at all levels shall work together with relevant authorities to strengthen oversight and inspection of the implementation of BPR. NRBs at all levels shall strictly control and supervise the territorial and spatial use regulation, EEBs at all levels should conduct ecological and environmental supervision on the ERL, FGBs at all levels should focus on the supervision and administration of natural protected areas; (3) controlled strictly adjustment procedures, e.g., once the ERL has been delineated, it is strictly prohibited to be adjusted without approval. Based on the monitoring of the carrying capacity of resources and the environment, the evaluation on the importance of ecological conservation and the implementation of the territorial and spatial planning shall be carried out once in five years, provincial level government may work out partial adjustment on the ERL scheme, incorporate them into the revised plans for the territorial and spatial planning that are subject to the approval of The State Council, and send a copy to MEE.
Guiding Opinions on the Implementation of the "Three-line, One-List" Ecological Environment Zoning Control (Trial)	MEE issued in Nov. 2021	With no reduction in ecological functions, no decline in environmental quality, and no breakthrough in the carrying capacity of resources and the environment as the bottom line, it is required to implement the "three-line, one-list" ecological environment zoning control requirements, resolutely stop production and construction activities in violation of the provisions of the ecological environment access list, and constantly strengthen the prevention and control of the ecological environment at the source. The "three lines, one order" system provides a hard constraint for the implementation of strategic and planning EIA, the approval of construction project EIA, and provides a basis for space control for other environmental management work.
Measures for Ecological and Environmental Supervision on the ERL (Trial)	MEE issued Dec. 2022	This Measures is applicable to the ecological environment supervision work carried out by the MEE/EEBs. It is stipulated that the MEE is responsible for organizing the supervision of the ecological environment of the national ERLs, and the provincial EEDs are responsible for organizing the supervision of the ERLs in the administrative region, the content of the supervision work and the main process of the supervision work.
Regulations on the Management of Qilian Mountain National Nature Reserve in Gansu Province	GPPC issued in Nov. 2017	In the conservation areas, we must focus on management and protection, carry out comprehensive and in-depth scientific research, carry out ecological restoration work such as sealing mountains and cultivating forests and grass according to local conditions, continuously expand forest and grass vegetation area, strengthen the protection of glaciers, wetlands, frozen soil and wild animals and plants, obey the positioning of key ecological functional areas determined by the main functional zoning of the State, and improve ecological service functions. No production facilities shall be constructed in the core zone and buffer zone of the reserve. It is prohibited to hunt, kill, and purchase or traffic wild animals in the reserve. It is prohibited to introduce exotic wild plants in the reserve; It is also prohibited to release wild animals introduced from outside the area in the reserve.
Interim Measures for Supervision and Administration of Construction Projects in Qilian Mountain National Park	NFGA issued in 2020	The Interim Measures is a sectoral regulation for the standardization supervision and management of the construction facilities ¹⁸ or construction projects in Qilian Mountain National Park. The park zoning is divided into core protected zone and general control zone, and differentiated management is implemented. The Interim Measures stipulated the types of new production facility activities that could be allowed or couldn't be allowed to be approved in the core zone and the general control zone respectively.

¹⁸ Construction facilities refer to the construction of facilities by means of traversing space or occupying land, including the construction of permanent facilities and temporary facilities.

Qilian Mountain National Park Industrial Access List	NFGA issued in 2020	<p>The Access List is an important basis for strictly controlling all kinds of development activities in Qilian Mountain National Park. The main body of the list is "restricted access", and the items outside the list are prohibited. It is divided into the access lists in general control zone and core protected zone respectively:</p> <ul style="list-style-type: none"> ● Industrial access list in general control zone (2020 edition): It is stipulated, only the listed projects, ecological protection and restoration projects, the transformation of residents' production and living facilities that do not damage the functions of the ecosystem, as well as natural tourism, ecological experience, indigenous grazing, farming and other activities in line with the national park planning can be allowed access projects/activities in the core protected zone. Other production and construction activities are prohibited. ● Industrial access list in core protected zone (2020 edition): It is stipulated that in addition to the necessary protection facilities, ancillary facilities and scientific experiments, no other construction and production activities shall be carried out in the protected zone.
Regulations on the Management of Anxi Extreme Drought Desert National Nature Reserve in Gansu Province	GPPC issued in 2008, repealed in 2020	Due to the fact that some provisions in the Regulation do not comply with the provisions of the upper Law and other reasons, it was repealed by GPPC in July 2020. At the same time, it is clear that the current relevant laws and regulations have been able to meet the needs of the protection and management of nature reserves, and the content of the above law has been clearly stipulated without repetitive provisions.
Other agricultural biodiversity protection laws and regulations		Seed law, Measures for Management of Agricultural Seed Substance Resources , implemented a series of programs for conserving agricultural biodiversity, such as China's biodiversity Conservation Strategy and Action Plan, Outline of the National Plan for Conservation and Utilization of biological species Resources, National Medium-and long-term Development Plan for the Protection and Utilization of Crop germplasm Resources (2015-2030), etc. In the construction of the natural protected areas system, a multi-level agrobiodiversity conservation system is also established, which combines the original habitat protection sites of agricultural wild plants and the ex-situ conservation of germplasm banks and germplasm nurseries; Efforts are made in increase diversity of flora, fauna and microorganisms in agroecosystems through the reduction of pesticides and chemical fertilizer use, recycling and reusing of livestock and poultry manure, crop residues, agricultural mulch for agricultural NPS pollution reduction.
Opinions of the People's Government of Gansu Province on Implementing the "Three-line, One-list" ecological Environment zoning Control	Gansu Provincial Government issued in 2020	<p>The provincial territory was delineated into a total of 842 environmental control units, categorized as priority protection units (491), key control units (263) and general control units (88). The units will be implemented in the way that are classified management and control.</p> <p>To manage and control the environmental control units, it is stipulated that "ecological environmental laws and regulations, national, provincial and key regional (river basin) environmental management policies shall be strictly implemented, the regional development strategy and ecological function positioning shall be accurately followed to establish and improve an our-level lists system of the "1+5+15+N", comprising provincial, key regions/river basin), municipal and all types of environmental control units for implementation, i.e.,</p> <ul style="list-style-type: none"> ● "1" refers to the provincial-level list, reflecting the fundamentality and bottom linearity requirement of units in the Province; ● "5" refers to the list of key regions/river basins of inland rivers under Qilian Mountain, the Yellow River in the middle, Gannan plateau region, eastern & middle region of Gansu, Qinba mountainous at the south of Gansu, reflecting the special characteristics and specialties of units in the key regions/river basins; ● "15" refers to municipal-level list, reflecting territoriality, locality requirement of the units within the municipality; ● "N" (842) refers to the list of environmental control units, reflection difference and site-specific.
2. National Sectoral Technical Standards		
EIA Technical Guidelines - Ecological	HJ19-2022 sectoral standard issued	Efforts should be made to avoid occupation of any ecological sensitive areas when selecting site or alignment for a construction project. Ecological impacts at different stages should be identified, predicted, and evaluated. Feasibility of the project should be

Impacts	by MEE	determined by taking consideration the ecological impacts. Ecological protection measures should be proposed in accordance with the mitigation hierarchy of avoidance, reduce, restoration, and compensation.
Technical Specifications for ERL Supervision-Baseline survey	HJ 1140—2020 sectoral standard issued by MEE	This technical specifications specified the requirements for the process, content, technology and method of the baseline survey on ERL and application of taking the baseline survey as basic information for ERL supervision, as well as the application of the result of baseline survey.
Technical Specifications for ERL Supervision-ecological status monitoring (trial)	HJ 1141—2020 sectoral standard issued by MEE	This technical specifications specified the monitoring method, technical process, monitoring items, monitoring indicators and frequency, and quality control requirements of ecological status within the scope of ERL. This technical specifications is applicable to the dynamic monitoring of the surface area, nature and function and human disturbance activities within the territorial area of ERL by the comprehensive use of satellite remote sensing, aerial remote sensing and ground monitoring methods, and applicable to the monitoring of dynamic changes of ecological status within the territorial ERL in administrative regions at and above the county level.
3. Grasslands Eco-environment Conservation and Restoration		
Grassland Law of the PRC	NPC issued in June 1985, 3 rd amended in 2021	The purpose of the law is to protect, build and rationally use grasslands (natural grasslands and artificial grasslands), improve the ecological environment, maintain biodiversity, develop modern animal husbandry and promote sustainable economic and social development. Grasslands are owned by the state, except those that are owned by collectives as prescribed by law. The regulations stipulate the ownership of grasslands and the planning, construction, utilization, protection, supervision and inspection of grasslands. Three important mechanisms for grassland protection are provided, namely, basic grassland protection mechanism, grassland and livestock balance mechanism, and grazing ban mechanism. The State encourages and supports the construction of artificial grasslands, the improvement of natural grasslands and forage and feed bases. The State applies a mechanism of protection to basic grasslands ¹⁹ , and prohibits the extraction of plants and other activities that damage grassland vegetation in deserts, semi-deserts, grasslands that are seriously degraded, sanded, salinized, stony desertification, soil erosion, and grasslands in ecologically fragile areas.
Regulation on Grasslands of Gansu Province	GPPC issued in 2006, amended in 2022	According to the Regulation , people's governments at all levels shall, in accordance with the plans for the protection, construction and utilization of grasslands, designate areas for the control of grasslands that are degraded, decertified, salinized, desertification and soil eroded, and make special efforts to control them. Efforts shall be made to promote and improve grasslands by means of no-tillage supplementary sowing, broadcast sowing and air sowing in accordance with local conditions, strengthen the construction of grass seed bases, encourage and support the selection, introduction and promotion of fine forage varieties suitable for local conditions, strengthen supervision and management of grass seed production, processing, introduction, promotion, management, inspection and quarantine, and ensure the quality of grass seeds. At the same time, people's governments at all levels shall implement the mechanism of determining grazing capacity based on biomass of grassland and balance between forage and animal. The governmental FGBs at or above county level shall, in accordance with the standards for the carrying capacity of livestock on the grasslands formulated by NFGA under The State Council, check and approve the carrying capacity of livestock once in every five years, and establish a file for the grass-livestock balance.
Animal Husbandry Law of the PRC	NPC issued in 2005, and amended in Oct. 2022	The State supports the scientific use of grasslands, promotes the coordinated development of grassland protection and grassland animal husbandry, gives ecological priority and integrates production and ecology, develops industries with unique advantages, increases the income of farmers and herdsman, improves the capacity for sustainable development of grasslands, builds a strong ecological security barrier, and promotes the coordinated development of production and ecological life in pastoral areas. The State encourages the promotion of feeding methods such as shed-feeding or semi-shed-feeding in enclosures, seasonal grazing and rotation grazing in zones, so as to rationally allocate herds and maintain the balance between grass and livestock.

¹⁹ Basic grasslands include: 1) important pasture, 2) hayfield, 3) artificial grassland, grassland returned from farmland and improved grassland, and grass seed base for animal husbandry production, 4) grassland with special function for regulating climate, conserving water source, conserving soil and water, preventing wind and fixing sand, 5) grassland that are the key the living environment for national key protected wild animals and plants, 6) grassland used for scientific research or used as teaching experimental base, 7) other grasslands that shall be classified as basic grasslands as stipulated by The State Council

<p>Measures for the Management of Balance between Grass and Livestock in Gansu Province</p>	<p>GPPC issued in 2019</p>	<p>The available grasslands outside the grazing prohibited areas of the province shall implement the system of grass-livestock balance. The implementing mechanism of grass-livestock balance shall be demarcated by Gansu provincial governmental FGB. The county governmental FGBs shall: 1) set up an expert group to verify the livestock carrying capacity of the grasslands, 2) solicit the opinions of users and contracting operators of the grasslands, 3) verify the livestock carrying capacity of the grasslands, and 4) specify the livestock raising capacity of users or contracting operators of the grasslands. In case livestock overloaded the verified livestock carrying capacity, an overloaded livestock reduction plan shall be developed. The implementation of grass-livestock balance mechanism should be incorporated into the governmental target management responsibility system, and the county and township, township and village, village and household should sign liability statement for managing balance between grass and livestock. The grass-livestock balance mechanism shall be inspected and supervised by means of surveillance tests, reporting and notification.</p>
<p>Regulations on Grassland Fire Prevention</p>	<p>SC issued in Nov. 2008</p>	<p>The purpose of the Regulations is to strengthen the work of grassland fire prevention, actively prevent and rescue grassland fires, protect grasslands, and ensure the safety of people's lives and property, and apply to the prevention and rescue of grassland fires within the territory, except in forest areas and urban areas. The principle of combining prevention with fire control is adopted, and relevant provisions are made for the prevention, fighting and post-disaster disposal of grassland fires.</p> <p>Accordingly, Gansu Government issued in 2010 its Measures for Grassland Fire Prevention in Gansu Province</p>
<p>Other Gansu provincial and local relevant laws and regulations and policy opinions, notices Gansu provincial and local relevant laws and regulations and policy opinions, notices</p>		<ul style="list-style-type: none"> ● Several Opinions of the General Office of the Gansu Provincial Government on Strengthening the Protection and Restoration of Grasslands (2021) ● Implementation Opinions on Further Strengthening Biodiversity Conservation in Gansu Province (2022), and county-level Biodiversity Conservation Plans. ● Gansu Province Grassland Pest Emergency Control Plan (2022), the county-level Grassland Pest Emergency Control Plans, as well as Emergency Plan for Alien and Emergent Forest Pest Disasters, etc. ● The Implementation Opinions on Comprehensively Promoting the Three-year Action of "Green Guazhou" to further implement the strategy of "Ecological County Development ● Notice on issuing the System for the Management and Protection of Natural Forest Resources in Qilian Mountain Nature Reserve (Qilian Mountain National Park) and other regulations ● Annual key points of grassland work in Gansu province ● Notice of Zhangye Municipal People's Government on printing and distributing the "Three-Line, One-List" Ecological Environment Zoning Control Plan ● Notice of Minle County Government on issuing the Implementation Plan of the Third Round of Grassland Ecological Protection Subsidy and Incentive Policy (2021-2025) ● Notice of the Office of the Leading Group of Guazhou County for the Comprehensive Implementation of the Forest-Grassland-Chief System on Further Strengthening the Management of Returning Farmland to Forest and Grassland and the implementation of the system of grassland grazing prohibition and grass-livestock balance. ● Minle County's Implementation plan for Strengthening supervision of "Green Shield 2022" Nature Protected Area ●

4.4.1.2 Implementation Mechanism and Procedures

87. In order to implement the above laws and regulations on the conservation of the natural and grasslands eco-environment, China has established and is gradually improving the relevant implementation mechanisms, which are listed in Table 4-8 below.

Table 4-12 Implementation Mechanism and Procedures for Eco-environmental Conservation

Implementation Mechanisms/ Procedures	Description
1. Natural Eco-environment Conservation	
Mechanism of nature protected areas	Following the instruction of Guiding Opinions on Establishing a System of Natural Protected Areas with National Parks as the mainstay, China is accelerating the establishment of a system of protected natural areas with national parks as the mainstay, and step up efforts to protect the natural ecosystem. In order to promote functions optimization and system restructuring, the various types of existing natural protected areas ²⁰ , are comprehensively assessed and reclassified based on their nature, value, and significance, to form a nature protected areas system composed of national parks, nature reserves, and natural parks. Almost all the natural protected areas are delineated within the scope of ERL and strictly protected. National parks and nature reserves have core zones and ordinary zone. Human activity is prohibited in core zone and restricted in ordinary zones. Natural parks are managed as ordinary zones in principle. To deepen institutional reform, the National Forest and Grassland Bureau was established based on original National Forest Bureau and its counterpart (FGBs) at all levels who integrated responsibility of supervision and management on natural protected areas distributed originally to various government authorities to preform integrated management on natural protected areas.
Mechanism of ecological conservation redlines	ERL mechanism is an important institutional innovation in ecological and environmental protection in China. Government authorities such as NRBs, EEBs and FGBs integrate and reorganize the areas that have important ecological functions (such as water conservation, biodiversity conservation, water and soil conservation, wind prevention and sand fixation, and coastal protection, etc.) and the areas that are extremely sensitive or vulnerable (e.g., soil erosion, soil desertification, rock desertification, and coastal erosion, etc.) and have them be delineated within the scope of ecological protection redlines. All provinces, municipalities and autonomous regions have completed the delineation of their respective ERL schemes. After the approval of the ERL by the State Council, the Provincial Governments promulgated the ERL schemes for implementation. The nation-wide ERL covers all the national biodiversity protection ecological functional areas, ecological vulnerable areas and released biodiversity key areas: about 90% of critical ecosystem types and 74% of wildlife are within the scope of ERL and well-protected. Development & productive construction activities outside the core protection areas of the natural protected areas within the ERL, are prohibited, in principle, only the limited, managed, controlled, normalized human activities without destruction to ecological function, under the premise of complying with laws and regulations can be allowable. An ERL regulatory system is being established. In addition to above-mentioned Circular on Strengthening Management of Ecological Protection Redlines (Trial), recently MEE issued Measures for Ecological and Environmental Supervision on ERL (Trial), ERL Indicators System (trial), and Technical Specification for the Supervision of ERL – Protection Effectiveness Assessment (trial) and so on. For reviewing and approval a proposed construction project, NRBs take the lead in checking whether selected site is within the scopes of ERL on not when pre-examine PIUs' application for land use. PIUs should seek opinions of FGBs and EEBs to confirm that the project sites do not occupy any ecological protection redlines before NRBs completing the pre-examination of land use application and report to the corresponding government for approval.
Mechanism of "Three-lines, One-List" zoning management and control	The various areas within the administrative area are divided into environmental units, which are divided into priority protection units ²¹ , key control units ²² and general control units ²³ . Based on the environmental unit, combined with the delineation of the "three lines", from the aspects of spatial layout, pollutant emission management, environmental risk prevention and control, and resource utilization efficiency, the requirements for access, restriction and prohibition are clearly defined, and the ecological environment access list of each environmental control unit is listed to implement the requirements of ecological environment control. During EIA for a construction project, the project developer or EIA consulting unit shall check with the local EEBs on which kind of environment control unit that the proposed project site belongs to, and whether the project components are in the ecological environment access list. After such initial screening, the proposed construction project can be proceeded to the following step of environmental impact assessment and analysis.
Control mechanism of ecological-sensitive area under EIA system	Any kinds of ecological and/or environmental sensitive areas should be avoided in site selection of a construction project following the requirements on ecological protection redlines, territorial spatial planning, and ecological environment zoning. As per requirement of the Technical Guidelines for EIA – for Ecological Impact, when preparing the EIA documents, ecological impacts during construction, operation and decommissioning shall be identified, predicted and assessed properly and ecological protection measures should be proposed in accordance with the mitigation hierarchy of avoidance, reduce, restoration, and compensation to justify ecological

²⁰ Existing natural protected areas include nature reserves, scenic areas, geological parks, forest parks, ocean parks, wetland parks, glacier parks, meadow parks, desert parks, meadow scenic areas, aquatic germplasm resource conservation areas, wild plant habitat conservation areas, nature mini-reserves, and key wild animal habitats, etc.

²¹ Priority protection units: they mainly include ERL, natural protection areas, centralized drinking water source protection areas and other important ecological function areas and ecological environment sensitive areas.

²² Key control units: they mainly include central urban areas and urban planning areas, industrial parks (agglomeration areas) and other areas with high development intensity and relatively concentrated environmental problems.

²³ General control units: within such units, the main goal is to promote the coordination of ecological functions of production, to implement the basic requirements of ecological and environmental protection, strengthen the control of domestic pollution and agricultural non-point source pollution, and promote the continuous improvement of regional ecological and environmental quality and the sustainable development of regional economy and society

	feasibility of the said construction project. When reviewing and approval the EIA documents on a construction project, EEBs will require a written explanatory note from the correspondent NRB at county level for inquiring whether the selected site/alignment of a construction project is against the ERL, usually together with indicative figures showing relationship between the selected site/alignment and the scope of ERL be attached in the annexes. Such written explanatory note will be one of the important bases for decision-making.
Mechanism of negative list for industrial/sectoral access in key ecological functional zones	In 2016, the NDRC issued the <i>Measures for the Preparation of the Negative List for Industrial/Sectoral Access in Key Ecological Functional Zones</i> , to actively promote the establishment and implementation of a negative list mechanism for industrial/sectoral access in key ecological functional zones, and improve the quality of the ecological environment by curbing new prohibited industries and promoting structural adjustment, transformation and upgrading of restricted industries. Or, for investment projects involving ecological environmental protection, a list of a series of access standards and conditions are formulated for the approval of the proposed project.
2. Grasslands Eco-environment Conservation and Restoration	
Mechanism of basic grasslands protection	The State shall control important pasture land, hayfield, artificial grassland used for animal husbandry production grassland returned from farmland, improved grassland as grass seed bases, grassland with special effects on climate regulation, water conservation, soil and water conservation, wind and sand prevention, grassland as a State key protection environment for wild animals and plants, grassland used for scientific research and used as teaching experimental bases, and other grasslands that should be classified as basic grasslands as stipulated by The State Council. All these types of grasslands shall be classified as basic grasslands and shall be subject to strict management, the same strict protection system as basic farmland. The aim is to bring the main body of grassland into the category of basic grassland and implement the same strict protection system as basic farmland
Mechanism of grass-livestock balance	This mechanism is to protect the virtuous cycle of the grassland ecosystem, in a certain area and duration, the total amount of available forage and feed obtained by grassland users or contractors through the grassland should maintain a dynamic balance with the total amount of forage and feed required for raising herbivorous livestock. Its core is grassland grazing, verifying the reasonable capacity of livestock, and effectively curbing the phenomenon of overloading and overgrazing, rationally utilizing grassland, alleviating the contradiction between grass and livestock, and implementing the important system of grassland protection. Sound feeding measures, such as shed-feeding, semi-shed feeding in enclosures, seasonal grazing, zoning rotation grazing and other feeding methods will be encouraged.
Mechanism of prohibition and suspension of grazing	A mechanism of prohibition ²⁴ or suspending ²⁵ grazing shall be implemented for severely degraded grasslands, grassland suffering desertification, salinization, stony desertification, and grasslands in ecologically fragile areas.
(Grassland) ecological compensation mechanism	As a kind of ecological compensation mechanism, it aims to protect the ecological environment of the grassland and promote the sustainable utilization and development of the grassland. The core is to monitor and evaluate grassland ecosystem services, and give corresponding compensation based on this.
Forest (grass) chief system established and promoted in Gansu Province	Gansu Province fully implement the responsibility system of forest (grass) chiefs at the five levels of provinces, municipalities, counties and villages, and the evaluation system of grassland vegetation coverage indicators at the municipal (prefecture) level.

4.4.4.3 Institutional Organization and Performance

88. The above laws and regulations on eco-environmental conservation entrust the following levels of governments and competent authorities with the responsibility to implement and enforce relevant laws, regulations and mechanisms. Their respective responsibilities, procedures and means for performing their duties, the management performance, and their collaboration found by the E&S team for this PforR are analyzed as follows.

89. **Natural Resources Bureaus (NRBs):** are the regulatory authorities that manage and supervise natural resource. NRBs leading the oversight and inspection of the implementation of ERL, together with relevant government authorities, have the responsibility of, particularly regulating territorial and spatial use. Specifically, from the perspective of territorial space use control, NRBs are responsible for pre-review whether

²⁴ Grazing ban: refers to the long-term prohibition of grazing and utilization. It is a measure to prohibit grazing and utilization of grassland for more than one year. The purpose is to relieve the pressure caused by grazing on vegetation, improve the living environment of plants, and promote the growth of plants (recovery)

²⁵ Grazing suspension: refer to a short-term ban on grazing. It is a measure that prohibit grazing of grassland for a certain period of the year. The purpose is to remove the adverse effects of grazing livestock on plants at a special stage of growth and development, so as to promote and ensure the growth and development of plants

the site selection of a construction project is within the scope of applicable construction land and whether it is within the scope of ERL before approval of a land use application. NRBs actively participate in the project developers for site selection, based on the territorial spatial planning and land use control rules, with the "one map" of the territorial spatial planning as the working base map (supported by territorial spatial basic information platform, MNR's natural resources usage regulatory system, and the provincial-wide intelligent approval and supervision system for construction land use). They focus on the protection of cultivated land and permanent basic farmland, the conservation of ERL, and conservation and intensive land use, fill in the site selection suggestion forms, and deliver written opinion of NRBs participating in site selection. Of their administration duties in regulating territorial space use for safeguard the ERL, there are two key points for NRBs to pre-review and approval of construction land use:

- Investment projects subject to land use pre-review or planned site selection, justification of site selection will be required. If the proposed site is to do with ERL, the proposed project will be required to justify that the ERL are unavoidable.
- For the construction projects with proposed sites pre-reviewed, before the formal approval of the land use, a stand-alone justification report on the limited human activities allowed within the scope of ERL or the ERL(s) is/are unavoidable will be required. The municipal or prefectural government will be required to give their ascertaining opinion on limited human activities allowed within the scope of ERL or the ERL(s) or argumentation on the non-avoidance of ERL.

90. **NRBs at county/district level**, there are:

- Territorial planning and land use section or Land consolidation center (2-6 staff), or/and County Planning Service Center (about 8 staff), who are responsible for pre-review and approval of land use application for investment projects and control over the ERL in accordance with *Guiding Opinions on the Overall Delineation and Implementation of the Three Lines of Control in Territorial Space Planning*. Is the proposed site being to do with ERL, the decision has to be made by the NRBs at high levels.
- Forest-grassland-wetland resources section (2-9 staff) or/and grasslands working station, who are the secondary bureaus under NRBs of a county with natural grasslands, equivalent to county-level FGBs (see paragraphs below). They have function of Grasslands Law enforcement, and responsible for managing artificial forage grasslands in the county's jurisdiction.

91. **FGBs**: at the county level, the secondary bureaus under NRBs, are administrative agencies in charge of natural protected areas (including national parks, nature reserves, etc.), wildlife protection and wetland management, forest resources management, grassland management, etc. They are regulatory bodies for forestry and grassland resources management.

- **Natural Protected Areas** are specifically managed and protected by the administrative bodies of the natural protected areas. For example:
 - Zhangye Branch of Gansu Provincial Administration Bureau for Qilian Mountain National Park, is a branch of the Qilian Mountain National Park Administration. It is entrusted to perform the duties of the owners of natural resource assets owned by the whole people in domestic parks, and implement unified supervision and classified management of construction projects. There are 22 protection stations in 19 sections, with nearly 1,500 employees (including long-term village level grass-root intendants); Among them, there are Dahekou Nature protection Station in Minle County and Xishui Nature Protection Station in Sunan County, which are specifically responsible for the use of forest and grass land for construction projects in nature protection areas and the examination and approval of related construction activities, and work hard for ecological restoration and wildlife protection.
 - Anxi Extreme Drought Desert National Nature Reserve Management Center, has 4 sections and 2 conservation stations, which are staffed with professional technical and management personnel, among which the Tangdunhu Provincial Nature Reserve Management Station in Guazhou, Gansu Province has 9 employees.
 - Tangdunhu Provincial Nature Reserve Management Station in Guazhou, Gansu Province, has 9 employees and two grass-root protection stations. It is responsible for improving rules and regulations, improving the management basis, implementing management and protection

measures, intensifying inspection and supervision (inspection frequency is at least once a week), carrying out the overall planning, completing the baseline survey of resources, conducting the survey of invasive alien species, and survey of germplasm resources. The results of their works are reflected by the stable of the ecosystem and its function of the protected zone.

- For the conservation of grassland beyond the protected areas, the Program counties/district have:
 - **Grassland Workstations** (or forest-grassland-wetland protection stations, or forest-grassland technology extension station, or forest-grassland ecology section²⁶)²⁷ at county-level staffed with 6-15 personnel, plus grassland protection stations at town/township level, as well as grass-root grass intendants (hundreds of them). They are responsible for managing and inspecting the grassland (at frequency of about once in every 10 days) , dissemination of policies on grasslands protection and subsidies, announcing orders on grazing bans, implementing grassland eco-compensation subsidy policies and follow up; They carry out (or entrust a third-party qualified service agency to carry out) forest and grass diseases, pests, rodents monitoring, forecasting and prevention work by means of timely monitoring and early warning. They also carry out campaigns on biodiversity conservation. In addition, some counties have forest-fruits technical service center (about 19 staff) to provide routine technical supports for pests monitoring and early warning.

Procedures adopted for degraded grassland restoration and ecological rehabilitation include: during preparation, baselines should be established, annual implementation plan for grassland vegetation restoration should be formulated, perennial grass species suitable for local conditions and conducive to the increase of vegetation coverage and biodiversity should be selected, and attentions were paid to avoid invasive alien species, the dual technical routes of early seedling transplanting and on-site seeding should be adopted, and drip irrigation facilities should be equipped to assist the growth of supplementary grass species. During construction, grassland workstations constructed to a third party through bidding. The boundary of the grassland to be restored should be demarcated for fencing, before ditching, laying drip irrigation pipes, transplanting seedlings and sowing grass, etc. During the sealing period (usually for three years) when grass seedling growth, continuous observation and monitoring (indicators such as grass variety, coverage, height and grass yield) and watering through drip irrigation until the monitored grass indicators reach the technical indicators specified in the design. Then the grassland restored be unsealed and handed over to the local township government for grazing on the basis of grass-livestock balance (see figure 4-4-1 vegetation restoration activities in degraded grassland in Appendix 7 of the report).

For grasslands conservation, one of the most important tasks is to control grassland pests, rodents and fires to maintain the grassland eco-environment and sustainable development of agriculture and animal husbandry. Measures taken include: 1) monitoring and observation facilities are set up in and around the grassland, and village-level grass intendants inspect under the guidance of grassland workstations to do survey, monitoring and forecasting; 2) efforts are made in the prevention and control of grassland pests, rodents and invasive alien species, taking integrated measures physically and biologically to control and use of high-effective low toxic insecticides to control. Sunan county, Guazhou County, Minle County, etc., prepared *Emergency Plans for Pests control in grasslands*, and *Emergency Plans for Exogenous and Emergent Forest-grasslands Pest Disasters* (see figure 4-4-2 Forest grasslands fire prevention emergency plan in Appendix 7 of the report).

- Forest-grasslands Resources Section (about 3 staff) or/and Center for Forestry and Grassland Affairs/Forest and Grasslands Resources Comprehensive Service Center/Landscaping Management Station/Natural Forest Protection Office (6-15 staff), together with the grass-root forest-grassland intendants hired, carry out day-to-day inspections on forest and grasslands, be responsible for forest and wetland, forestation and landscaping, water & soil conservation on grasslands.

²⁶ Forest-grassland ecology section is a comprehensive administration agency under Agriculture, Forestry and Water Bureau of Lanzhou New District where no natural grassland and natural protected areas exist. The district is a quasi-department-level administrative region under the trusteeship of Lanzhou municipality.

²⁷ In pastoral areas with natural grasslands or mixed agricultural and pastoral areas, grassland workstations are set up, while in agricultural areas with no or little natural grasslands, the institutional Settings are forest-grasslands unit.

92. **Ecology & Environment Bureaus (EEBs):** are the governmental authorities implementing the mechanism of the “three-lines, one list” (i.e., ecological conservation redlines, environmental quality bottom lines, resources utilization topline and eco-environment zoning control access list) for eco-environment zoning management and control, and carry out eco-environmental regulatory of any activities within the scope of ERL. EEBs are responsible for the implementation of “three-lines, one list” eco-environment zoning management & control plan, follow-up assessment, updating the plan, and establishment of the “three-lines, one list” application system, coordination with other government line agencies with regard to the “three-lines, one list” for eco-environment zoning management and control mechanism. Since 2028, the Provincial EED, drafted the provincial-wide “*Three Lines, One List*” *Eco-environment Zoning Control Access List Scheme*, which were reviewed by the Provincial Government, who coordinated to connected it with the provincial wide the functional zone strategy, territorial space planning, zoning and use control, energy and resources management, and eco-environmental elements management. The revised Scheme were submitted to MEE. With the final approval of MEE, Gansu Provincial Government in 2020, printed and circulated the Opinions of the People's Government of Gansu Province on the Implementation of the ‘*Three Lines, One List*’ *Eco-environment Zoning Control Access List*. On this base, the Provincial EED defined the Provincial-level *Eco-environment Zoning Control Access List for implementation*; The Municipal EEBs, drafted their respective Municipal-wide *Eco-environment Zoning Control Access List schemes* covering counties within the respective jurisdiction. With the approval of the respective municipal governments, the *Municipal-wide Eco-environment Zoning Control Access List schemes* were printed and circulated to the respective municipalities and counties for implementation. In responding to the requirement of establishing dynamic updated and regular adjustment mechanism stipulated in the MEE’s *Guidance on the Implementation of the ‘Three lines, One List’ Eco-environment Zoning Control (Trial)*, recently, from the provincial to the municipal level in Gansu, are making the 2nd round revision of the respective *Schemes*. In addition, EEBs, together with DRCs, NRBs, FGBs, WRBs, etc., are responsible for implementing the government's work on biodiversity conservation, including the improvement of relevant policies and laws, the formulation of medium and long-term plans and policies, the continuous optimization of the spatial pattern of biodiversity conservation, the protection and restoration of ecosystems, the establishment of a complete biodiversity conservation monitoring system, and the improvement of the biodiversity assessment system, etc. Under each county's EEBs’ branch, the Atmospheric Environment and Natural Ecology Protection Section (2-5 staff) and the Eco-environment Protection Administrative Enforcement Team (8 people) are responsible for the supervision of the ERL in the “three lines and one list”; The Environmental Development and Regulatory Publicity Section (2-5 staff) is responsible for publicity and education activities related to biodiversity conservation in grasslands. Any livestock production and construction activities (such as large-scale farming) in natural protected areas, or in/along the scope of ERL, it is requirement according to the latest EIA Classification Catalogue to prepare EIA report. The said report will be technically reviewed by experts nominated by EEB at or above municipal level. On the basis of technically approval of experts, EEB will give its review opinion on the said report (see Figure 4-4-3 EEB’s review comments on the Special Report on the Impact of Breeding Stock Construction Projects on the Eco-environment of a Natural Protected Area in Appendix 7 of this report).

93. **Agriculture & Rural Affairs Bureaus (ARABs):** are administrative regulatory agencies of agriculture, animal husbandry production, animal health, and forage production. At the county-level, sections/units involved in sustainable grassland management are crop farming section (2-5 staff). They are responsible for developing forage cultivation bases on unused state-owned land in agricultural areas or utilizing farmland to produce increased forage supply by means of (a) “conversion of grains to forage”²⁸ to plant high-yield and high-quality forage by adopting efficient water-saving drip irrigation, sprinkler irrigation technology and green agricultural technology with reduced use of fertilizers and pesticides compared to general crops, (b) the remaining harvested crop straw processed and distributed by enterprises or special cooperatives, (c) lending the harvested straw field to pastoral area for herbal livestock grazing (see Figure 4-4-45 in Appendix 7 of this report), etc. The increased forage supply not only greatly reduces the pressure of insufficient forage supply for livestock production due to reduced grazing load on grasslands and changes of livestock raising methods,

²⁸ Conversion of grains to forage” is an agricultural reform carried out by the MARA, which mainly guides the planting of whole silage corn, in adaptation to local conditions, promotes forage grass in areas suitable for high-quality forage (such as alfalfa, oats, etc.), changes the simple granary into “granary + milk tank + meat warehouse”, and adjusts the dual structure of food and cash crops to the triplex structure of food, cash-crops and feed crops. The focus is to adjust the planting structure, combining of plantation with breeding for circular development, guide the planting of high-quality forage, develop herbivorous animal husbandry, and promote the optimization of agricultural production structure. Financial departments at all levels take the form of awards instead of subsidies as incentives.

but also promotes the sustainable development of agriculture and animal husbandry inside and outside the jurisdiction areas (see Figure 4-4-5, Figure 4-4-6 artificial forage bases development and forage plantation, processing and distribution in Appendix 7 of this report). Other units related to livestock breeding, raising, animal health at county-level are Animal Husbandry Section (1-3 staff), or/and Animal Husbandry and Veterinary Technology Center (14-120 staff) who are responsible for, in addition to animal health, disease prevention and control, leading the construction, provision of relatively centralized standardized livestock facilities relatively concentrated into a scale to form livestock zone to guide the transition of the traditional grazing on natural grasslands to centralized, scaled and standardized shed-feeding livestock production (see Figure 4-4-7 standardized livestock zone in pastoral area in Appendix 7 of this report).

94. Multi-bureaus joint implementation of mechanism of grassland grazing ban, grass- livestock balance: in order to protect grasslands eco-environment and implement the mechanism of grassland grazing bans and grass-livestock balance, firstly, local governments need to implement the said mechanism; secondly, monitoring instrument are required to improve grass-livestock balance; thirdly, it is necessary to promote the livestock production mode from the extensive grazing to the enclosure shed-feeding and semi-shed feeding; fourthly, it is necessary to plant artificial forage through development of forage cultivation bases or “conversion of grains to forage”; fifthly, there is a need to improve the grassland eco-compensation policy, and continue to increase subsidies for farmers and herdsmen. Subsidies and incentives for grassland ecological protection include subsidies for grazing ban and incentives for grass-livestock balance. These involve a joint operation of multiple bureaus. To this end, the Gansu Provincial government formulated the "Measures for the Management of Grass-Livestock Balance in Gansu Province" in 2012, and the Gansu Provincial DOF and DARA formulated the "Implementation Rules of the Measures for the Management of Agricultural Resources and Ecological Protection Subsidy Funds in Gansu Province", etc. Three rounds of grass-livestock balance subsidies have been implemented in pastoral and mixed agricultural and animal husbandry areas (once every five years). The province has formulated the "Implementation Plan of the third round of Grassland Ecological Protection Subsidy and Reward Policy in Gansu Province" (see Figure 4-4-8 indicative map of zone distribution of subsidy and reward policies for grassland ecological protection in Appendix 7 of this report). In Sunan County, a pastoral area, the government issued five supporting management measures such as the "Measures for the Supervision and Management of the Implementation of the Third Round of Grassland Ecological Protection Subsidy and Incentive Policy in Sunan County" Guazhou County and Minle County are similar to Sunan County). These measures provided:

- **The county government** is responsible for organizational leadership on grassland grazing ban, grass-livestock balance within its jurisdiction;
- **Each Town/Township government** is the main body responsible for implementing the mechanism of grassland grazing ban and grass-livestock balance;
- **The village committee** is the main body to implement the mechanism of grassland grazing ban and grass-livestock balance;
- **The county ARAB** is responsible for the registration of livestock households and eligible units that enjoy the policy of grassland grazing ban and grass-livestock balance, carry out policy publicity and policy implementation training, ensure that the policy publicity is in place, and organize the policy implementation together with relevant bureaus;
- **The county FGB** is responsible for the supervision and management of grass-livestock balance in the county, establishing and improving the grassland management and protection network at the county, township and village levels, regularly monitoring the production capacity of different grassland types according to the "Calculation Standards for Reasonable Livestock Carrying Capacity of Natural Grassland" and "Classification Standards of Natural Grassland", verifying the appropriate livestock carrying capacity after comprehensive analysis, and announcing the results by taking town/township as a unit, and submitting the grassland monitoring and evaluation report to the higher level
- **The county FB**, together with the county ARAB, makes payment from the reward funds of grass-livestock balance for grassland ecological protection to herdsmen and eligible units who implemented the mechanism of grassland grazing ban and grass-livestock balance in accordance with the prescribed procedures and standards.

95. Through the respective functions and joint efforts of the above-mentioned relevant bureaus,

remarkable results have been achieved in the protection of the natural ecological environment, especially in the protection and restoration of grasslands. In terms of grassland conservation and restoration in Gansu Province, 100 million mu of grassland implemented mechanism of grassland grazing ban, 141 million mu of grassland implemented mechanism of grass-livestock balance; A total of 105 million mu of grassland rodent pest control has been completed, and 46.9 million mu of degraded grassland has been brought under control; 642,000 mu of cultivated land returned grassland, 2.078 million mu of reclaimed grassland were recovered; 17 rodent and pest monitoring stations, 6 grassland biological disaster monitoring and early warning centers, and 33 grassland fire prevention warehouses (stations) have been built, and 15,000 grass-roots grassland attendants have been employed. The system of grasslands technologic extension, supervision, monitoring and disaster early warning and control has been continuously improved, providing a strong guarantee for the smooth implementation of grasslands ecological conservation and restoration. In terms of biodiversity conservation in Gansu Province, such tools as LED platform, mobile phone SMS, “Dingding group”, slogans, billboards, etc., were used to distribute more than 1000 copies of publicity materials, more than 10 propaganda banners, through regular publicity for strengthening publicity and education. These activities greatly improved the conservation consciousness of farmers and herdsmen and publics. In Sunan Yugur Autonomous County, the model of grazing in the straw fields of the oasis agricultural area (locally called “off-site grazing model”) was promoted during 2015-2020, involving 123,000 sheep units in average (91,000~188,000 sheep unit, 1sheep/mu of straw field) from 506 households of 51 villages, lasting 131 days/year in average, contributing to the annual reduction of 4.42 million sheep units grazing loads on natural grasslands. The “off-site grazing model has played a good role in accelerating the restoration of grassland ecology and transforming the development mode of animal husbandry, comprehensively improving the efficiency of animal manure and straw resource utilization in animal husbandry, and constructing a new pattern of integrated planting and breeding, sustainable development of agriculture-animal husbandry cycle. According to monitoring statistics in 2022, the natural grasslands yield per mu in the county has increased by 20.6% compared to 2010, with an average grass height of 19 cm and an average total coverage of 78.2%. Accounting to the sheep unit, the survival rate of full-grown animals increased by 1%, the wool production increased by 10%, the body weight increased by 8%, the survival rate of lambs increased by 7%, and the birth weight increased by 10%. During the whole grazing period in the oasis, the feeding cost of the average sheep unit increased by ¥ 28 yuan, and the net income of the average sheep unit increased by ¥ 88 yuan after deducting the new cost, with a total increase of ¥ 10.82 million yuan.

4.4.1.4 Brief Summary

96. The typical physical activities of the PforR will be carried out in a wide range of areas within the seven Program counties/district in Gansu Province, which involve ecologically sensitive areas such as grasslands and nature reserves in pastoral or mixed agricultural and animal husbandry areas. In view of the fact that China, Gansu Province and the Program area have established and are improving the corresponding laws and regulations system, and have been and are practicing the relevant mechanisms to promote ecological civilization and the green cycle of agriculture and animal husbandry (such as strict ERL mechanism, grassland grazing ban and grass- livestock balance mechanism, ecological compensation mechanism, etc.), in terms of controlling the ERL and natural habitat, in terms of monitoring the ecological environmental impact of construction projects related to the development of animal husbandry, there is a completed set of laws and regulation and mechanisms with reasonable institutional settings of all levels and relevant management units for natural protected areas staffed with relatively complete personnel, the eco-environment conservation management system is sound and possible adverse impact of the PforR activities on natural habitats and grassland ecosystems can be effectively avoided. The program of “convention grains to forage” can not only promote the adjustment of agricultural structure, optimize land utilization, reduce feeding costs, increase farmers/headmen’s income, but also improve the rural environment, reduce the use of fertilizers and pesticides, reduce the generation of agricultural waste, and help protect and improve the rural ecological environment. The Program environment and social team found that in the Program counties/district in recent years, the development and productive activities related to grassland management and livestock production that would damage the ecological function of the protected area within the ERL have been avoided. Instead, measures and activities that are conducive to the ecological conservation, restoration and management of grasslands within the ERL and the maintenance of indigenous peoples' production and livelihood are taken as permitted by the provisions of the industrial/sectoral access list of key ecological functional areas. Those development and productive activities of livestock production (such as the development and production of large-scale livestock and poultry farm, slaughtering and processing, etc.) are located in agricultural or quasi-urban areas

that have been disturbed by human activities without occupying important natural protected areas or habitats. The typical activities to be supported by the PforR are those that further orient existing activities to areas that are more conducive to the conservation of natural grassland ecology, more climate-smart green cycling, improving livestock production efficiency, and reduction of pollution and GHG emissions. In addition, China has corresponding legal and regulatory management systems and measures for the protection of agricultural biodiversity. The system is in line with the WBG's Environmental, Health and Safety Guidelines for Perennial Crop Production, which covers agro-ecological and environmental protection practices in (GIIP), as well as the Bank's Core Principles for Natural Habitats.

4.4.2 Water and Soil Conservation

97. In the field of soil and water conservation, the prevention of soil erosion caused by construction projects, and the maintenance and construction of ecological environments, China has established a water and soil conservation (WSC) system under the management of WRBs which is in parallel with EIA process for construction projects. The ESSA team, therefore, conducted due diligence to the WSC system.

4.4.2.1 Applicable Legal Framework

Table 4-13 A List of Applicable Laws and Regulations on Water and Soil Conservation

Names of laws, regulations, standards and specifications	Issuing authority/time	Relevant Main Provisions
Water and Soil Conservation Law	SC issued in 1991, amended in 2010 and implemented since 2021	To prevent and control water and soil erosion, it is stipulated that cultivation of crops on steep slopes above 25 degrees is prohibited. Selection of site/alignment of productive construction project shall avoid the focused areas for soil prevention and rehabilitation. If it cannot be avoided, the prevention and control standards shall be upgraded by prioritizing the construction process to minimize surface disturbance and vegetation damage and effectively control loss of water and soil. For any construction project located at mountainous or hilly or sandstorm areas or other areas prone to soil erosion as determined by soil WSC Plan, the responsible PIU should prepare a WSC scheme and submit it to the corresponding WRBs for approval. For any construction project that is subject to WSC scheme preparation, the related WSC works must be designed, constructed, and put into operation simultaneously with the project main parts. Once the construction is completed, the WSC works must be checked for acceptance. The project is not allowed to put into operation if the check is not conducted or accepted.
Law of the PRC on Yellow River Protection	NPC issued in 2022	The local people's governments at or above the county level in the Yellow River Basin shall organize and promote key soil and water conservation projects such as comprehensive management of small river basins, comprehensive improvement of sloping farmland, treatment and protection of the Loess tableland, and construction of suitable vegetation, adopt measures such as protection of loss table land surface, protection of gully heads, gully slopes and gully channels, strengthen control of areas with heavy and coarse sand, and carry out ecological clean watershed construction. PIUs of production and construction projects shall work out and strictly implement approved plans for water and soil conservation pursuant to law.
Agricultural Law	SC issued in 1993, 2 nd amended in 2012	It is stipulated in Article 58 that farmers and agricultural production organizations shall conserve cultivated land, utilize chemical fertilizers, pesticides and agricultural mulch rationally, increase the use of organic fertilizers, adopt advanced technologies, protect and improve soil fertility, and prevent farmland from pollution, damage and fertility declining.
Measures for Construction Projects Water and Soil Conservation Supervision	MRW issued 2022, to be implemented starting from March 2023	PIUs of production and construction projects are the main entities responsible for the prevention and control of soil erosion in production and construction projects. They should strengthen the management of WSC in the whole project life cycle, optimize the construction process and timing, improve the utilization efficiency of soil and water resources, reduce surface disturbance and vegetation damage, take WSC measures in a timely manner, and effectively control soil and water loss that may be caused.
Technical Standards for	MWR, Ministry	

Soil and Water Conservation in Production and Construction Projects GB/T50433-2018	of Housing & Urban and Rural Development jointly issued in 2018	This standard has 5 chapters and 5 appendices, the main content includes general provisions, terminology, basic provisions, soil and water conservation program, soil and water conservation measures design requirements. The technical work of soil and water conservation in production and construction projects should mainly include i) the preparation of soil and water conservation plans, ii) the design of soil and water conservation measures, iii) the supervision on construction of soil and water conservation, iv) soil and water conservation monitoring, and v) the acceptance of soil and water conservation facilities
Standard of Soil Erosion Control for Production and Construction Projects GB/T50434-2018	Ministry of Housing & Urban and Rural Development, State Administration for Market Regulation jointly issued in 2018	The standard levels of soil erosion prevention and control in production and construction projects should be classified into Class I, Class II and Class III. The standard indicators of soil and water loss control should include: percentage of controlled soil erosion area, proportion of soil erosion control, percentage of blocked dregs and soil, percentage of protected topsoil, percentage of recovered forestry and grass, percentage of forestry and grass coverage. Soil and water loss control indicators' values should be divided into eight areas according to soil and water conservation areas: Northeast black soil area, north wind-blown sand area, north soil and rock mountain area, northwest loess Plateau area, south red soil area, southwest purple soil area, southwest Karst area and Qinghai-Tibet Plateau area
Relevant local regulations in Gansu Province and Ministerial regulations and normative documents	/	In addition, there are other national and local guidelines such as the "Water and Soil Conservation - General Guidelines on Planning" (GB/T15772-2008), the "Technical Guidelines on Comprehensive Management of Water and Soil Conservation" (SL534-2013), the "Technical Guidelines on Ecological and Clean Small River Basins Development" (SL534-2013), the "Guidelines on Water and Soil Conservation Monitoring for Construction Projects" (trial, 2015). Gansu Province has also formulated the "Gansu Provincial Regulations on Soil and Water Conservation" (enforced in 2012 and amended in 2023), and the "Gansu Provincial Water Resources Department on the issuance of the "Strengthening of Supervision in the Aftermath of the Event to Regulate the Implementation of the Autonomous Acceptance of Soil and Water Conservation Facilities in Production and Construction Projects" (2017)", which will further prevent and manage soil and water erosion, strengthen the follow-up management system and safeguard the sustainable development of the economy and society.

4.4.2.2 Implementation mechanisms and procedures

Table 4-14 Implementation Mechanism and Procedures for WSC

Implementation Mechanisms/ Procedures	Description
Classified management	In accordance with the "Law on Water and Soil Conservation" and other relevant provisions, in mountainous areas, hilly areas, sandstorms and other areas prone to water and soil erosion, or production and construction projects that may cause water and soil erosion ²⁹ as defined in the water and soil conservation plans approved by the people's governments at or above the county level or the departments authorized by them, the PIUs of production and construction projects shall go through following procedures to compete WSC scheme preparation, submission and approval before the commencement of production and construction projects: (i) a project with land acquisition/occupation over 5 ha, or earthwork or stonework over 50,000 m ³ is subject to preparation of a WSC report; (ii) a project with land acquisition/occupation below 5 ha but over 0.5 ha, or earthwork or stonework below 50,000 m ³ but over 1,000 m ³ is subject to preparation of a WSC form; and (iii) a project with land acquisition/occupation below 0.5 ha, or earthwork or stonework below 1,000 m ³ is exempted from preparation of WSC schemes, but the responsible entity or individual should take measures to prevent soil erosion to meet relevant technical standards.
Approval	For a project that is approved, ratified or filed by SC or relevant departments of SC, the WSC reports should be approved by the Ministry of Water Resources. For a project that is approved, ratified or filed by local governments at the county level or above and the relevant departments, the WSC reports should be approved by the competent department of water administration of the people's government at the same level. For projects in cross-administrative areas, the WSC reports should be approved by the common water conservancy administrative department at the higher level.

²⁹ Production and construction projects that may cause water and soil erosion refer to projects that will disturb land surface, involving excavation and backfilling of earthwork or stonework during production and construction, and which need to go through the procedures of examination, or approval, or record for endorsement pursuant to law

Check for acceptance	For large and medium-sized projects that may cause serious soil erosion, PIUs should monitor the soil erosion caused by construction activities, timely and quantitatively grasp soil erosion and its prevention and control of the situation, evaluate scientifically the effectiveness of prevention and control, and report the monitoring situation to the water conservancy administrative department according to the relevant provisions. WSC supervision should be in accordance with the provisions of the water conservancy project construction supervision and soil and water conservation supervision specifications.
Monitoring	Before the production and construction projects are put into operation and used, the production and construction units shall, in accordance with the standards and requirements stipulated by the Ministry of Water Resources, carry out independent acceptance of soil and water conservation facilities, and the results of the acceptance shall be disclosed to the public and reported to the competent administrative department of water for approval of the soil and water conservation program for the record. The competent water administration department shall issue an acknowledgement of the record.
Supervision and inspection	WRBs are responsible for strengthening the supervision of the whole process of the WSC plans, fully utilizing satellite remote sensing, drones, big data, "Internet & supervision" and other means to supervise and inspect the implementation, monitoring, supervision of the WSC and acceptance of the WSC facilities. The problems found should be handled in accordance with the law. Random sampling of inspection targets at the annual rate of at least 10%, random selection of inspectors shall be implemented and the regulatory information shall be disclosed in a timely manner.

4.4.2.3 Institutional organization and performance

98. **WRBs** at all levels are the competent authorities involved in WSC plans' approval and supervision. The interviews with the example districts/counties reveal that county level WRBs have WSC & water resources sections (3-5 staff) responsible for approving WSC schemes for construction projects that are subject to approval by local governments, and generally completing the application and approval process through the local administrative approval halls. Before the preliminary design documents of regional development and land levelling construction projects are submitted from the county to the municipal level for approval, they should be involved in the pre-approval at the county level for the soil and water conservation measures in the design documents at the county level of pre-approval.

99. It was found during the field visits that Lanzhou New District is a typical administrative area for the development of large-scale modernized farming and animal husbandry cycle ecological farming in agricultural areas through the development of unused state-owned hilly loess gully land for planting artificial forage in the vicinity of new urban areas. In the process of development and construction of unutilized state-owned land, high priority is given to ecology in principle, 50% of the developed land are used as ecological land, 30% as forage cultivation bases, and 20% as public utilities. Before land development, feasibility studies on the land development were prepared and authoritative scientific research institutions were invited to justify repeatedly the approaches to be used with tremendous scientific calculations on reduced wind erosion, soil erosion, ecosystem service value, etc., and mitigation measures were proposed against potential soil erosion. During the development activities that involve large volume of land levelling and earth excavation and backfilling, the WSC scheme has been compiled in strict accordance with the requirements of the Regulations on Preparation and Approval of Water and Soil Conservation Schemes and other laws and regulations, effective measures has been taken to prevent and control water and soil erosion during the construction, the self-check for WSC acceptance has been carried out at the completion of the project and then subject to follow-up management by Agricultural, Forestry and Water Bureau of Lanzhou New District. In recent years, the new land use areas were developed comprehensively from unused land to minimize the occupation of arable land. Through such development approaches over the past 10 year, Lanzhou New District increased its new arable land by 100,000 mu, accounting for 15% of the total area of unused land. There are 21 million square meters of green land, accounting for 35.8% the constructed urban area in Lanzhou New District. At present, Lanzhou New District has accumulated more than 120,000 mu of ecological restoration land, afforestation and greening of more than 200,000 mu, the natural environment and ecological status quo of the region has significantly improved, which has a great positive effect on the prevention and control of soil erosion. These activities have increased the vegetation cover of the region, improved the effectiveness of wind and soil protection in hilly loess gullies and gullies, and improved the originally arid and salinized soil through forage cultivation, effectively increased the organic matter content of the soil. Livestock manure from large and medium scale farms were properly treated sanitarly and returned to the forage cultivation land, contributing to the increased soil carbon sequestration capacity.

4.4.2.4 Brief Summary

100. China and Gansu Province have established an effective WSC management system. The system is operated under a well-staffed operationable mechanism what is qualified to manage the WSC work and help improve ecological environment under the PforR. It is in compliance with WBGs' EHS Guidelines and the core principles of the Bank. Reference can be made to Appendix 8 of this report that provide generic mitigation measures for addressing potential adverse environmental impacts of main activities under the PforR program. These mitigation measures with estimated cost shall be included into the bidding documents for contractors to take specific actions.

4.5 Health and Safety Management System

101. In the process of sustainable grassland management, livestock production and value chain extension may involve following public health and occupational safety and health risks:

- Biological hazard: firstly, the health of the animal itself directly affects the production capacity and efficiency of animal husbandry; The second is the occupational health and safety (OHS) impact to operators working in veterinary service labs, the impacts of biosafety of veterinary service lab, quality of agro-food on health and safety of publics; the third is impact of zoonotic diseases on animals, livestock farming operators, staff engaged in providing service for prevention and control of infectious diseases, communities in the vicinity of the farm & public's health and safety; in addition, livestock farming operators, staff engaged in providing service for prevention and control of animal diseases may be injured or bitten by stinging, poisonous animals or vector mosquitoes;
- Food safety impact: Routine treatment of animals with antibiotics may result in antibiotic-resistant microorganisms in the intestinal tract of treated animals. Potential routes for infection of humans are the consumption of contaminated meat or water or of food contaminated by manure. People living near the farm may also be at risk of infection. Residues of feed additives and contaminants may also be present in meat and dairy products
- Physical hazard: workers engaged such activities of construction, forage cultivation, livestock farming, agro-food processing, veterinary service etc. may exposure to fallen hazards, and lifting heavy weights, or repetitive movements; sharp and moving objects in the workplace; and over-exposure to noise, vibration, and extreme or adverse weather conditions, injured by working in confined spaces. Farmers or workers may be exposed to harmful organic dust that may be generated during forage harvesting, storage and transportation and animal feed processing.
- Chemical hazard: In the process of grassland protection and restoration and cultivation of artificial forage, practitioners are exposed to pesticides, herbicides and other chemical harmful pesticides, and chemical waste of animals' disease prevention and control laboratories.

102. The risk management of animal health & animal infectious diseases of zoonotic diseases and some quality management of animal products that are associated with sustainable grassland management and livestock production and value chain extension are assessed in this section of Chapter 4; The OHS risk management of human infectious diseases of zoonotic diseases and the quality management of some animal products are assessed in Chapter 5.

4.5.1 Animal Health, Agro-foods Quality and Public Health Management System

4.5.1.1 Applicable Legal Framework

103. The National and Gansu Provincial applicable laws and regulations on animal health, agro-food quality and public health and safety are listed in Table 4-9 below.

Table 4-14 A List of Applicable Laws and Regulations on Animal Health, Agro-foods Quality and Public Health

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
1. Animal health and diseases prevention & control		
Law of the PRC on Animal Husbandry	NPC issued in 2005, amended in 2022	<p>The Law stipulates that the ARABs shall be responsible for the supervision and control of animal husbandry; Animal husbandry producers and operators shall fulfill their obligations of animal epidemic prevention and ecological environmental protection according to law, and accept the supervision and inspection carried out by relevant competent departments according to law. One of the conditions that livestock and poultry farms shall meet, are livestock and veterinary technicians available to serve them; Livestock and poultry farms shall establish breeding files that shall include the source, name, object of use, time and amount of inputs such as veterinary drugs; Quarantine, immunization and disinfection; and sanitary treatment of dead and diseased livestock and poultry.</p>
Law of the PRC On Animal Epidemic Prevention	NPC issued in 1997, 2 nd amended in 2021	<p>The Law was enacted to strengthen the management of animal epidemic prevention activities to prevent, control, purify and eliminate animal epidemics, promote the development of the livestock industry, prevent and control zoonotic infectious diseases, and ensure public health safety and human health. The Law is applicable to the epidemic prevention, supervision and administration of animals (domestic livestock and poultry and other animals raised and captured in captivity) in China. The prevention and control of animal epidemic diseases referred to in this Law refers to the prevention, control, diagnosis and treatment, purification and eradication of epidemic diseases and the quarantine of animals and animal products, as well as the sanitary treatment of dead and diseased animals and diseased animal products. The Law stipulates that "the people's governments at or above the county level shall exercise unified leadership over animal epidemic prevention, and ARABs shall be in charge of animal epidemic prevention within their respective administrative areas." According to the degree of harm to the livestock production and human health, animal epidemics as provided for in this Law shall be divided into the following three categories:</p> <ul style="list-style-type: none"> ◇ Category I epidemics refers to foot-and-mouth disease (FMD), African swine fever, highly pathogenic avian influenza (HPAI) and other diseases that pose particularly serious harm to humans and animals, may cause major economic losses and social impacts, and require urgent and strict compulsory prevention and control measures ◇ Class II epidemics refer to babes, brucellosis, hemorrhagic disease of grass carp, etc., that cause serious harm to humans and animals, may cause great economic losses and social impact, and require strict prevention and control measures ◇ Class III epidemics refer to colibacillosis, avian tuberculosis, etc., that are common and frequent, such as colibacillosis, avian tuberculosis and turtle mumps, which cause harm to humans and animals, may cause economic losses and social impact to a certain extent, and need to be promptly prevented and controlled <p>The Law consists of 113 articles under 12 chapters, covering the preventions of animal epidemics, the reporting, notification and publication of animal epidemics, the control of animal epidemics, the quarantine of animals and animal products, the sanitary treatment of dead and diseased animals and diseased animal products, animal diagnosis and treatment, veterinary management, supervision and management, safeguard measures, legal liabilities and others.</p>
Regulation on Emergency Response to Major Animal Epidemics Outbreaks	SC issued in 2005, amended in 2017	<p>The Regulation defines major animal epidemics as "the emergent and rapid spread of animal epidemics with high morbidity or mortality, including HPAI, which pose a serious threat or harm to the production safety of the livestock production, and may cause harm to the health and safety of the public, including particularly serious animal epidemics." The Regulation stipulates that "major animal epidemic emergency response work shall be done in accordance with the principle of localization administration, the implementation of unified government leadership, shared responsibility among governmental bureaus, establishment level by level a responsibility system". These involve ARABs, veterinary, forestry, entry inspection and quarantine authorities and other government departments/bureaus.</p> <p>According to the Regulation, people's governments at or above the county level shall, in accordance with the actual situation of their respective regions, formulate emergency plans for major animal epidemics in their respective administrative regions and report them to the competent governmental veterinary authorities at the higher level for endorsement. The</p>

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
		Regulation consists of general provisions, emergency preparedness, monitoring report and distribution, emergency handling, legal liability and other chapters, and the corresponding provisions are formulated.
Law of the PRC on the prevention and control of infectious diseases	NPC issued in 1989, amended in 2013	The purpose of this Law is to prevent, control and eliminate the occurrence and prevalence of infectious diseases and to protect human health and public health. The Law classified infectious diseases into three categories: A, B and C according to the outbreak, prevalence and harm degree of infectious diseases. People's governments at all levels shall lead the prevention and treatment of infectious diseases; The health commissions (HCs) under the local people's governments at or above the county level shall be responsible for the prevention and treatment of infectious diseases and their supervision and administration within their respective administrative areas. The ARABs, FGBs and other relevant bureaus of the people's governments at or above the county level shall, according to their respective functions and duties, be responsible for the prevention and control of animal diseases related to zoonotic diseases.
Law of the PRC on Biosecurity	NPC issued in 2020	The Law was formulated to safeguard national security, prevent and respond to biosafety risks, safeguard people's lives and health, protect biological resources and the ecological environment, promote the healthy development of biotechnology, promote the building of a community with a shared future, and realize harmonious coexistence between man and nature. The Law includes provisions related to the prevention and control of major emerging infectious diseases, animal and plant epidemics outbreaks, laboratory biosafety management of pathogenic microorganisms, and prevention of alien species invasion and protection of biodiversity. No individual may set up a PML or engage in pathogenic microorganism experiment activities. Chapter 5 of the Law is on biosafety of PMLs. It is stipulated that pathogenic microorganism experiment activities should be carried out in the laboratory reaching corresponding biosafety level. The lower biosafety-levels PMLs shall not engage in the high pathogenic microorganism experiment activities that should be carried out in the higher biosafety level PMLs as stipulated in the National Pathogenic Microorganism Catalogue.
Regulations on Biosafety Management of Pathogenic Microorganism Laboratories	SC issued in 2004, 2nd amended in 2018	The regulation stipulated that "The State exercises classified management over pathogenic microorganisms and graded management over laboratories, and classifies pathogenic microorganisms into four categories according to their infectivity and degree of harm to individuals or groups after infection. The degree of harm from high to low be Category A, Category B, Category C, and Category D respectively. Of them, Category A and Category B are called highly pathogenic microorganisms.
Classification of Pathogenic Microorganisms in Animals	Ministry of Agriculture issued in 2005	As per the Classification of Pathogenic Microorganisms in Animals , Category A pathogenic microorganisms in animals include 10 species, Category B pathogenic microorganisms in animals include 8 species, Category C pathogenic microorganisms in animals include 105 species, and Category D pathogenic microorganisms in animals include remaining species. The State shall adopt unified laboratory biosafety standards. The laboratory shall meet the national standards and requirements; The State shall, according to the biosafety protection level of the laboratory against pathogenic microorganisms and in accordance with the provisions of the national standards for laboratory biosafety, divide the laboratory into BSL-1, BSL-2, BSL-3, and BSL-4. BSL-1 and BSL-2 laboratories shall not engage in experiments operations on highly pathogenic microorganisms.
Veterinary laboratory biosafety management code	Ministry of Agriculture issued in 2003	The code specified the basic principles of biosafety protection in veterinary laboratories, the classification of laboratories, the basic requirements and management of laboratories at all levels, and the standard is the minimum requirement
Law of the PRC on the Prevention and	NPC issued in 1995, 2 nd amended in 2020	The provisions in Chapter VI of the Law - Hazardous Waste are applicable to the prevention and control of environmental pollution by hazardous waste. It includes containers and packaging of hazardous waste, as well as facilities, sites and provisions for

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
Control of Environmental Pollution by Solid Waste		the collection, storage, transportation, utilization and disposal of hazardous waste. The National Hazardous Waste Catalogue classifies medical waste as hazardous waste.
National Hazardous Waste Catalogue	MEE, NDRC, Ministry of Public Security, Ministry of Transport, National HC edition of 2021	The National Medical Waste Catalogue classifies medical waste into infectious waste, injurious waste and pathological waste. Each of the above two Catalogues has a "List of Hazardous Waste or Medical Waste Exemption Management " that lists the specific waste names, exemption links, exemption conditions and exemption contents.
National Medical Waste Catalogue	MEE, National HC edition of 2021	
Medical Waste Management Regulation	SC issued in 2003, amended in 2011	The Regulation is enacted to strengthen the safe management of medical waste, prevent the spread of diseases, protect the environment and human health, and is applicable to the collection, transportation, storage, disposal and supervision and management of medical waste. The Regulation stipulates that the EEBs and HCs of the government at or above the county level shall, in accordance with the provisions of the Regulation, supervise and inspect the medical and health institutions and medical and health treatment units according to the division of responsibilities.
Management Measures for Sanitary Treatment of Dead and diseased Livestock and Poultry and Diseased Livestock and Poultry Products	MARA issued in 2022	The Management Measures is enacted to strengthen the sanitary treatment of dead and diseased livestock and poultry and diseased livestock and poultry products, prevent and control animal diseases, promote the high-quality development of animal husbandry, and protect public health safety and human health. It is suitable for the collection, sanitary treatment and supervision and management of sick dead livestock and poultry and diseased livestock and poultry products in the process of livestock production, slaughtering, operation, isolation and transportation. The Management Measures stipulates that ARABs of the local people's governments at or above the county level shall be responsible for the supervision and administration of the sanitary treatment of dead and diseased livestock & poultry and diseased livestock and poultry products in their respective administrative areas.
Regulation on Pollution Prevention and Control of Scaled Livestock and Poultry Production	SC issued in 2013	The Regulation applies to the prevention and control of pollution from livestock farms and farming zones (excluding grazing and breeding in pastoral areas). The EEBs of the people's government at or above the county level shall be responsible for the unified supervision and administration of the prevention and control of pollution from livestock and poultry production. The Regulation prohibits the construction of livestock farms and farming zones in environmentally sensitive areas such as urban residential areas, cultural, educational and scientific research areas and other populated areas. The construction, reconstruction or expansion of livestock farms and farming zones shall conform to the plans for the prevention and control of pollution from livestock and poultry production, and meet the conditions for animal epidemic prevention. The corresponding pollution control facilities to be built in livestock and poultry farms and farming zones shall include comprehensive utilization and sanitary treatment facilities such as disposal of livestock and poultry carcasses.
Regulation on the Administration of Veterinary Drugs	SC issued in 2004, 3 rd amended in 2020	This is an administrative regulation aimed at strengthening the management & ensuring the quality of veterinary drugs, preventing and controlling animal diseases, promoting the development of the livestock production, and maintaining human health. The Regulation stipulates that "the Animal Husbandry and Veterinary Medicine Bureaus (AHVMBs) of the local people's government at or above the county level shall be responsible for the supervision and administration of veterinary drugs within its administrative area," and make specific provisions on the research, production, marketing, import and export, use, supervision and administration, and legal responsibilities of veterinary drugs.
Measures for the Administration of Animal	MARA issued in 2002	The two Measures aim to standardize the work of compulsory animal immunization, effectively control major animal epidemics, standardize the production and operation

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
<i>Immunization Labeling</i>		behaviors of animal husbandry, strengthen the management of livestock and poultry labels and breeding files, establish a traceability system for livestock and poultry products, effectively prevent and control major animal epidemics, and ensure the quality and safety of livestock and poultry products. Among the others, it is stipulated that "the identification of livestock and poultry shall implement one animal and one mark, and the code shall be unique", "livestock and poultry farms shall establish breeding files", and "AHVMBs at the county level shall establish livestock and poultry epidemic prevention archives".
<i>Measures for the Management of livestock and Poultry Marking and breeding archives</i>	MARA issued in 2006	
<i>Measures for the Administration of Animal Quarantine</i>	MARA issued in 2022	The Measures is formulated for the purpose of strengthening the management of animal quarantine activities, preventing, controlling, purifying and eliminating animal epidemics, preventing and controlling zoonotic infectious diseases, and ensuring public health safety and human health, in accordance with the Law of the PRC on Animal Epidemic Prevention . There are specific provisions on quarantine declaration, origin quarantine, slaughter quarantine, animal quarantine into areas without provisions for animal epidemic, official veterinarian, animal quarantine certificate mark management, supervision and management, legal responsibility etc.
<i>Measures for Reviewing Conditions for Animal Epidemic Prevention</i>	MARA issued in 2010, amended in 2022	The Measures aimed at standardizing the review of animal epidemic prevention conditions, effectively preventing, controlling, purifying and eliminating animal epidemics, preventing and controlling zoonotic infectious diseases, and ensuring public health safety and human health. It is stipulated that: livestock farms, animal isolation places, animal slaughtering and processing places and sanitary treatment places of animals and animal products shall meet the conditions for animal epidemic prevention as provided for in the Measures, and obtain the certificate of animal epidemic prevention conditions. Markets dealing in livestock and animal products shall meet the conditions for animal epidemic prevention as provided for in the Measures . The Measures also stipulates that "AHVMBs of the local people's governments at or above the county level shall be responsible for the examination, supervision and administration of animal epidemic prevention conditions within their respective administrative areas."
<i>Rules for the Registration of Fine Breeding Stock</i>	MARA issued in 2006	The Rules is formulated to cultivate fine breeding stock, improve the genetic quality of breeding stock, and recommend fine breeding stock to the society.
2. Agro-food Quality Safety Management		
<i>Law of the PRC on Agro-food Quality and Safety</i>	NPC issued in 2018, amended in 2022	The Law is enacted to ensure the quality and safety ³⁰ of agro-food ³¹ , safeguard public health, and promote agricultural and rural economic development. The Law has a total of 81 articles, covering six chapters, i.e., general provisions, agricultural product quality and safety risk management and standard formulation, agricultural product origin, agricultural product production, agricultural product sales, supervision and management.
<i>Feed and Feed Additives Regulation</i>	SC issued in 1999, 4 th amended in 2017	The Regulation is formulated to strengthen the management of feed and feed additives, improve the quality of feed and feed additives, ensure the safety and quality of animal products, and maintain public health. The Regulation stipulates the supervision of feed and feed additives in the agricultural and rural sectors. Specific provisions have been made on the registration, production, operation and use, and legal liability of feed and feed additives.
<i>Measures for the Administration of Pollution-free Agro-food</i>	General Administration of Quality Supervision, Inspection and Quarantine, Ministry of Agriculture issued in 2002, amended	The Administrative Measures aims to strengthen the management of pollution-free agro-food, safeguard the rights and interests of consumers, improve the quality of agro-food, protect the agricultural eco-environment, and promote sustainable agricultural development. The Administrative Measures defined that "pollution-free agro-food refers to the environment of origin, production process and product quality meet the requirements of the relevant standards and norms of the State, through the certification of the certification of raw or pre-processed edible agricultural products permitted in the certificate to be marked as

³⁰ Agro-food quality safety means that the quality of agricultural products meets the quality and safety standards of agricultural products and meets the requirements for protecting human health and safety

³¹ Agro-food refers to primary products derived from farming, forestry, animal husbandry and fishery, that is, plants, animals, microorganisms and their products obtained in agricultural activities

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
	by MARA IN 2007	pollution-free agro-food. The Administrative Measures have made specific provisions on the conditions of certification on origin and production management, place of origin.
3. Animal welfare		
Laws and Regulations with provisions on animal welfare		<ul style="list-style-type: none"> ● Wildlife Protection Law of the PRC : Acts endangering wildlife such as illegal killing, trafficking, consumption and abuse shall be prohibited, and violators shall be punished and accountability be held ● Animal Husbandry Law of the PRC stipulated: The competent MARA under The State Council shall guide animal husbandry producers and operators to improve the conditions and environment for breeding, farming, feeding, transportation and slaughtering of livestock and poultry; Livestock producers are required to comply with livestock technical specifications, ensure the health and safety of livestock and poultry, and improve the quality and safety of livestock products; The Law prohibits ill-treatment, abandonment, abuse and other acts that endanger livestock and poultry, and imposes penalties and accountability on violators ● Law of the PRC on Animal Epidemic Prevention: Animal breeders and veterinary practitioners are required to abide by the regulations on animal epidemic prevention, report and handle animal outbreaks in a timely manner, and prevent the spread and spread of the disease. ● Veterinary Medicine Law of PRC: It is required that veterinary practitioners to have appropriate qualifications and capabilities, abide by professional ethics and norms, and provide reasonable and effective diagnosis and treatment services for animals ● The Law on the Quality and Safety of Agricultural Products and the relevant sectoral standards for ensuring quality and safety of agro-food products also imply that behaviors of livestock stockman and slaughterhouse employees are regulated not to mistreat or frighten animals or feed prohibited feed additives and antibiotics, and are subject to the strict supervision and management of the local AHVMBs and MSBs.
Relevant standards/codes	<p>National Standard</p> <p>Sectoral Standards</p> <p>Group/Association Standards</p>	<p>Welfare Criteria for Animals to Be Slaughtered (BG/T42304-2023) specified the animal welfare requirements of the slaughtering process of pigs, cattle, sheep, chickens and ducks, and applies to the animal welfare management of the slaughtering process of pigs, cattle, sheep, chickens and ducks</p> <p>Welfare on Killing Animals for Disease control Purpose (GB/T42071-2022) The standard regulates the options, personnel requirements, options selection, safety measures and supervision of livestock and poultry culling under different factors. At the same time, in order to facilitate the operation and implementation, the specific requirements for the culling methods, culling equipment, culling preparation, and post-culling treatment of pigs, poultry, cattle and sheep are detailed, so as to minimize the suffering of the above-mentioned animals when they are culled</p> <ul style="list-style-type: none"> ● SN/T 3774-2014 Animal Welfare Code for Feeding, Transportation and Slaughtering of Cattle ● SN/T4102-2015 Animal Welfare Code for Feeding, Transportation and Slaughtering of Horse ● SN/T5485-2022 Animal Welfare Code for Feeding, Transportation and Slaughtering of Donkey ● T/CAS 235-2014 Farm Animal Welfare Requirement for Pigs ● T/CAI 001-2019 Farm Animal Welfare Requirement for waterfowl ● T/CAS 269-2017 Farm Animal Welfare Requirement for hens ● T/CAI 004-2021 Farm Animal Welfare Requirement for Dairy Cattle ● T/CAS 238-2014 Farm Animal Welfare Requirement for Beef Cattle ● T/CAS 267-2017 Farm Animal Welfare Requirement for Meet-type Chicken ● T/CAI 003-2019 Farm Animal Welfare Requirement for Cashmere Goat ● T/CAS 242-2015 Farm Animal Welfare Requirement for Sheep raised for Mutton

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
		<ul style="list-style-type: none"> T/ZJMEAT 002-2022 Code of Practice for Animal Welfare During Transport and Slaughtering of Live Pigs
4. Relevant Gansu Provincial Regulations and Administrative Measures		
Regulation of Gansu Province on Animal Epidemic Prevention	GPPC issued in 2013, amended in 2021	<p>The Regulation is formulated in accordance with the Law of the PRC on Animal Epidemic Prevention and the Emergency Regulations on Major Animal Epidemics of The State Council, and in combination with the actual conditions of Gansu Province, aiming to strengthen the management of animal epidemic prevention activities, prevent, control, purify and eliminate animal epidemics, promote the development of livestock production, prevent and control zoonotic infectious diseases, and ensure public health safety and human health.</p> <p>The Regulations stipulates that "Units and individuals engaged in livestock production, feeding, slaughtering, operation, isolation, transportation, as well as the production, operation, processing, storage and other activities of animal products shall, in accordance with the provisions of the State, shall work well on immunization, disinfection, testing, isolation, purification, elimination, sanitary treatment and other animal epidemic prevention tasks, and bear the relevant responsibilities for animal epidemic prevention."</p>
Measures for the Administration of Livestock Slaughtering in Gansu Province	Gansu Provincial Government issued in 2005	<p>The Administrative Measures is formulated in accordance with the Regulations on the Administration of Pig Slaughter of The State Council, applicable to livestock (pigs, cattle, and sheep) and their unprocessed carcasses, meat, fat, organs, blood, bones, heads, hooves, skins, etc., after slaughter in Gansu Province. The Administrative Measures stipulates that "slaughtering livestock must be carried out in approved designated slaughterhouses." No unit or individual may slaughter livestock without being designated by the people's governments of municipalities, prefectures, counties, districts. The conditions for setting up the designated slaughterhouse of domestic animals are specified. Meat production and processing enterprises that need to slaughter domestic animals by themselves shall apply for the qualification of designated slaughter in accordance with the conditions and procedures stipulated in the Administrative Measures. The Administrative Measures also make specific provisions on quality control such as pre-slaughter and post-slaughter quarantine, meat quality inspection, freezing and refrigeration storage, transportation and marketing.</p>
Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management	Gansu Provincial Government issued in 2007	<p>The Regulation & Measures put forward specific requirements for epidemic prevention, waste sanitary treatment facilities and on the site selection, layout, introduction of breeding stock, animal immunization, required veterinary drugs, and sanitary treatment of dead and diseased livestock, as well as the requirements on the rules and regulation to be established by enterprises or rural collectives or households who runs the livestock farms or farming zones.</p> <p>The Regulation & Measures stipulates that the built and new livestock and poultry farms and farming zones in the Province shall carry out registration for endorsement and the county level AHVMBs are responsible for the registration. The Regulation & Measures also make specific provisions on the use of veterinary drugs and feed additives. For example, "The use of homologous animal source feed for ruminants such as cattle and sheep is prohibited."</p>
Measures for Supervision & Examination of the Prevention and Control of Major Animal Epidemics in Gansu Province	Gansu Provincial AHVMB issued in 2023	<p>The Measures clarify the division of responsibilities, content and methods of supervision, frequency and coverage of supervision & examination procedures and results of supervision in major animal disease prevention and control from provincial to municipal and county veterinary authorities (including animal husbandry and veterinary bureaus/sections/units and animal disease prevention and control agencies and animal health supervision agencies). The purpose is to standardize the behavior of animal epidemic prevention supervision, improve administrative efficiency and work efficiency, promote the implementation of the responsibility and measures for animal epidemic prevention of major animal diseases in the province, and promote the high-quality development of animal husbandry.</p>
Plan for Prevention and Control of	Gansu Provincial AHVMB issued in	In this Plan , the main zoonotic diseases related to herbivorous livestock that need to be controlled and prevented are classified as:

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
Zoonotic Diseases among Animals in Gansu Province (2023-2030)	Feb. 2023	<ul style="list-style-type: none"> ● Focused prevention: brucellosis, cattle disease, combined cattle disease, anthrax, echinococcosis, malleosis of horse ● Routine prevention: melioidosis ● External precautions: bovine spongy encephalopathy
Implementation Plan on Further Strengthening the construction of Two "Three Goods and One standard" to build a well-known brand of "Gansu-Flavor" agricultural products (2019-2023)	Gansu Provincial Government issued in 2019	<p>One of the objectives of the Implementation Plan is to reduce pollution and carbon emission in animal husbandry and improve the quality of agro-foods with characteristics of Gansu Province.</p> <p>The so called "Two Three Goods and One standard" refer to agro-foods produced to be "pollution-free agricultural products, green food, organic agricultural products, geographical indication agricultural products" deemed as the "good variety, good quality, good brands meeting standards".</p>
Local emergency plans for major animal epidemic prevention		In accordance with the relevant laws and regulations on animal epidemic prevention, special emergency plans prepared by ARABs at provincial, municipal and county levels, issued by the Emergency plans issued by governments at the same level. For example, Gansu Province Emergency Plan for Major Animal Epidemic Outbreak, Gansu Province Emergency Plan for Major Animal Epidemics 2022, and each county's Emergency Plan for Major Animal Epidemics 2022, etc.
5. Sectoral Standards and Technical Codes		
Animal health and epidemic prevention & control		Technical Specification for Sanitary treatment of Dead and Diseased Animals, Technical Specification for Prevention and Control of FMD, Technical Specification for Anthrax Control, Technical Specification for Prevention and Treatment of Sheep Pox, Technical Specification for Bovine Tuberculosis Control, Brucellosis Control Techniques, Technical Specification for the Prevention and Treatment of HPAI, Generals for Biosafety in Veterinary Laboratories-NY/T1948-2010, Quality and Technical Requirements for Veterinary Laboratories, etc.
Sectoral standards for safeguard healthy and quality of agro-foods	MARA	The " Feed raw materials Catalogue " was issued by the Ministry of Agriculture on June 1, 2012, and implemented on January 1, 2012, and then revised by the Ministry of Agriculture and Rural Affairs several times, and the current revision announcement is up to July 2023; Catalog of Feed Additives (2013); Feed Quality and Safety Management Code (2014); Code for Safe Use of Feed Additives (2018); List of allowable feed additive Varieties; Code for the Use of Feed Drug Additives; Guidelines for the Management of Pollution-free Feed for Pigs (NY/T5033-2001); Guidelines for the Breeding and Management of pollution-free Meat Sheep (NY/T5151-2002); Guidelines for the Feeding and Management of pollution-free Beef Cattle (NY/T5033-2001) Guidelines for the feeding and Management of pollution-free Dairy Cattle (NY/T5049-2001); And so on
Laboratory biosafety	National standards/codes	General Requirements for Laboratory Biosafety (GB19489-2008), Technical Code for Biosafety Laboratory Construction (GB50346-2011)
	Sectoral standards/codes	General Biosafety Requirements for Veterinary Laboratories (NY/T 1948-2010), Quality and Technical Requirements for Veterinary Laboratories (NY/T 2961-2016) Technical Specification for Collection, Preservation and Transportation of Veterinary Diagnostic Samples (NY/T541-2016)

4.4.1.2 Implementation Mechanisms and Procedures

104. In order to implement the above-mentioned laws and regulations on animal health, disease prevention and control, and the quality and safety of livestock products, China has established and is gradually improving

the relevant implementation mechanisms, which are summarized in Table 4-10 below.

Table 4-15 Implementation mechanism for animal health and disease prevention and control, and quality and safety management of livestock products

Implementation Mechanisms/ Procedures	Description
1. Animal Health and Epidemic Prevention & Control	
Mechanism of animal disease risk assessment	<p>The competent departments of ARABs shall, in accordance with the animal epidemic situation at home and abroad and the need for the protection of livestock production and human health, conduct risk assessment of animal epidemics in a timely manner together with the health and other relevant departments under The State Council, and formulate and publish measures and technical specifications for the prevention, control, purification and elimination of animal epidemics. Compulsory immunization shall be carried out against animal epidemics that seriously endanger livestock production and human health.</p> <p>In Gansu Province, the provincial DARA has established a risk assessment and early warning system for animal epidemics, carried out the provincial-wide risk assessment of animal epidemics in conjunction with the relevant departments and bureaus of health at the same level, issued early warnings of animal epidemics in a timely manner according to the prediction of the occurrence and epidemic trend of animal epidemics. The early warnings specified disease, zones, stages for prevention & control, purification, elimination of animal epidemics.</p>
Mechanism of animal epidemics monitoring and early warning	<p>The State implements an animal epidemic monitoring and early warning mechanism. People's governments at or above the county level shall establish and improve animal epidemic disease monitoring networks and strengthen animal epidemic disease monitoring. The ARABs at various levels shall formulate animal epidemic disease monitoring plans for their respective administrative areas to forecast the occurrence and epidemic trend of animal epidemics, and issue timely early warnings of animal epidemics. After receiving early warnings of animal epidemics, local people's governments at various levels shall take timely preventive and control measures;</p>
Mechanism of examine animal epidemic prevention conditions	<p>The State implements animal epidemic prevention condition examine mechanism. Entities who plan to establish animal farms and isolation sites, animal slaughtering and processing sites and sanitary treatment sites for animals and animal products shall submit to ARABs of the local people's government at or above the county level, attached with relevant materials. The ARABs accepting applications shall examine them in accordance with this Law and the Administrative Licensing Law of the PRC. A certificate of the conditions for animal epidemic prevention shall be issued to those who pass the examination; If the applicant is not qualified, it shall notify the applicant and explain the reasons.</p>
Compulsory immunization mechanism	<p>The State implements compulsory immunization against animal epidemics that seriously endanger livestock production and human health. Units and individuals that raise animals shall fulfill the obligation of compulsory immunization against animal epidemics, vaccinate animals against animal epidemics in accordance with the compulsory immunization plan and technical norms, and establish immunization files and label livestock and poultry in accordance with the relevant provisions of the State to ensure traceability. Vaccines used for preventive vaccination shall conform to the quality standards of the State.</p> <p>In Gansu, the provincial DARA, together with relevant departments, formulated the provincial compulsory immunization plan for animal diseases in accordance with the national compulsory immunization plan, and submitted it to the MARA for the record with the approval of the provincial government. The municipal and county-level ARABs or AHVMBs shall, in accordance with the provincial compulsory immunization plan against animal epidemics, organize the implementation of compulsory immunization against animal epidemics in their respective administrative areas.</p>
Animal epidemic notification mechanism	<p>The State practices an animal epidemic notification mechanism. The ARABs notify the occurrence and handling of major animal epidemics.</p>
Inter-department cooperation mechanism	<p>First, establish a cooperation mechanism for the prevention and treatment of zoonotic diseases covering the national, provincial, municipal and county levels of health, agriculture, rural areas, wildlife protection and other competent departments. Second, establish a cooperation mechanism at the national level between MARA and the General Administration of Customs and other departments to prevent the import of animal diseases from overseas. In particular, when the epidemic of zoonotic infectious diseases occurs, the ARABs, HCs, FGBs, AHVMBs of the people's governments at or above the county level shall strengthen information communication and establish a cooperative mechanism for the prevention and treatment of zoonotic infectious diseases. In the event of an animal epidemic, air, railway, road and waterway transport enterprises shall give priority to organizing the transport of epidemic prevention personnel and materials; The local people's government at or above the county level shall, in accordance with the emergency plan for major animal epidemics at the higher level and the actual situation of the region, formulate the emergency plan for major animal epidemics in its administrative region, report it to the ARABs of the people's government at the higher level for the record, and send a copy to</p>

	the emergency management department of the people's government at the higher level. The ARABs of the local people's governments at or above the county level shall, in accordance with the different types of animal epidemics, their epidemic characteristics and the degree of harm, formulate implementation plans respectively
Quarantine of animals and animal products	Animal health supervision agencies shall quarantine animals and animal products in accordance with the relevant law and regulations and MARA's provisions. Official veterinarians of animal health supervision institutions shall conduct quarantine of animals and animal products. In addition, there are corresponding administrative measures and regulations on quarantine declaration, official quarantine, issuance of quarantine certificates, quarantine signs and other aspects for quarantine animals from live, slaughter, product processing, transportation and distribution, and marketing.
Official veterinarian appointment mechanism	Veterinarian, that is, the official veterinarian of the animal health regulatory institution, shall have the conditions prescribed by the MARA, be confirmed by the ARABs of the governments of provinces, autonomous regions and municipalities directly under the Central government in accordance with the procedures, and be appointed by ARABs of the governments at or above the county level. The State implements a qualification examination system for practicing veterinarians. Rural veterinarians who have professional education or meet the conditions and pass the qualification examination for practicing veterinarians shall be issued a qualification certificate for practicing veterinarians by ARABs of the people's government of a province, autonomous region or municipality directly under the Central Government.
Mechanism of sites certificate and institution license	Livestock farms, farming zones, animal isolation sites, animal slaughtering and processing sites and sanitary treatment sites of animals and animal products shall meet the conditions for animal epidemic prevention as provided for in relevant laws & regulations, and obtain the certificate of meeting animal epidemic prevention conditions. Institutions and units engaged in animal diagnosis and treatment, veterinary drug production, veterinary drug marketing, and the establishment of livestock and poultry farms/farming zones need to apply for, and shall be reviewed by the competent authorities to comply with the conditions prescribed by laws and regulations, and shall be issued with the corresponding production/business license after being deemed qualified.
Mechanism of designated site for slaughtering pigs, cattle and sheep	With reference to the national Conditions for the Management of Pig Slaughter , combined with the actual situation of Gansu, an animal husbandry province, the Measures for the Management of Livestock Slaughter in Gansu Province stipulates that "within the administrative area of the province, designated slaughtering and centralized quarantine of pigs, cattle and sheep shall be implemented, and designated slaughtering and centralized quarantine of poultry shall be gradually implemented. No unit or individual may engage in slaughtering activities outside designated places, except for individuals in rural areas who slaughter and eat themselves."
Centralized and harmless disposal of medical waste	The State promotes the centralized and harmless disposal of medical waste. Governments at or above the county level shall be responsible for organizing the construction of centralized medical waste disposal facilities Medical and health institutions and centralized disposal units of medical waste shall register medical waste and implement hazardous waste transferring unified bill mechanism.
Implementation the target management responsibility mechanism for animal epidemic prevention in Gansu	Gansu Province has formulated the Responsibility System for the Prevention and Control of Major Animal Epidemics and the Measures for Accountability , clarifying the responsibility in places within jurisdiction of county, and the main responsibilities of regulatory agencies, principle responsibility of management counterpart.
Mechanism of linking insurance with sanitary treatment of dead and diseased livestock	Through government subsidies, livestock farmers/cooperatives are encouraged to actively participate in the sanitary treatment of dead and diseased livestock, reduce environmental pollution and animal disease prevention and control risks, protect the economic interests of farmers, and safeguard the ecological environment and public health safety. It involves the linkage/interaction of four departments: AHVMBs are responsible for coordinating and organizing the sanitary treatment of dead and diseased animals, formulating relevant subsidy policies and standards, and carrying out information release and publicity work; professional insurance companies are responsible for providing insurance products for the sanitary treatment of dead and diseased animals to protect the economic interests of farmers; The Centre for the Safe Disposal of Dead and diseased Animals is responsible for the transport and safe disposal of dead and diseased animals; The supervision department is responsible for supervising and inspecting the implementation of the sanitary treatment of dead and diseased animals.
Classified management on PML with unified biosafety	The State classify PMLs (including veterinary laboratories) into 4 categories according to the infectivity of pathogenic microorganisms and the degree of harm to individuals or groups after infection; The State divide PMLs into BSL-1, BSL-2, BSL-3 and BSL-3 based on according to the biosafety protection level of the laboratory against pathogenic microorganisms, and in accordance with the provisions of the national standards for

standard:	<p>laboratory biosafety. BSL-1 & BSL-2 labs shall not engage in experiments operations on highly pathogenic microorganisms.</p> <p>Requirement of biosafety level of veterinary labs:</p> <p>Animal Lab Biosafety Level-1 (ABSL-1): the biosafety level that can safely carry out work in animals infected with clearly defined pathogenic microorganisms that are not found to definitely cause disease in healthy adults, and that pose minimal risk to laboratory workers, animals, and the environment</p> <p>ABSL-2: the biosafety level that can safely carry out work in animals infected with pathogenic microorganisms that pose minimal risk to laboratory workers, animals, and the environment. And these pathogenic microorganisms cause harm through exposure to the digestive tract and skin and mucous membranes.</p> <p>ABSL-3: The biosafety level at which it is safe to work in animals, both domestic and foreign, that may be infected by pathogenic microorganisms that cause severe or fatal diseases through respiratory infections</p> <p>ABSL-4: The biosafety level that can safely engage in animals that may be infected by pathogenic microorganisms, domestically and internationally, and the pathogenic microorganisms can transmitted through aerosols, laboratory infection is highly dangerous, seriously harmful to human and animal life and the environment without specific prevention and treatment measures</p> <p>A list of floor areas and biosafety levels for veterinary laboratories at different administrative level</p> <table border="1"> <thead> <tr> <th>Administrative level</th> <th>County</th> <th>municipality</th> <th>provincial</th> <th>Regional</th> <th>national</th> </tr> </thead> <tbody> <tr> <td>Total floor area (no less than m²)</td> <td>200</td> <td>300</td> <td>1500</td> <td>2000</td> <td></td> </tr> <tr> <td>Biosafety level (the highest)</td> <td>BSL-1</td> <td>BSL-2</td> <td>BSL-2</td> <td>BSL-3</td> <td>BSL-4</td> </tr> </tbody> </table>	Administrative level	County	municipality	provincial	Regional	national	Total floor area (no less than m ²)	200	300	1500	2000		Biosafety level (the highest)	BSL-1	BSL-2	BSL-2	BSL-3	BSL-4
Administrative level	County	municipality	provincial	Regional	national														
Total floor area (no less than m ²)	200	300	1500	2000															
Biosafety level (the highest)	BSL-1	BSL-2	BSL-2	BSL-3	BSL-4														
Veterinary laboratory examination system:	<p>The State implements an examination system for veterinary laboratories. Only veterinary laboratories that have passed the examination and obtained the examination certificate may undertake the tasks of diagnosis, monitoring and testing of animal epidemics. If the veterinary laboratory fails to pass the assessment and has not obtained the assessment certificate, the task of diagnosis, monitoring and testing of animal epidemics in the administrative area shall be entrusted to the veterinary laboratory that has obtained the assessment certificate of the veterinary laboratory.</p>																		
2. Agro-foods Quality Safety Management																			
Agro-food quality and safety monitoring mechanism	<p>Provincial ARAD shall formulate the implementation plan for monitoring the quality and safety risks of agricultural products in their respective administrative areas, and report it to the competent department of agriculture and rural Affairs under The State Council for the record. The competent departments of agriculture and rural affairs under the local people's governments at or above the county level shall be responsible for organizing the implementation of monitoring the quality and safety risks of agricultural products in their respective administrative areas</p> <p>Provincial DADA shall formulate the implementation plan for monitoring the quality and safety risks of agro-food, and report it to MARA for record. The ARABs under the local people's governments at or above the county level shall be responsible for organizing the implementation of monitoring the quality and safety risks of agro-foods in their respective administrative areas.</p>																		
Agro-food quality and safety risk assessment mechanism	<p>MARA shall set up an expert committee on agro-food quality and safety risk assessment to conduct risk analysis and assessment of potential hazards that may affect the quality and safety of agro-food, and timely report the results of monitoring and risk assessment of agro-food quality and safety risk to the market supervision and administration, health and other departments under The State Council, and ARABs of the people's governments of provinces, autonomous regions and municipalities.</p>																		
Establishment and improvement of a system for agro-food quality and safety standards	<p>The State establishes and improves a system of quality and safety standards for agro-food to ensure their strict implementation. The quality and safety standards of agro-food are mandatory standards.</p>																		
Mechanism of origin monitoring on agro-food	<p>ARABs at or above the county level shall, together with the EEBs and NRBs at the same level, formulate monitoring plans for the production areas of ago-food, and strengthen the investigation, monitoring and evaluation of the safety of agricultural products. It mainly involves crop and soil pollution control.</p>																		
Standard system for feed and feed additives	<p>The State regulates feeding management and ensures the quality and safety of livestock products by establishing a standard system for feed and feed additives directly related to livestock production. According to the provisions of the Regulation on the Administration of Feed and Feed Additives on "prohibiting the addition of animal-derived ingredients other than milk and dairy products in ruminant feed", the standard system</p>																		

	for feed and feed additives related to herbivorous animals are established to avoid the production of special hazards (SRM) during cattle and sheep feeding: tissues that transmit vectors such as bovine spongiform encephalopathy (BSE), hereditary spongiform encephalopathy (TSE) or Scrapie in cattle after processing into animal feed. People consuming animal products infected with bovine spongiform encephalopathy may suffer from variant Creutzfeldt-Jakob disease, that is, mad cow disease, etc., The said system helped to avoid cattle and sheep farming falling into the "sick cow disease" abyss.
Mechanism of commitment certificate compliance with standard	Commitment certificated compliance with standard is certificate of commitment issued by edible agro-food producers, buyers voluntarily that the quality of their agro-food produced or sold are safety in accordance with national laws and regulations, and mandatory standards for agro-food quality and safety and in strict implementation of the existing agro-food quality and safety control requirement. Requirements for pledging commitment to meet standard certificate include: agro-food production enterprises and farmers' specialized cooperatives shall implement the provisions of laws and regulations and the relevant mandatory standards of the State, ensure that the agro-food they sell meet the quality and safety standards of agro-food, and issue a certificate of compliance according to the quality and safety control and testing results, promising not to use prohibited pesticides, veterinary drugs and other compounds, and the residues of conventional pesticides and veterinary drugs used will not exceed the standard, etc. The commitment certificate is a promise identifier, traceability certificate, reputation proof and a powerful tool for supervision.

4.5.1.3 Institutional Organization and Performance

105. The above laws and regulations related to animal health and epidemic prevention and control, and the quality and safety of livestock products empowered the following levels of governments and competent departments/bureaus with the responsibility to implement and enforce the relevant laws, regulations and mechanisms. Their respective responsibilities, procedures and means for performing their duties, and the management performance found by environmental and social group of the PforR are analyzed as follows.

106. **ARABs:** are the most important government supervision authorities for animal health and epidemics prevention and control. They play the most important role in animal health and epidemic prevention & control, ensuring the quality of livestock products and public safety, especially in all important links/points before the slaughter and finishing processing of livestock. There are AHVMBs or workstations (subordinated to ARAB) at provincial, municipal and county levels. At the county level, there are AHVMBs/workstation (1~14 staff), or/and Law enforcement Supervision and Quarantine section (4~16 staff), technical service agencies providing laboratory services for animal epidemic prevention & control and for agro-food quality tests (e.g., county animal disease prevention & control center, or/and agricultural (animal husbandry) technical service center, or/and animal health surveillance office (3~19 staff) , plus livestock stations at town/township level, and grass-root animal quarantine intendants (2~4 staff/village in average) at village level. Among them, the AHVMB of the second bureau of Jingchuan County ARAB has relatively complete institutional Settings and technical service institutions from the county bureau to the township level, with more than 130 personnel, including more than 100 professional and technical personnel. These AHVMBs are responsible for the prevention & treatment of animal epidemics, epidemiological investigation diagnosis and treatment, and veterinary medical administration in the county, responsible for quarantine, supervision and other work of animals and animal products in the county. To be specific, there daily duties include:

- **Serving animal health and epidemic prevention & control at grassroots level:** The above-mentioned AHVMBs under ARABs at all levels have the institutions and personnel holding the quarantine certificate go deep into the farms, farming communities or cooperatives, and households in the agricultural and pastoral areas, widely publicize the animal epidemic prevention & control policies and relevant knowledge, and provide necessary skills training, and inspect the conditions of animal epidemic prevention in their breeding facilities and issue Animal Epidemic Prevention Certificates when the inspected conditions deemed satisfactory (See Figure 4-5-1 inspecting livestock farming facilities and issuing animal epidemic prevention certificate of Appendix 7 of this report). In accordance with the annual immunization plan, they provide livestock farms, farming zones or cooperatives and farming households with regular national compulsory immunization services and disease-related immunization services, focusing on FMD disease, avian influenza, swine fever, *Peste petit ruminant*, etc., in order to achieve the planned targets of animal immune density and herd immune antibody qualification rate, as well as service on cleaning and disinfecting the breeding facilities. Take Minle County as an example, in 2022, the immune density of all kinds of

livestock and poultry reached more than 98%, and the qualification rate of herd immune antibodies reached more than 80%. A total of 2.7686 million livestock and poultry were immunized against diseases. Focusing on livestock and poultry farms and intensive farming zones, they carried out four special actions of "big cleaning and disinfection", using a total of 6.9 tons of disinfection drugs covering 7.422 million square meters. In addition, large-scale livestock farms have also supplement immunization items according to the requirements of livestock varieties, populations and enterprise production. Breeding stock farms (such as sheep breeding farms, in order to prevent and control the transmission of brucellosis), adopt purification measures to prevent and control animal epidemics.

- **Handling administrative licenses for employees/institutions and sites, and formulate emergency plans for major animal epidemics outbreak:** In order to implement the official veterinary mechanism, animal and animal product quarantine mechanism, site and practitioner certification mechanism, and in responding to the applications of individuals institutions engaged in livestock production or/and slaughtering and processing, veterinary service, animal quarantine service, veterinary drug business, they inspect, examine the conditions of the sites and handle administrative licenses. Taking Jingchuan County as an example, the administrative licensing power operation flowchart of the county AHVMB is displayed in detail in the administrative publicity column of the county AHVMB (see Figure. 4-5-2 Administrative licensing power operation flowchart of AHVMB in Annex 7 of this report and Figure. 4-5-3 Animal quarantine personnel training, assessment and quarantine certification management). In accordance with the provision of relevant national and provincial laws & regulations on emergency plan for major animal epidemics outbreaks, ARABs at provincial, municipal and county levels, formulated their respective Emergency Plans for Major Animal Epidemics Outbreaks, and regularly update them with the latest editions in 2022. In line with the said emergency plans, some counties have drawn a working flow chart for the disposal of local major animal epidemics (see Figure 4-5-4 in Appendix 7 of this report).
- **Conducting animal epidemiological serving and clinical diagnosis:** through monitoring, survey and analysis, and in combination with the practice of animal health and disease prevention & control at the grassroots level, they conduct animal epidemiological survey and clinical diagnosis, and animal epidemic prediction to provide decision-making basis for the formulation of the animal disease prevention & control plan and immunization plan in the county, and the adoption of isolation, culling and disinfection measures. These efforts laid a foundation for AHVMBs to carry out law enforcement and supervision of various animal disease policies.
- **Risk assessment-based domestic³² animal quarantine testing** as an important means to prevent the spread of animal infectious diseases and protect animal husbandry production and people's health, the above AHVMBs under the ARABs at all levels have their certified agencies and practioners holding quarantine certificates to carry out domestic animal quarantine testing at key sites/links of animal production (from breeding, farming up to slaughter and segmentation) in accordance with statutory quarantine items, standards and methods. The key sites/links of animal production for quarantine testing/inspection include: livestock breeding sites, farming sites, site transition (e.g., testing before transferring of newborn animal from breeding stock to fattening farm and fattened stock), the main transportation channel for the transfer of livestock across the administrative region, slaughter houses (live animal at bye-kill zone and rough-processed products after slaughter). The quarantine inspection methods are the combination of field rapid detection and laboratory testing. For those who pass the quarantine test, issue the official "animal quarantine certificate", sign the animal quarantine seal, issue the animal quarantine mark and a unified bill, and enter the next step (as an important voucher for the regulatory of the relay downstream link of the Market Supervision Administration). In case of failure, the "quarantine treatment notice" will be issued to require the operation to be quarantined and observed until the quarantine passes, otherwise sanitary treatment shall be carried out under the supervision of the ARABs in accordance with the relevant provisions of the State.
- **Technical supporting - veterinary laboratory and agricultural product quality and safety testing laboratory:** the said laboratories are important technical support for animal quarantine,

³² Since this report is based the fact that large-scale intensive livestock production activities with high environmental and social risks have been excluded, only the existing small and medium-sized livestock production and animal health disease prevention and control management system in the county are assessed. The ESSA only focuses on the domestic animal disease detection part, The import and export quarantine of animals and livestock products that may be brought about by large-scale livestock production activities and those related to the customs quarantine management system are not included in the scope of this assessment.

diagnosis and treatment, scientific animal disease prevention and control, and ensuring the quality and safety of animal products and public health. Laboratories to be supported under the PforR are at county level, a few of them (such as the ones in Jingchuan and Lanzhou New District) will play roles as municipal ones) with biosafety levels of BSL-1 and BSL-2. The construction or upgrading of these types of labs require the preparation of EIA-form as per *Construction Project EIA Classified Management Catalogue*, and these biosafety levels of labs will first be certified by passing examination before operation and not be engage in high pathogenic microorganism experiment activities that should be carried out in the higher biosafety level PMLs as stipulated in the National Pathogenic Microorganism Catalogue. The environment and social team of the PforR found through its due diligence that, AHVMBs/stations in some counties have only very simple laboratory facilities and limited technical personnel to undertake the sampling work of disease surveillance and submit it to qualified professional laboratories in the provinces and municipalities for testing; Some counties are equipped with laboratories that meet the requirements of BSL-1 laboratories in site selection, layout, internal facilities and internal environment, and can undertake tasks such as anatomy, sampling, sample storage, serological testing, and e pathological testing; Some counties (such as Jingchuan County, Lanzhou New District) are equipped with their location, layout, internal facilities and internal environment in line with the requirements of BSL-2 laboratory laboratories, in addition to the general county veterinary laboratory testing tasks, can also undertake molecular biology testing tasks, layout of PCR laboratories and corresponding instruments, close to the level of municipal veterinary laboratories. For example, the agricultural technology service center of Lanzhou New District has Laboratory facilities, instruments and staff, a CAM certified Lab. This Lab, is equipped with facilities meet the requirements of BSL-2 laboratory, and is also equipped with a quality testing for agricultural and livestock products, which can undertake the tasks of crop pesticide residue detection, plants disease and pest detection, pest and weed detection, and veterinary drug residue detection of livestock products. These laboratory operators have developed sound management systems, biosafety management manuals, standard operating procedures (SOPs), and careful laboratory records. In accordance with the Quality and Technical Requirements for Veterinary Laboratories formulated by the Ministry of Agriculture NY/T2961-2016 (Normative Appendix B-Waste Management for veterinary laboratories), indoor wastes are collected separately with buckets marked with different colors and labels. Among them, buckets marked with “medical waste” are used for collection of laboratory viruses, bacterial culture medium, wasted bacterial strains, residual or expired positive samples and other hazardous waste. These medical wastes are sterilized by autoclaving and temporally stored in the designated place of the Lab before been handed over to county medical waste disposal center, who transport the waste by using unified transfer bill to the harmless medical waste treatment facility of the center for final disposal (see Figure 4-5-5 and Figure 4-5-6 In Appendix 7 of this report). Medical waste transfer and harmless disposal facilities is identified to be related facilities under this PforR, the environmental and social risk assessment of it is in Section 3.4.2.

- **Managing dead and diseased animals:** as described in sub-section 4.3.3.3 of the findings of E&S team of the PforR, the Plan of the provincial-wide regional centralized harmless disposal center for dead and diseased animals has been developed by Gansu DADA in accordance with national and provincial orientation for controlling pollution of dead and diseased animal and safe, hygienic and harmless disposal. The disposal of dead and diseased animals from each county’s livestock production is now in transition from distributed deep-burial mode towards safer & healthier centralized harmless disposal mode. The subsidy + insurance linkage mechanism has also been introduced for sanitary treatment of dead and diseased animals. With the insurance MARA's *Measures for the Management of the Sanitary treatment of Dead and diseased Livestock and Diseased Livestock and Poultry Products* in May 2022, and the gradual completion and operation of the regional centralized sanitary treatment center for dead and diseased animals in Gansu Province, not only sick and dead animals, but also sick and dead animals, moreover, livestock and poultry and livestock and poultry products³³ defined by the *Measures* to be subject to sanitary treatment" will be further harmlessly treated in a standardized manner.

³³ Livestock and poultry and livestock and poultry products that should be treated harmlessly include: those that died of epidemic disease or suspected epidemic disease, died of disease or the cause of death is unknown; those subject to quarantine or inspection may be harmful to human or animal health; death due to natural disasters, stress reactions, physical extrusion and other factors; the meat confirmed to be inedible by inspection of its quality during slaughter; stillbirth, mummy fetus, etc.; those being culled or destroyed for the prevention and control of animal epidemics; and other items that shall be treated harmlessly.

- **Risks management and control in “off-site grazing”:** In view of the risks of animal diseases and zoonotic diseases, potential risk of additional crops’ pest caused by caused by direct returning of untreated animal feces to the cropland under the "off-site grazing" mode, attention has been paid by AHVMBs under ARABs of local governments and following measures are being taken: First, before cattle and sheep are transferred from the pastoral area to the straw land in the agricultural area for grazing, the AHVMBs will conduct quarantine inspection on the animals, and only the animals with quarantine certificate are allowed to enter the agricultural area; *Vice versa*, before leaving the “off-site grazing” land, animals were subject to another quarantine inspection. The double quarantine inspections helped to avoid the transfer of infected animals between the pastoral area and the agricultural area. Second, the “off-site grazing” area were provided with special breeding rooms for female animals. Livestock farming workers/operators from pastoral area are long experienced in delivering female animals and preventing diseases, especially brucellosis, who wear PPE during the breeding of female animals in the winter in agricultural areas. Childbirth waste was promptly incinerated by herders on the spot, and the heat generated by the incineration was used for winter heating. Sunan County AHVMB plans to procure mobile female breeding service facilities to be supported under the PforR for further strengthening the service capacity of “off-site grazing” management and ability to control animal disease and zoonotic diseases. Third, the Agricultural machinery services center under ARAB who are responsible for crops protection have set up crop pests monitoring points in the “off-site grazing” area for monitoring, warning and forecasting pests. Once there are any signs of potential crop pests and diseases, specialized service organization will be notified in time for crop pest prevention & control. In the past 7-8 years of off-site grazing practice, only some weeds in the grazing area were observed during the grazing process, and no significant increase in the incidence of crop diseases and pests was observed.
- **Implementing measures to reduce the use of veterinary drugs:** in order to effectively strengthen the comprehensive treatment of antimicrobial drugs for veterinary use, effectively curb the resistance of animal-derived bacteria, correct the excessive residues of veterinary drugs, comprehensively improve the level of green and healthy livestock and poultry farming, promote the high-quality development of animal husbandry, and effectively safeguard the production safety of livestock, food safety of animal origin, public health security and biosecurity, The MARA formulated the National Action Plan for Reducing the Use of Veterinary Antimicrobials (2021-2025), and the DARA of Gansu Province formulated the Implementation Plan for Reducing the use of veterinary Antimicrobials (2021-2025). At the municipal level, Implementation Plan for Reducing the Use of Antimicrobial Drugs for Veterinary Use were developed. At county level, actions are taken to implement the plans, including, mobilization meetings, provision of relevant trainings, “conducting resistance reduction actions" in farms, breeding communities or cooperatives, conducting self-assessment of reduction, and identify those farms or cooperatives that have met the requirements of county-level resistance reduction actions, etc.
- **Regulatory and law enforcement management:** in accordance with the provisions of relevant laws and regulations on animal health and disease prevention and control, AHVMB under the DARA of Gansu Province formulated the *Measures for Supervision & Examination of the Prevention and Control of Major Animal Epidemics in Gansu Province* in 2013, revised again in August 2023. The *Measures* standardize the supervision and inspection of animal epidemic prevention, and improve the administrative efficiency and work efficiency. The law enforcement teams of AHVMBs are responsible for supervision and examination of animal epidemic prevention conditions certificated to the livestock farms, farming zones, households, and animal slaughter houses, dead and diseased animal sanitary disposal sites, veterinary drugs business outlets, animal feeds outlets. At the meantime, they worked jointly with Market Supervision and Administrations (MSAs) at or above the same levels to supervise and administer animal and animal product trading markets and animal product storage sites. For example, Animal health surveillance Office of Jingchuan County, in order to perform its animal health supervision and law enforcement duties in a standardized and transparent manner, the Office drew a clear regulatory inspection flow chart for specific law enforcement management work; the Office carried out regular and irregular random sampling supervision and inspection, kept recording quarantine inspection list for the key links/points of livestock production. Supervision and management of animal disease prevention and control and animal production safety were conducted through the establishment of animal epidemic prevention and key work guidance ledger, and the establishment of production safety and fire safety supervision and inspection records

(see Figure 4-5-7 Animal Health Safety and Disease prevention and Control supervision and management in Appendix 7 of this report).

107. **EEBs:** are important authorities for controlling the pollution from various in all important links of livestock production (such as livestock farms and farming zones, slaughter and processing, forage planting and feed processing, animal health and disease prevention and control, disposal of sick and dead animals, deep processing, storage, transportation and distribution of livestock products, sanitary treatment of medical waste as related facilities, etc.). EEBs participate in the relevant departments/bureaus to formulate the reduced uses of agricultural and rural fertilizers, pesticides, veterinary drugs, the agro-food production site purification action plans, agricultural and rural carbon sequestration and emission reduction plans, so as to safeguard animal health, animal product quality and public health and safety. There are EIA divisions/sections or administrative approval sections (2~3 staff), environmental law enforcement teams (about 10 staff at county level) under EEBs at provincial, municipal and county levels. Specifically in the protection of animal health, quality and safety of livestock products and public health management, they have the following responsibilities:

- **Implementing EIA system to prevent pollution in livestock production:** in accordance with local national laws and regulations on pollution prevention and control and EIA, they conduct review and approval of EIA document (the said documents cover detailed analysis and assessment of wastes and sanitary treatment) for construction projects of large-scale livestock farms and farming zone, slaughtering and processing plants, veterinary laboratories and/or animal product quality and safety testing labs, sick and dead animal disposal centers, livestock product deep processing, storage, transportation and distribution facilities, and related medical waste treatment centers, and registration for endorsement, and follow-up activities (see Section 4.2 of this report for details)
- **Controlling pollution from livestock production through implementation of pollution discharge permit mechanism:** livestock farms, farming zones, animals slaughter houses and processing plants, veterinary laboratories and/or animal product quality and safety testing labs, sick and dead animal disposal centers, livestock product deep processing, storage, transportation and distribution facilities, and the related medical waste treatment centers shall have pollution discharge/emission permits (certificates allowing pollutant discharge units to discharge a certain amount of pollutants) issued by EEBs. EEBs' law enforcement teams carry out focused management, simplified management or registration management on the above-said pollution discharge/emission units by means of regular or irregular and random sampling. These activities are often done in collaboration with integrated agricultural Law enforcement or animal and veterinary law enforcement teams of ARABs (see section 4.3 of the present report for details).
- **Participating in the formulation of rural non-point source pollution control, emission reduction and carbon sequestration action plans with relevant departments/bureaus:** EEBs participate in the formulation of action plans for reduced use of chemical fertilizers, pesticides, veterinary drugs, production sites environmental purification action plans, agricultural and rural carbon sequestration and emission reduction plans with relevant departments, and guide the implementation of these action plans (for details, see section 4.5.2 of this report).

108. **FGBs:** are responsible for managing and controlling the use of harmful grassland pasture insecticides, rodenticides so as to ensure the quality and safety of pasture and grasslands, the upstream of livestock production (see section 4.5.2 of this report for details).

109. **MSAs:** are responsible for managing and supervision of agro-food safety and quality at the key links/points of livestock value chains, the downstream after slaughtering, such as deep processing of livestock products, cold storage, distribution and market, to ensure public health and safety (see Chapter 5 for details).

110. **HCs:** are responsible for the safeguard human health and safety through prevention and control of human diseases related to zoonotic diseases, (see Chapter 5 for details).

111. **Emergency Management Bureaus (EMBs):** are responsible for emergency management, guiding relevant sectors to respond to production safety, emergencies, and comprehensive supervision of production safety. In the event of a major animal epidemic situation, EMBs take the initiative to organize relevant ARABs, AHVMBs to plan emergency plans for major animal epidemics, organize and coordinate livestock production safety production and emergency rescue for animal epidemics, establish an emergency reporting system and reserve and uniformly dispatch materials. They actively organize the handling, investigation and accountability of accidents and disasters (see Chapter 5 for details).

112. In addition, some enterprises engaged in livestock production and product processing, under the incentive of the certification system, create an internal quality management system of the enterprise, and pass the GB/T19001-2008/ISO9001 international quality certification, food safety management system of Hazard Analysis and Critical Control Point (HACCP) certification, and green food certification of animal products; Through the industrialization development model of "company + cooperative + farmers and herdsmen", the enterprises drive the surrounding communities and farmers and herdsmen to implement the provincial government's implementation Plan on Further strengthening the establishment of two "Three goods and one standard" to build a well-known brand of "Gansu Flavor" agricultural products (2019-2023), to response positively the calls for improving the quality of livestock products and ensuring public health and safety.

Animal welfare practice in China and Gansu livestock operation: Although, compared with developed country, China's legislation and standard system for improved animal welfare lags behind, with the development of China's economy with consumers' demand change, animal welfare is on the rise, China is gradually attaching importance to the formulation of animal welfare standards. In May 2014, China's first farm animal welfare standard *Farm animal welfare Requirements for Pigs* was enacted, filling the gap in China's animal welfare standards, followed by a series of farm animal welfare requirements for other types of livestock. Some agribusiness enterprises, engaged in livestock sector are exploring and practicing animal welfare measure suitable for local conditions by collaboration with international counterpart and referring to international animal welfare standards. During the field visit, the E&S team observe following animal welfare practices: 1) livestock housing condition favorable to animal welfare: the newly built livestock farms or farming zones that EIA were cleared, were designed to comply with Technical Specification for Design of Livestock Farm with a certain activity space for animals to stand, stretch, turn around, sit and interact with herd or flock mates. Walls are built to protect animals from predators, pests and excessive noise. There are special feed channels and drinking tanks, equipped with harmless disposal of manure, effluent drainage, ventilation, lighting facilities or equipment. Special open ground for animal sports are provided. In the cold and highland area of Sunan County, warm animal housing were provided, and special warm "clothes" were designed for lamb to wear during winter. Some companies certified with green, organic animal products certificates play music during cow rearing and milking; 2) In keeping animal health, regular disinfection, animal quarantine, and timely diagnosis and treatment of sick animals are provided by official veterinarians from local animal husbandry and veterinary stations to livestock farming zones run or by smallholders, cooperatives, or veterinary professionals employed by agribusiness enterprise engaged in livestock sector themselves, so to ensure animals are not suffering from pain, injury and illness; 3) Animal welfare in slaughtering, Gansu Province implements the fixed-point slaughter system for live pigs, cattle and sheep, which generally relies on the slaughter facilities built by large enterprises engaged in animal husbandry as officially recognized fixed-point slaughterhouses. The slaughterhouses are designed with lairage for reception of animals delivered, where water and feed are provided. The slaughter workshop is highly automatically controlled mechanical equipment, the first process is to stunning, sticking, then bleeding, to avoid the animal sentient situation of slaughtering; 4) In agro-food quality management, one of the tasks of the law enforcement teams under county AHVMBs include the inspection/supervision of whether the animal feed constrains banned antibiotics, "the clenbuterol" and feed additives. The main task of local MSAs in their regular inspection and supervision on marketable animal food is to sampling and testing the illegal waterlogged meat, residual antibiotics. With such enforcement inspections also force enterprises, cooperatives and farmers engaged in animal breeding and slaughtering to refrain from ill-treating and frightening animals. With the newly established standards application, these practices is to be further improved to approach to the rang of good practice described in IFC's Good Practice Note on Improving Animal Welfare in Livestock Operation (Dec. 2014) and World Bank's Good Practice Note on Animal Health and Related Risk. It is noted however, due to at the initial stage, the awareness-

raising of animal welfare to the Chinese public and relevant enterprises is yet to be improved through strengthened publicity and education and training. 4.5.1.4 Brief Summary

113. The typical physical activities of the PforR will be carried out in a wide range of areas within the 7 Program counties (district) in Gansu Province. Among them, livestock production methods and scales differ from county to county (such as grazing, shed-feeding and semi-shed feeding, animal immunization density, and potential disease transmission modes vary in the pastoral areas or agro-pastoral mixed areas, and agricultural areas, which put forward high requirements for animals health and epidemic prevention & control. As one of the largest livestock production provinces in China, Gansu has established a set of relevant institutional systems, technical support measures and law enforcement supervision measures under the framework of national and local laws and regulations to improve the protection of animal health and epidemic prevention & control. Measures such as publicity and education, monitoring, immunization, and quarantine of all livestock production links/points have been taken at the grass-roots level, standardized livestock production facilities and technologies, including pollution control and safety isolation, have been gradually equipped and popularized, and corresponding management measures have been formulated, and centers for the sanitary treatment of sick and dead animals have been standardized and built, and actions to reduce the use of veterinary drugs have been implemented. These measures and tools are generally in line with the World Bank Group's EHS Guidelines for Mammalian Livestock Production and the Office of International Epizootic (OIE)'s Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual), covering agro-food quality and safety practices in good international industry practice, as well as the Bank's Core Principles on Health and Safety. The animal health, agro-food quality and public health management system can effectively control the potential risks of animal diseases and agro-food quality. The county-level veterinary laboratories to be supported by the PforR will not engage in experiments of highly pathogenic microorganisms according to the requirements of relevant national laws and regulations. The construction and operation of the labs will be carried out in strict accordance with relevant national and sectoral standards or code, and their biosafety will be fully manageable. The E&S team found during its due diligence that some small to medium scale livestock farming zones have inadequate health and safety management measures, disease (including zoonotic diseases) prevention and control measures and supporting facilities, some workers/operators were not wearing personal protective equipment (PPE), as well as inadequate operational procedures and internal management systems. This gap is yet to be improved to comply with the Regulation for the Construction of Livestock and Poultry Farms and farming Zones in Gansu Province and Measures for Filing Management. The awareness-raising of animal welfare among the Chinese public and relevant enterprises is yet to be improved through strengthened publicity and education and training. It is recommended to document cases of good practices and experience various counties in preventing and controlling animal diseases and zoonotic diseases and animal welfare, and share with small-medium livestock farming facilities operators for them to prepare safety measures to be included into the Environmental and Safety Code of Procedures (ES COP).

4.5.2 Health and Safety Management System on the Use of Pesticide for Grasslands and Artificial Forage Pests Control

4.5.2.1 Applicable Legal Framework

Table 4-16 A List of Applicable Laws and Regulations on Use of Pesticides for Grasslands & Forage Pests Control

Names of laws, regulations, policy standards and specifications	Issuing authority/time	Relevant Main Provisions
1. Health & Safety Use of Pesticide for Controlling Grassland Pest		
Grassland Law of the PRC	NPC issued in June 1985, 3 rd amended in 2021	The local people's governments at or above the county level shall work hard for organizing and administering the prevention and control of rats, pests, diseases and toxic grasses on the grasslands. The FGBs of the local people's governments at or above the county level shall take measures to strengthen the monitoring, early warning, survey and prevention of grassland pests, diseases, pests and toxic grasses, and organize research and promotion of integrated prevention and control methods. It is prohibited to use pesticides that are highly toxic with high residues and may cause secondary poisoning on grasslands.

Phytosanitary ordinance	SC issued in 1983, amended in 2017	The Ordinance is formulated to prevent the spread of dangerous venereal diseases, insects and weeds that harm plants and to protect the safety of agricultural and forestry production. The MARA and the NFGA under The State Council shall be in charge of the work of plant quarantine throughout the country, and the ARABs and FGBs provinces, autonomous regions and municipalities shall be in charge of the work of plant quarantine in their respective regions. The Ordinance stipulate that "all diseases, insects and weeds that are locally dangerous and can be spread with plants and their products shall be designated as plant quarantine objects."
Biosecurity Law of the PRC	NPC, issued in 2020	For the prevention and control of major new outbreaks of animal and plant diseases, the Law stipulated that the competent departments of ARABs, FGBs under the people's governments at or above the county level shall strengthen the guidance and supervision of rational use of drugs/pesticides in agricultural production; take measures to prevent inappropriate use of antimicrobials and reduce residues in agricultural production environments; The state has strengthened prevention and response to the invasion of alien species to protect biodiversity. The competent MARA under The State Council shall, in conjunction with other relevant departments under The State Council, formulate a list of invasive alien species and measures for their management
Measures for the Management of Invasive Alien Species	MARA, MNR, MEE, General Administration of Customs jointly issued in May 2022	The Measures , formulated in accordance with the Biosafety Law of the PRC , aim to prevent and respond to the harm of invasive alien species, ensure the sustainable development of agriculture, forestry, animal husbandry and fisheries, and protect biodiversity. The Measures make provisions on the prevention, monitoring and early warning, treatment of invasive alien species at the source, further strengthen the prevention and control of invasive alien species from all aspects, and build a whole-chain prevention and control system. It clears responsibilities among authorities: the MARA, together with relevant departments shall established an inter-ministerial coordination mechanism for the prevention and control of alien invasive species. Local people's governments at or above the county level are responsible for the prevention and control of alien invasive species in their respective administrative areas according to law, and relevant departments of local people's governments at or above the county level are responsible for the prevention and control work according to their respective responsibilities. The Measures encourage public participation, call for strengthened publicity, education and scientific popularization, encourage and guide the public to participate in prevention and control work according to law, and no unit or individual shall introduce, release or discard alien species without approval.
Main Grassland Pest control Indicators	NFGA issued in 2021	The control indicators cover basically covers the main types of grassland pests, including both above-ground and underground pests, migratory pests, non-migratory pests and toxic grasses. The grassland pests mainly include voles, gerbils, jerboa, rabbit tail mice, pika, yellow mice and myospalax, etc. The main insect pests are migratory locusts, grassland borer, non-migratory locusts, grassland caterpillar and noctua moth, etc. The main toxic grasses are ragweed, tripartite ragweed, yellow flower, and Tribulus terrestris, which are classified as new alien (invasive) toxic grasses and general toxic grasses.
Gansu Provincial Emergency Plan for Controlling Grasslands Pest	Gansu Provincial Government issued in Oct. 2022	The formulation of the emergency plan is to comprehensively prevent and control grassland pests, prevent the outbreak and spread of grassland pests, reduce economic losses, and protect grassland resources and grassland eco-environment. It is suitable for dealing with the disaster caused by the large-scale outbreak and spread of grassland pests, such as grassland locust, grassland caterpillar, spiny moth, crassiorhynchus bacci, crocidorhynchus latitibia, grassland borella, bitter bean moth and white grub. According to the characteristics of pest and statistical science, the appropriate control indicator units were set, among which two indicators were set, namely the number of effective holes or the number of new rodent hills /hm ² and the proportion of bald spots (%). The indicator of grassland pest control was set as the population density (head /m ² , head/standard branch). The population density of noctua (larva) locusts and grassland bores were mostly investigated by head /m ² , and the population density was mostly investigated by head/standard branch. The control index of pest plants in grassland was set as the coverage of poisonous grass (%).
Gansu Province annual grassland work points		The work points include, among the other, strengthening pest control, issuance of the Emergency Plan for Pest Prevention and Control of Grassland in Gansu Province for strengthening the early warning and forecast of grassland pests. strengthening unified prevention and control, scientifically and reasonably arrange the tasks and targets of pest control in grasslands, and completing the prevention and control of pest in grasslands of

		more than a certain area (such as 6.8 million mu in 2019). The Province will develop demonstration areas for the prevention and control of rodents and pests on grasslands, and carry out surveys of pests on grasslands.
2. Health & Safety Use of Pesticide for Controlling Forage Pest		
Pesticide Management Regulations	SC issued in 1997, 2nd amended in 2022	Pesticide producers and sellers have responsibility for the safety and quality of their pesticide products and should accept government and public supervision. Government should encourage and support the research, production and use of safe, efficient and economical pesticides, promotes the specialized use of pesticides, and promotes the upgrading of the pesticide industry. Government should promote biological and physical approaches in pest control and encourage to use advanced spray equipment to reduce pesticide use. Pesticide producers and sellers are subject to pesticide registration and permitting requirements. Pesticide users are asked to follow specifications when applying pesticides. ARABs should regularly oversee pesticide production, sale, and use. Pesticide users shall protect the environment, beneficial organisms and rare species, and shall not discard pesticides, pesticide packages or clean application instruments in drinking water source protection areas or river courses.
Technical program for the Annual prevention and control of major crop diseases and pests in Gansu Province		The technical program advocates vigorously promoting the green prevention and control technology of diseases and insects, in-depth implementation of pesticide zero growth action, and protection of agricultural production, agro-food quality and agricultural ecological environment safety in the province
Others		Laws and regulations, guidelines related to pollution control from the prevention and control grassland and forage crops pest, such as the <i>Regulations on Pest Control of Crops</i> , the <i>Measures for the Management of Specialized Pest Control Services of Crops</i> , the <i>Technical Guidelines for Green Agricultural Development (2018-2030)</i> , and the <i>Action Plan for Zero Growth of Pesticide Use by 2020</i> , etc. (see section 4.3.2 of this report).

4.5.2.2 Implementation Mechanism and Procedures

114. In order to implement the above-mentioned laws and regulations on the health and safety management of pest control in grasslands and the prevention and control of diseases and pests in artificial forage planting, China and Gansu Province are establishing and gradually improving the relevant implementation mechanisms, which are listed in Table 4-12 below.

Table 4-17 Implementation Mechanism for Health & Safety Use of Pesticides

Implementation Mechanisms/ Procedures	Description
1. Health & Safety Management on the Use of Pesticides on Grasslands	
Forest-Grassland Chief System	It refers to the establishment of a five-level forest and grassland chief system at provincial, city, county and village levels in accordance with the principle of "hierarchical responsibility", and forest and grassland chiefs at all levels are responsible for supervising and guiding the protection and development of forest and grassland resources in their responsibility areas, coordinating to solve major problems in the protection and development of forest and grassland resources, and investigating and punishing all kinds of illegal and criminal acts that destroy forest and grassland resources according to law. In the prevention and control of pests in the grassland, the Provincial General Grassland Station sent a supervision team to urge the promotion of pest control work, timely notify and remind the problems found, supervise and guide the completion of prevention and control work in various places, and ensure the orderly progress of prevention and control work.
<ul style="list-style-type: none"> ● Prevention first ● Integrated Pest Management (IPM) ● Ecological priority 	<ul style="list-style-type: none"> ● Dynamic monitoring of grassland pests, forecasting, and preventive "early mobilization, early deployment, early prevention and control" ● In the prevention and control process, green and low-toxicity technical measures of biological control and IPM will be promoted ● Tries to achieve the prevention and control of toxic grasses: in non-grazing grasslands -- regardless, desert grasslands -- regardless, alpine meadows -- artificial excavation, grazing grasslands -- artificial intervention
2. Health & Safety Management on the Use of Pesticide on Forage Plantation	
Licensing pesticides	In the production and marketing links: pesticide producers and sellers implement the registration certificate

producers and sellers	system, consciously accept government supervision and social supervision, in order to ensure the safety and effectiveness of pesticides, so as to supervise pesticide producers and operators.
Integrated and specialized pest control mechanism	<p>Management of pesticide users in the use of pesticides: the government provides unified control and control services for diseases and pests, including forage grass, through the purchase of specialized service agencies. Compared with small farmers, specialized service agencies have the following advantages that are conducive to the safety of pesticide use:</p> <ul style="list-style-type: none"> ● Providing integrated pest control technologies to support the implementation of the Government's pesticide use reduction initiatives; ● There are more stringent safety regulations and preventive equipment to minimize the safety risks of contact and exposure to pesticides; ● With relevant professional knowledge, means and equipment, the specialized service agencies are capable of use environmental-friendly and efficient fertilizers & pesticides and biological agents, and application of agricultural NPS control technology, reduced use of fertilizer & pesticide with efficiency improvement technology, agricultural waste recycling technology; etc.

4.5.2.3 Institutional Organization and Performance

115. **FGBs:** Are the main management and supervision competent departments/bureaus for grassland pest control and health and safety use of pesticides. From Gansu Province to the municipal and county, and then to the township and village levels, there are forest and grassland institutions and technical guiding and serving teams. Gansu has implemented the "forest-grassland chief system", under the command of forest and grassland chiefs at all levels, the implementation of the work policy of "prevention first, integrated prevention and control", scientific and standardized pest prevention and control on grassland are practiced to effectively protect grassland resources, and maintain the balance of grassland ecosystems. At the county level, the main measures taken by the forest and grass workstations, technical extension centers, law enforcement teams, township workstations, and grass-roots grass officials at the village level are as follows:

- **Monitoring, early warning and forecasting of harmful organisms in grasslands:** On the basis of existing human resources, they carry out regular (such as once a year) grassland pest monitoring and early warning and forecasting work, actively participate in the establishment of the "forestry and grassland biosafety risk prevention and control system" and the "national grassland pest survey" under the leadership of NFGA, and prepare the grassland pest emergency plans within the county. For example, Sunan County, Guazhou County and Minle County, which have a large grassland area, actively bid to establish the construction project of pest monitoring facilities on the grasslands, carry out the monitoring and survey of pest monitoring on the grassland, prepare the county's "grassland pest control emergency plan", and participate in the province's grassland pest occurrence trend consultation and research. Key counties (cities and districts) work hard in monitoring, early warning, prevention and control of grassland biological disasters in key areas of the province.
- **Conducting prevention and control of pests in grasslands:** Focusing on the characteristics of local pests such as rats and grasshopper, on the basis of dynamic monitoring, they implement a 24-hour duty and weekly report system in the critical period of grassland pest control from June to August, designate special personnel responsible for disaster reporting and major disaster reporting at any time to provide scientific basis for prevention and control decisions. In the work of pest control and rodent control, the use of efficient, low-toxicity, economic and safe insecticides and rodenticides are encouraged, while the use of secondary poisoning and serious environmental pollution agents is strictly prohibited. Helicopters and drones flight prevention and artificial + large, small, medium and other equipment are used as main tools to spray agents under the supervision of forest and grass law enforcement teams.

116. **ARABs:** are the main management and supervision competent departments/bureaus for forage crops' pest control and health and safety use of pesticides. From Gansu Province to the municipalities and counties, there are crop plant protection institutions and technical teams, and the governments provide specialized services for crop disease and pest control through the purchase of specialized service agencies. In terms of measures, such measures as dynamic monitoring of crop diseases and insect pests, and preparation of the annual major crop disease prevention and control technical program were taken. In terms of technical means, priority is given to adopting more environmental-friendly and IPM methods, such as physical or biological technologies, to replace the use of chemical pesticides. Low toxicity and high efficiency pesticides are recommended. Pesticide producers must register their pesticide products and obtain a production license. Sellers of pesticides must obtain a marketing license. Pesticide users should follow the regulations for the safe

use and storage of pesticides and use the necessary personal protective equipment (masks, goggles, gloves, etc.) to avoid accidents while applying pesticides.

117. **Inter-departmental action for integrated safety guarantee:** In principle, EMBs and HCs at all levels are responsible for the extensive coordination and guidance of health and safety management involved in production and construction activities. FGBs and ARABs will guide professional service agencies for pest control in grasslands and in forage plantation to safely store, apply pesticides, and wear personal protective equipment to avoid poisoning the public or application operators, and ensure the quality and safety of agricultural and livestock products

4.5.2.3 Brief Summary

118. China and Gansu Province have the appropriate regulatory framework, institutional organization, staffing and funding for grassland pest control, forage crop pest control and pesticides management, and are vigorously promoting green and IPM measures and implementing pesticide use reduction actions in line with the principle of ecological priority. The system is comparable to the World Bank's General Guidelines on EHS and Guidance on EHS for Annual/Perennial Crop Production, and covers GIIP for pest management, pesticide use and management. They have made significant achievements in the past and their experience and abilities have proven to be sufficient to serve the management of this PforR. The system is consistent with the Bank's core principles

4.6 Consistency with the Bank Principles

119. After assessing the four EMSs, namely the EIA and follow-up management system, the pollution control management system, the eco-environmental conservation management system, and the health & safety management system, the consistency with the Bank's core principles and elements is analysed in this section with details presented in **Error! Reference source not found.**

Principle #1 - EIA and management: *Program environmental management systems are designed to promote environmental sustainability in the Program design; avoid, minimize, or mitigate adverse impacts; and promote informed decision-making related to a program's environmental effects. Other aspects are analysed in Chapter 5.*

120. China has established a complete legal framework on environmental management. Governed by the Environmental Protection Law, numerous environmental management laws, bylaws, technical guidelines, standards, mechanisms, and procedures on conserving natural ecosystem, EIA and pollution control constitute a comprehensive legal framework. In the field of animal husbandry and crops plantation, the Environmental Protection Law has articles and provisions specifically covering animal husbandry production and agro-ecological environmental protection. In the Agricultural Law, Grassland Law, Animal Husbandry Law and Animal Epidemic Prevention Law, there are special chapters and provisions on eco-environmental protection, as well as regulations or management measures related to livestock and poultry pollution control, agricultural NPS pollution control, animal and plant protection, fertilizer disease and pest management, etc., such as the "livestock and poultry large-scale farming pollution control regulations", "crop pest control regulations", "Crop pest control regulations", "pesticides management regulations", " Regulation Gansu Province for the Construction of Livestock and Poultry Farms and Farming zones and Measures for Record Management ", as well as relevant national and local management methods, technical guidelines, sectoral environmental standards, etc. In accordance with these legislations, China and Gansu Province have established corresponding implementation mechanisms to guide the assessment of the environmental impact of the project activities and the management of environmental risks.

121. The EIA management system requires to conduct environmental screening and classification at the early stage of construction project design and EIA. EIA instruments will include alternatives analysis, impacts (including positive & negative, long-term & short-term, direct & indirect and cumulative impacts) projection and assessment, mitigation measures, management responsibilities and budgets, environmental monitoring plan, public consultation, information disclosure, monitoring plans, etc.

122. The Bank E&S team found through its due diligence that activities similar to typical activities to be supported under the PforR strictly implemented the mechanisms of ERL and the list for industrial/ sectoral access in key ecological functional zones. Livestock farms were planned, sited by following principles set forth in the technical guidelines for demarcating forbidden areas for livestock and poultry farming. In general,

activities/facilities were designed, prepared constructed and operated in compliance with relevant laws & regulations, with appropriate measures meeting the requirements of health and safety management of workers. However, some of farming cooperatives/households who run livestock farming zones with stock capacity reaching the defined scale in the "Gansu Province Livestock and Poultry Farming Zone Construction Standards and Filing Management Measures" (2007)" have inadequate manure treatment and utilization and animals diseases, zoonotic diseased control facilities. Some of which employ open-air manure stacking sheds with low processing levels. Some operators of small-medium livestock farming facilities or individuals exhibit a lower adoption rate of health and safety management measures, disease prevention and control measures (including zoonotic diseases) and inadequate wear of PPE. Thus, the health of the workers and the surrounding communities are potentially & negatively affected. Some of which lack corresponding operational procedures and internal management systems. It is recommended that those small and medium scale livestock farming zones with poor environment and sanitary conditions be upgraded and equipped with necessary animal safety, animal disease, zoonotic diseases prevention and control facilities, and manure treatment facilities by incorporating such upgrading activities into the Program implementation plan (PIP); Training and education of the awareness of entities operating small to medium scale livestock farming zones on health and safety, environmental protection, necessity & importance of wearing PPE, accidents prevention and emergency responsiveness etc., be strengthened. Cases of good practices and experiences of various counties in controlling pollution from livestock production, and in preventing & controlling animal disease and zoonotic disease be documented, shared with small-medium livestock farming zones operators for them to prepare Environmental & Safety Code of Procedures (ESCOP).

Principle #2 - Natural habitat protection: Program environmental management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats are not eligible for PforR financing. Other aspects are analysed in Chapter 5.

123. China has brought critical or natural habitats into the scope of ERL that are strictly conserved and managed. Ecological factors (including critical habitats and biodiversity) are important sensitive receptors to be identified and assessed in EIA, and ecological impact assessment is one of the important components of EIA. It's compulsory that EIA must strictly follow the requirements of ERL. For new constructive project, site selection must be subject to approval by NRBs, EEBs, FGBs, and other related authorities, so the relationship between project site and natural habitats or other environmental sensitive areas will be identified in the early stage of project preparation. If the construction of facilities related to livestock production involves the experimental zones of nature reserves or natural habitats, environmental impact reports or special reports on the ecological impact of the proposed facilities on nature reserves must be prepared and approved after strict expert assessment and departmental review.

124. In this PforR, typical activities related to sustainable grassland management involve ecologically sensitive areas such as nature reserves. In view of the fact that China, Gansu Province and the Program areas have established and are improving the corresponding laws and regulations system, and practicing the relevant mechanisms to promote ecological civilization and the green cycle of agriculture and animal husbandry (such as strict ERL control, grassland grazing ban, grass-livestock balance, ecological compensation, etc.), there have been a sound management system under the corresponding legislations to effectively avoid adverse impact of the PforR activities on natural habitats and grassland ecosystem, in terms of controlling the ERL, monitoring the ecological environmental impact of construction projects related to the livestock production, and in terms of a reasonable institutional organizations staffed and operated at county, town/township and village levels. Following the Program environmental exclusionary criteria, those activities that may affect important natural habitats have been excluded from the scope of the PforR. Typical activities to be implemented, particularly in RA1-sustainable grassland management are to further direct current activities to be more conducive to protecting the eco-environment of natural grasslands, more climate-smart green cycling, improving livestock production efficiency, and reducing pollution and GHG emissions. Therefore, the PforR will not cause significant damage to or degradation of important natural habitats

Principle #3 - Health and safety: Program environmental management systems are designed to protect public and worker safety against the potential risks associated with exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the PforR. Other aspects are analysed in Chapter 5.

125. China has basically established a sound management system for animal health, epidemic prevention and control, and the quality and safety of livestock products. On the basis of a sound environmental protection

system and a sound human health prevention and control system, China is building and improving the "one health" management system for the health of animals, environment and human. Under a set of laws, regulations, standards and guidelines, there are similar to or even more complex than environmental protection and pollution control systems. In terms of animal husbandry, there are the Animal Husbandry Law, the Animal Epidemic Prevention Law, the Regulation on Emergency Response to Major Animal Epidemic Outbreaks, the Regulations on the Management of Veterinary Drugs, and the relevant regulations concerning various animal quarantine, animal husbandry safety production, sick and dead animals, pollution prevention and control (including medical waste prevention and control); In the cultivation of feed crops, there are "Regulation on Pesticide Management", "Measures for the Management of pesticide packaging waste recycling and treatment", "Guidelines for the safe use of pesticides", "Classification of Occupational Hazards of Construction Projects", "Classification and Catalogue of Occupational Diseases", etc. In terms of the quality assurance of livestock products, there are "Agricultural product Quality Safety Law", "Feed and feed additives management Regulation" and "pollution-free agricultural products management Measures". In terms of grassland management, there are the Grassland Law, the Regulations on Plant Quarantine, and the Implementation Regulations on pest Control and rodent Control in grasslands, etc. All of them constitute the corresponding legal framework, implementation mechanism and institutional arrangement for the management of agricultural crop production and livestock production in China and Gansu Province.

126. ARABs (FGBs), EEBs, HCs, EMBs, MSAs at all levels have the ability and experience to implement environmental, health and safety management under the strict supervision of local governments. Through the promotion and education of animal disease prevention and control knowledge and skills in farms/cooperatives/enterprises, the implementation of animal disease surveillance, early warning and forecasting, animal quarantine, grassland and crop disease and pest control, and veterinary drug reduction actions, they vigorously promote measures such as low-toxic and high-efficiency insecticides and supervision of animal husbandry and veterinary law enforcement teams, and build a relatively complete institutional system, technical support measures and law enforcement supervision means to protect animal health disease prevention and control, which can effectively serve the PforR. There are rooms for improvement and upgrading: some small and medium-sized livestock farming zones operated by smallholders or cooperatives, have rooms to improve their management in pollution control, health & hygiene and animal safety, epidemic prevention & control and upgrading their corresponding facilities; the "off-site grazing" model has rooms to improve animal diseases, zoonotic diseases prevention & control. These improvements will be listed in the E&S Action Plans (see Chapter 7 of this report).

127. Conclusion: The comparison concludes that China's EMSs in terms of legal framework, management mechanism, and institutional arrangement are well established, and the implementation performance are demonstrated substantially satisfactory. In general, the EMSs are consistent with the Bank's PforR ESSA Guidance, the core principles, and the EHS guidelines (including the general guidelines and guidelines for annual/perennial crop production, for mammalian livestock production), and OIE's Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. The EMSs are qualified to manage the environmental issues associated with the PforR typical activities, particularly on the grasslands management, livestock production. A generic E&S mitigation measures for managing potential E&S risks related to the PforR activities is also attached in Appendix 8 for reference of relevant agencies of Gansu Province. The environmental action plans have been recommended in the ESSA (as presented in Chapter 7) to fill the gaps identified in the due diligence investigation, and the EMSs are expected to be improved through the implementation of the PforR.

5. Social Management System Assessment

128. The Bank’s PforR ESSA Guidance lays down a set of principles and elements for assessing the borrower’s E&S systems systematically. This chapter identifies and analyzes China’s corresponding social management systems, and assess the relevant social management regulations, management mechanisms and capacity, and implementation performance based on the types of social risks and impacts, and against the six core principles and 13 elements stipulated in the Guidance and propose recommendations and an action plan for the identified gaps.

129. Chapter 3 shows that the social impacts and risks of the PforR activities in Shandong and Gansu fall into the following types: comprehensive social impacts (e.g., social conflict, fairness, transparency, NIMBY, etc.), tangible culture heritage, public and worker safety, land acquisition, restriction on land use and resettlement, and non-inclusiveness impacts on ethnic minorities and vulnerable groups.

130. The social risks management is achieved in China from the national to local levels by formulating and implementing a series of laws and policies and establishing and running appropriate management agencies and mechanisms. Social management systems consist of laws and regulations, management agencies and mechanisms, and management practices. In China’s social management systems, different social risks and impacts are managed by different government agencies (see Table 5-1).

5.1 Correlation Analysis with the Bank’s Principles

131. Generally, all the six core principles of PforR ESSA are relevant to the PforR social management system. See Table 5-1 for a correlation analysis between China’s social management systems and the Bank policy.

Table 5-1: Correlation Analysis between the Chinese Social Management System and the Bank Policy

Social impacts and risks	Bank policy principle	China’s social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
Comprehensive social impacts, e.g., social conflict, fairness, transparency, NIMBY	Principle #1: social impacts and risks assessment and management system Principle #6: social conflict	Notice of the National Development and Reform Commission on Issuing the Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects (2021 Amendment)	State: National Development and Reform Commission (NDRC); Gansu Province: <ul style="list-style-type: none"> • Leading authorities: provincial DRC, provincial, municipal and county political and legal affairs committees (PLAC), public complaints and proposals bureaus (PCPB); • Assessors: municipal and county competent authorities (e.g., grassland protection authorities) and appointed third parties • Registration authorities: provincial (cross-regional / cross-departmental projects), or municipal and county PLACs • Decision-making authorities: municipal and county executive meetings of CPC and government leaders • Implementing agencies: assessors and entrusted operating units • Supervising agencies: municipal and county governments and their
		Notice of the General Office of the National Development and Reform Commission on Issuing the Outline for the Preparation of the Chapter on the Social Stability Risk Assessment of Major Fixed Asset Investment Projects and Assessment Report (Interim) (NDRCOI [2013] No.428)	
		Opinions on Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions in the New Situation (ZBF [2021] No.11)	
		Notice on Issuing Implementation Measures for Social Stability Risk Assessment for Major Decisions of Gansu Provincial Water Resources Department (GWBF [2013] No.170)	
		Notice of Gansu Provincial Committee and Government on Issuing Several Implementation Measures for Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions under New Circumstances (GBF [2021] No.33)	
		Interim Regulations on Major Administrative Decision-making Procedures (2019.9.1)	
		Regulations on Letters and Visits (2022.2.25)	
		Regulation on Guaranteeing Wage Payment for Migrant Workers (2020.1.7)	
		Notice of the Ministry of Agriculture and Rural Affairs General Office on the Training of High-quality Farmers in 2022 (2022.4.15)	
		Notice of Gansu Provincial DARA on Implementation Plan	

Social impacts and risks	Bank policy principle	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
		for Training of High-quality Farmers in 2022 (GNCF [2022] No.33)	grass-root agencies (e.g., township governments)
Tangible culture heritage	Principle #2: cultural heritage conservation	Cultural Relics Protection Law (2017 Amendment)	State: National Cultural Heritage Administration Gansu: provincial, municipal and county cultural relic protection authorities
		Regulations for the Implementation of the Cultural Relics Protection Law (2017)	
		Regulations on the Protection of Cultural Relics in Gansu Province (Sept. 23 2005)	
Public and worker safety	Principle #3: labor and occupational health	Civil Code of the People's Republic of China (2021.1)	Public and workers' security State: Ministry of Emergency Management Gansu: emergency management department and competent authorities at provincial, municipal and county level, production and operation entities, associations, work safety technical supporting agencies Health of the public and occupational groups State: National Health Commission (HC) Gansu: provincial, municipal and county HCs, ARABs, AHVMBs, MSAs, occupational diseases prevention and treatment agencies, occupational health technical service agencies, occupational health inspection and diagnosis agencies Labor management State: Ministry of Human Resources and Social Security (MHRSS), All-China Federation of Trade Unions Gansu: provincial, municipal and county federations of trade unions, and industrial unions; trade unions of enterprises and public institutions
		The Labor Law of the People's Republic of China (2018.12.29)	
		Work Safety Law of the People's Republic of China (2021.6)	
		Law of the People's Republic of China on the Prevention and Control of Occupational Diseases (2018.12)	
		Guidelines on the Prevention and Control of Occupational Diseases for Employers (2010.8)	
		Occupational Health and Safety Management Systems—Requirements with Guidance for Use (2018.3)	
		Classification and Catalogue of Occupational Diseases (2013)	
		Catalogue for the Classified Management of Occupational Disease Hazards and Risks of Construction Projects (2021.3.12)	
		Law of the People's Republic of China on the Prevention and Control of Infectious Diseases (2013.6.29)	
		Public Security Administration Punishment Law of the People's Republic of China (2012.10.26)	
		Notice on Strengthening AIDS Prevention and Control Work in the Construction Industry (2005.12.14)	
		Special Rules on the Labor Protection of Female Employees (Decree No.619 of the State Council) (2012.5)	
		Notice on the Issuance of the National Plan for Occupational Diseases Prevention and Control (2021-2025) (NHC [2021] No. 39)	
		Regulations on Work-related Injury Insurance (2010.12.20)	
		Implementation Measures for Regulations on Labor Protection of Female Employees of Gansu Province (2002.7.9)	
		Regulations on Prohibition of the Use of Child Labor (2002.12.1)	
		Gansu Province "14th Five-Year Plan for Occupational Diseases Prevention and Control" (GWF [2022] No.36)	
		Stock-breeding Law of the People's Republic of China (2022.10.20)	
		Law of the People's Republic of China on Animal Epidemic Prevention (2021.1.22)	
		Food Safety Law of the People's Republic of China (2021.4.29)	
		Law of the People's Republic of China on Quality and Safety of Agricultural Products (2022.9.2)	
		Law on the Prevention and Treatment of Infectious Diseases (2020)	
		Emergency Response Law of the People's Republic of China (2007.11.1)	
		Regulations on the Prevention and Control of Geological Disasters (2004.3.1)	
		Regulations on the Defense against Meteorological	

Social impacts and risks	Bank policy principle	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
		Disasters (1 April 2010.4.1)	
		Regulations of the People's Republic of China on Flood Control (2005.7.15)	
		Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters (2009.5.1)	
Land acquisition, restriction on land use and resettlement	Principle #4: land acquisition, livelihood restoration and public participation	Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects (2017)	Land acquisition and temporary land use (TLU) State: Ministry of Natural Resources (MNR) Gansu: provincial, municipal and county governments, and natural resources authorities
		Land Administration Law (2020.1)	
		Regulations for the Implementation of the Land Administration Law (2021 Amendment)	Facility agriculture land use (FALU): State: Ministry of Natural Resources (MNR), Ministry of Agricultural and Rural Affairs (MARA) Gansu: NRBs and ARABs at provincial, municipal and county level, and township governments
		Notice of the Ministry of Natural Resources on Regulating Temporary Land Use Management (MNR [2021] No.2)	
		Guidelines on Improving the Compensation and Resettlement System for Land Acquisition (MLR [2004] No.238)	Land use right transfer (LURT): State: MARA Gansu: provincial, municipal and county agriculture and rural affairs authorities, township governments
		Notice on Doing a Good Job in Employment Training and Social Security for Land-expropriated Farmers (SCO [2006] No.29)	
		Notice of the Ministry of Labor and Social Security, and the Ministry of Land and Resources on Doing a Substantially Good Job in Social Security for Land-expropriated Farmers (MLSS [2007] No.14)	Livelihood restoration State: MHRSS Gansu: provincial, municipal and county human resources and social security authorities, county and township governments, community committees, village committees
		Guidelines of The General Office of the State Council on Scientific Greening (GBF [2021] No.19)	
		Guiding Opinions of the General Office of the CPC Central Committee and the State Council on the Overall Delineation and Implementation of the Three Control Lines in National Spatial Planning (TZ [2019] No. 48)	
		Notice of MNR, MARA and NFGA on Issues concerning Strict Control of Cultivated Land Usage (MNR [2021] No.166)	
		Measures for the Administration of the Land Use Right Transfer of Rural Land (Decree 2021 No.1 of MARA)	
		Notice of MNR, MEE and NFGA on Strengthening the Management of Ecological Protection Red Line (Trial) (MNR [2022] 142)	
		Circular of the MNR and MARA on Issues Related to the Management of Facility Agricultural Land (ZRZG [2019] No. 4)	
		Implementation Opinions of the CPC Gansu Provincial Committee and Provincial Government on Strengthening Protection of Cultivated Land and Improving Occupation and Compensation Balance (GF [2018] No. 5)	
		Notice of Gansu DNR, DARA and FGB on Issues Relating to Strict Use Control of Cultivated Land (GZF [2022] No. 42)	
		Notice of Gansu DARA on Strengthening Management of Rural Land Operation Right Transfer (2021.7.23)	
		Notice of Gansu DNR and DARA on Strengthening the Management of Agricultural Land for Facilities (2020.4.1)	
Note of the People's Government of Gansu Province on Issuing the Standard of Block Compensation Land Price on Farmland Acquisition (GZF [2023] No.55)			
Notice on Implementing MNR Requirements on Further Strengthening Temporary Land Use Administration (GZZ [2021] No.81)			

Social impacts and risks	Bank policy principle	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
		Implementation Measures for Land-lost Farmers to Participate in Residents' Basic Endowment Insurance in Gansu Province (GZF [2018] No.18)	
Ethnic minorities and vulnerable groups	Principle #5: ethnic minorities and vulnerable groups	Constitution (2018 Amendment)	Ethnic minorities State: National Ethnic Affairs Commission Gansu: provincial, municipal and county ethnic affairs departments Women State: All-China Women's Federation Gansu: women's federations at different levels Children Functional authorities of governments at or above the county level, township governments, sub-district offices, community committees, village committees
		Law of the People's Republic of China on Regional National Autonomy (2001 Amendment)	
		Several Provisions of the State Council on the Implementation of the Regional National Autonomy Law (2005.5)	
		Notice of the State Council on Issuing the 13 th Five-year Plan for Promoting the Development of Minority Areas and Smaller Ethnic Minorities (SC [2016] No.79)	
		Law of the People's Republic of China on the Protection of Women's Rights and Interests (2022.10.30 Amendment)	
		Law of the Peoples Republic of China on the Protection of Minors (2020.10.17)	
		Opinions on Reforming and Improving the Social Assistance System (ZBF [2020] No.18)	
		Several Provisions on the Implementation of Regional Ethnic Autonomy Law in Gansu Province (2006.6.1)	
		Gansu Province "14th Five-Year Plan" and "14th Five-Year Plan" for Progress in National Solidarity (2021)	
		Implementation Measures of Gansu Province for the Law of the People's Republic of China on the Protection of Women's Rights and Interests (2007.9.27)	
		The 14th Five-Year Plan of Gansu Province for the Development of Civil Affairs (2021.10)	
		Plan of Gansu Province for Women's Development (2021-2030) (GZF [2021] No.91)	
		Plan of Gansu Province for Children's Development (2021-2030) (GZF [2021] No.91)	
		Notice of Gansu Provincial General Office of the CPC Central Committee and Government on Issuing Measures for the Reform and Improvement of the Social Assistance System (GBF [2021] No.5)	

5.2 Assessment of Social Regulations and Policies

132. China's legal framework consists of the following: 1) laws and regulations promulgated by the National People's Congress and the State Council; 2) regulations, standards and technical specifications promulgated by ministries and commissions; and 3) regulations promulgated by local people's congresses and governments. In general, regulations, standards and policies on land acquisition and resettlement (LAR), ethnic minority development, labor rights, public participation and consultation, grievance redress, etc. have been promulgated and implemented at the national, provincial, municipal and county levels to systematically manage potential social risks and impacts in the PforR lifecycle.

133. Appendix 3 compares the Bank policy with the applicable social management regulations. This section compares the relevant social management regulations with the Bank policy based on the core principles and elements, then identifies gaps in social regulations and policies where applicable and proposes actions and recommendations for improvement.

5.2.1 Core Principle #1: Sustainable social risks management system³⁴

134. Core Principle #1 includes two elements, both are relevant to social regulations and policies. The consistency analysis is summarized as follows.

Element 1: The legal framework and management agencies can direct social assessment adequately at the PforR Program level.

135. **Social stability risk assessment (SSRA):** The Chinese government uses SSRA as a tool to systematically manage the substantial social risks and impacts that may be involved in major projects, policies and reforms, and mitigates and manages social impacts actively by establishing and implementing a whole SSRA system, so as to promote scientific decision-making, and sustainable Program and social development.

- National development and reform committee (NDRC) promulgated the Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects in 2012, stating that the project organization shall investigate and analyze social stability risks when conducting preparatory work, collect opinions from relevant people, identify risks, risk possibilities and risk impacts, and propose prevention and mitigation measures, and social stability risk ratings after such measures are taken.
- The General Office of the State Council promulgated the Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) in 2012, requiring that an SSRA shall be conducted on major decisions, projects and policies.
- In April 2019, the State Council has issued the Interim Regulations on Procedures for Making Major Administrative Decisions, which require that for the implementation of major administrative decisions that may adversely affect social stability, public security and other aspects, the decision-making contractor or other unit responsible for risk assessment should organize an assessment of the controllability of risks in the draft decision. Major administrative decisions include: 1) the development of public services, market regulation, social management, environmental protection and other aspects of major public policies and measures; 2) the development of economic and social development and other aspects of important planning; 3) the decision to implement in the administrative region of the major public construction projects; 4) the decision on economic and social development has a significant impact on the public interest or the public's immediate interests, and other important matters. etc.
- In February, 2021, the General Office of the CPC Central Committee and the General Office of the State Council released the Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances, requiring that an SSRA shall be carried out on major decisions including those on major construction projects. It specifies the contents, methods, procedures and management of SSRA, and application of SSRA results, and underlines that the contents of SSRA are integral to the Program's feasibility study report (FSR) and application reports.
- The Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) promulgated by the General Office of the State Council in 2012 was succeeded by the Notice on Issuing Implementation Measures for Social Stability Risk Assessment for Major Decisions of Gansu Provincial Water Resources Department (GWBF [2013] No.170), specifying requirements for the implementation of SSRA in Gansu Province. In December, 2021, it was superseded by the Notice of Gansu Provincial Committee and Government on Issuing Several Implementation Measures for Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions under New Circumstances (GBF [2021] No.33), which particularly stipulates the contents, methods, procedures, management, application of results and implementation of mitigation measures of SSRA for major decisions in Gansu Province.
- The Land Administration Law (effective from 1 January, 2020) requires that an SSRA shall be conducted before land acquisition and house demolition. In the SSRA, the social stability risk status of land acquisition shall be comprehensively studied and judged, risks shall be determined, and risk prevention measures and disposal plans shall be put forward. The SSRA shall be participated in by

³⁴ Chapter 5 of this report quotes the information related to social system analysis in the core principles and elements in the PforR ESSA Guidance for a consistent comparative analysis.

the rural collective economic organizations and their members, villagers committees and other interested parties whose land has been acquired, and the assessment result is an important basis of applying for land acquisition.

136. **Assessment:** SSRA is an important procedural requirement in project application and feasibility study. Relevant policies, mechanisms, standards, and management procedures have been formulated and implemented at the national, Gansu provincial level to regulate SSRA. It is learned through the due diligence and assessment that the related municipal and county authorities take the SSRA seriously, the conclusions and risk ratings of SSRA are the key reference for the governments in their decision-making, and relevant authorities are requested to track the mitigation measures implementation progress and effects during the project implementation. Therefore, the social regulations and policies are generally consistent with Element 1.

Element 2: Incorporate recognized elements of good practice in E&S assessment and management, including six aspects.

137. According to the social risk screening results (Appendix 2), the consistency of social impact management system at national, provincial level of Gansu and Elements 2 and 5 is analyzed below.

138. **(i) Early screening:** During site selection and feasibility study of related projects, the relevant authorities (e.g., NRB, cultural heritage administration bureau (CHAB)) shall be coordinated to conduct a joint survey, and risks and impacts screening. For example, the Measures for the Administration of the Pre-review on the Use of Land for Construction Projects (2017), and the Land Administration Law (effective from January 1, 2020) require that screening be conducted so that the construction project complies with the overall spatial planning of national land and avoids any acquisition of basic farmland. The Cultural Relics Protection Law (2017 Revision) requires that a cultural relic survey shall be conducted before project site selection to minimize impacts on cultural relics. The Regulations on the Prevention and Control of Geologic Disasters (2004) require that the project area shall not be selected in disaster areas, and related disaster prevention and control requirements should be defined through a geological disaster assessment to reduce public security risks if any project to be constructed in areas liable to geological disasters. The Opinions on Strengthening the Construction of a Social Stability Risk Assessment Mechanism for Major Decisions under New Circumstances require that social stability risk assessments should be conducted for all major decisions that are directly related to the immediate interests of the people and that are likely to have a greater impact on social stability, public security and other aspects, and that investigations should be conducted into the legitimacy, reasonableness, feasibility and controllability of the implementation of the major decision-making matters; the scope of the investigations should cover the stakeholders of the areas involved; the opinions of the people and the stakeholders should be fully listened to and comprehensively collected; and the risk factors that may give rise to social stability should be comprehensively and consistently identified and analyzed.

139. **(ii) Alternatives:** Options should be compared and analyzed during project site selection and feasibility study. The Administrative License Law of the People's Republic of China, and the Decision of the State Council on Establishing Administrative License for Administrative Review and Approval Items Really Necessary to Be Retained require that the feasibility study of a project shall compare E&S impacts of different options to avoid or minimize local negative E&S impacts. The Notice of the General Office of the National Development and Reform Commission on Issuing the Outline for the Preparation of the Chapter on the Social Stability Risk Analysis of Major Fixed Asset Investment Projects and Assessment Report (Interim) (2013) also stipulates, the project implementation units (PIUs) and assessment agencies shall obtain the support of the local governments and related departments, grass-root organizations, Non-governmental Organizations (NGOs), etc. for the proposed project in terms of planning, land acquisition, house demolition, compensation, resettlement, environmental protection, etc., thereby selecting an option with acceptable social stability risks.

140. **(iii) Developing measures to avoid, minimize or mitigate social impacts:** The Notice on Issuing the Outline for the Preparation of the Chapter on the Social Stability Risk Analysis of Major Fixed Asset Investment Projects and Assessment Report (Interim) (2013) requires that plans and measures shall be proposed to prevent and mitigate risks. The Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) stipulate, if the assessment report thinks that if a high risk is present, a decision of non-implementation shall be made, or a decision be made after the plan is adjusted or the risk level reduced; if an intermediate risk is present, a decision of implementation shall be made after effective risk prevention and mitigation measures are taken; if a low risk is present, a decision of implementation may be made, but actions in terms of explanation and persuasion to the people affected shall be conducted, and appeals of relevant people handled properly. SSRA shall also address the legitimacy,

rationality, feasibility and controllability of the proposed activities, and require that an appropriate contingency plan be developed.

141 . **(iv) Clear articulation of institutional responsibilities and resources to support implementation of plans:** The Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) requires for assessment that if the reasonability, fairness and timeliness of related compensation, resettlement or assistance measures offered are assessed, and if appropriate manpower, material and financial resources are available.

142 . **(v) Public participation, information disclosure and grievance redress mechanism (GRM):** The SSRA policies of Gansu require that public consultation be conducted with all stakeholders involved in a plan to collect their opinions and suggestions, including advice, needs and directions of public opinion on the proposed project from mass, online, mobile, and other emerging media. The Notice on Issuing the Outline for the Preparation of the Chapter on the Social Stability Risk Analysis of Major Fixed Asset Investment Projects and Assessment Report (Interim) (2013) stipulates, the PIUs and assessment agencies shall obtain supports of the local governments and related departments, grass-root organizations, NGOs, etc. for the proposed project, and the completeness of public participation shall be assessed as well, including if the procedural requirements of public participation, expert consultation and information disclosure are all well implemented. For any project involving land acquisition and house demolition, the Land Administration Law (effective from January 1, 2020) requires that the government at or above the county level shall be the responsible party of announcement and implementation. Before land application submission, detailed measurement survey (DMS) and SSRA should be conducted and the key information, e.g. the purpose and boundary of land acquisition, current status, compensation rate, resettlement mode, social security, etc. should be disclosed in the township (town), village and village group for at least 30 days, to collect comments from the affected rural collective economic organization and its members, village committee and other stakeholders. Upon completion of the relevant preliminary work, local people's governments at or above the county level may apply for land acquisition, and make land acquisition announcement and implementation upon approval in accordance with legal procedures. Whereas parties concerned refuse to accept the decisions, the disputes may be brought to the courts within 30 days after the notification on the decision is received. No party shall change the status quo of the land before the disputes over ownership and use right are settled. Whereas a construction unit or individual refuse to accept the administrative punishment decisions on dismantling the buildings and other facilities, it may bring the case to the court within 15 days starting from the day when the decision is received. The MNR issued the Standard Guidelines for Grass-root Government Affairs Disclosure in Rural Collective Land Acquisition on June 27, 2019, making detailed provisions on project land acquisition policies, and the scope, time limit and channels of disclosure during preparation, approval and implementation. The Provisional Regulations on Major Administrative Decision-making Procedures require that decision-making contractors should adopt ways to facilitate public participation in order to fully listen to opinions, such as symposiums, hearings, on-site visits, written solicitations, public solicitations to the community, questionnaires, public opinion surveys, and other methods.

143 . **Assessment:** Social impact assessment and planning are carried out by means of SSRA in China and Gansu Province. There are clear mechanisms for impact early-stage screening, option comparison, and arrangements for measure defining on social risks (e.g., LAR) management. The regulations also defined the responsible agencies to manage specific impacts. The regulatory framework on managing social stability risks and related issues, such as the laws and regulations on land acquisition and house demolition, have provided detailed procedures and requirements on information disclosure, public participation, and grievance redress. Therefore, the social regulations and policies are generally consistent with Element 2.

5.2.2 Core Principle #2: Cultural heritage management system

144 . Elements 3 and 4 under Core Principle #2 define management requirements for natural habitats, which were discussed in Section 3. Only the consistency with Element 5 is assessed here.

Element 5: Take into account potential adverse effects on physical cultural property and provide adequate measures to avoid, minimize, or mitigate such effects.

145 . **Cultural relic protection:** The project activities in Gansu will involve civil works, such as grassland protection and ecological restoration, construction and upgrading of livestock breeding facilities, livestock and poultry manure treatment and resource utilization facilities, straw forage processing facilities, and construction of disease prevention and control facilities, etc. According to the social impact screening (**Error! Reference**

source not found.), the PforR Program is unlikely to affect any tangible culture heritage. China has established and implemented a sound cultural relic protection law to assess and manage potential cultural relic impacts of construction activities. The Cultural Relics Protection Law requires that no construction works or operations such as blasting, drilling and digging is allowed within the area of historical and cultural protection site. At the time of site selection for a construction project, location where immovable cultural relics located should try to be avoided. If a project is needed to be implemented, other construction projects within the protection scope should be approved by the people's government which approved and announced the cultural relic protection unit; construction projects within the construction control zone need to obtain the consent of the cultural relic administrative department, be submitted to the urban-rural development department for approval, and shall not pollute such relic and its environment, and any activities that may affect its safety and environment are not allowed to conduct. Any such facilities already existed in the area shall be disposed within a specific time limit. Before launching a large-scale infrastructure construction project, the construction unit shall firstly apply to the provincial cultural relic authority for arranging a unit engaged in archaeological excavations to conduct archeological investigation at places where cultural relics may be buried underground within the project area.

146 . **Assessment:** The Cultural Relics Protection Law and the Regulations for the Implementation of the Cultural Relics Protection Law gives full consideration to potential impacts on cultural relics to protect cultural relics from construction. The regulations on tangible cultural heritage protection of China and Gansu is consistent with Element 5.

5.2.3 Core Principle #3: Public and worker safety management system

147 . Element 7 under Core Principle #3 defines requirements for toxic and hazardous substances, and pest control related to environmental system analysis. The consistency with the public security and labor safety requirements in Elements 6 and 8 is assessed here.

Element 6: Promote adequate community, individual, and worker health, safety, and security through the safe design, construction, operation, and maintenance of Program activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial works as appropriate.

148 . **Worker safety management:** Project activities will inevitably involve risks to the health and safety of workers, including the health and safety management of contractors' workers during the construction of grassland protection and ecological restoration projects, construction and upgrading of animal husbandry facilities, livestock and poultry manure treatment and resource utilization facilities, straw forage processing facilities, and disease prevention and control facilities, as well as the management of occupational health of the relevant facilities' operating units and their employees. China has established and implemented a system to manage labor safety:

- The Labor Law (2018 Amendment), and the Civil Code make provisions on child labor, discrimination, forced labor, etc. For example, Article 15 of the Labor Law stipulates that the employer be banned from recruiting juveniles under the age of 16 special protection shall be given to female and underage (above 16 years old and below 18 years old) workers and Article 94 regulates that if an employer illegally recruits persons under the age of 16, the labor administrative department in charge shall command a correction and a fine. If the case is very serious, the license of the employer shall be revoked. In addition, the Regulations on Prohibition of the Use of Child Labor (issued by the State Council in 2002) stipulates that (i) Article 2: no employer, including state organs, social organizations, enterprises, institutions, private non-enterprise units, or individual industrial and commercial households shall hire individuals under the age of 16. It is forbidden for any entity or individual to introduce employment opportunities to individuals under the age of 16. Individuals under the age of 16 are prohibited from starting individual business operations; (ii) Article 6: if an employer uses child labor, the labor administrative authorities shall impose a penalty according to a standard of 5,000 yuan per month for each employed child laborer. The MHRSS categorizes the use of child labor as illegal employment in the Regulations on One-time Compensation for Injury or Death of Employees Due to Illegal Employment (2011). The Labor Law also stipulates that workers shall not be discriminated against on the basis of ethnic group, race, gender or religion; women shall enjoy the same employment rights as men; forced labor shall be prohibited.
- The Work Safety Law requires that production and operation entities must establish a sound work safety responsibility system, and relevant rules and regulations, and improve work safety conditions

to ensure work safety. It also requires that reporting information be disclosed to the public for public supervision.

- The Civil Code requires that work safety and health facilities of construction, reconstruction and expansion works shall be designed, constructed and put into operation along with these works.
- The Regulations on Work-related Injury Insurance (2010 Amendment) requires that enterprises, public institutions, social organizations, private non enterprise units, foundations, law firms, accounting firms, and other organizations, as well as individual industrial and commercial households with employed workers (hereinafter referred to as employers) within the territory of the People's Republic of China shall participate in work-related injury insurance in accordance with the provisions of the Regulations and pay work-related injury insurance premiums for all employees or employees of the unit.
- The Occupational Health and Safety Management Systems—Requirements with Guidance for Use promulgated in 2020 require that enterprises shall identify and control potential occupational health and safety hazards systematically, and eliminate safety accidents at the beginning, thereby protecting worker's health and safety. Enterprises may apply for "occupational health and safety management system" certification, and establish a normative management system, realizing the source identification and whole-process control of hazards, and continual improvement. However, the occupational health and safety management system is not a mandatory requirement.

149 . **Community and public health and safety management:** In addition to the general occupational health and safety regulations applicable to all construction and production activities, specific management policies have been established in China for community health and safety management during the construction and operation of livestock farming facilities. For example, the revised Stock-breeding Law of the People's Republic of China in October 2022 stipulates that the site selection of stock-breeding farms should comply with national regulations, keeping a considerable distance from drinking water sources, animal slaughter and processing facilities, and animal and animal product markets, with a minimum distance of at least 500 meters from other livestock farms or villages. The amended Law of the People's Republic of China on Animal Epidemic Prevention in January 2021 mandates that livestock farms, quarantine facilities, slaughter and processing plants (yards), harmless treatment plants, and places for isolating infected animals must meet the animal epidemic prevention conditions specified by the administrative authorities of agricultural and rural affairs under the State Council. Regarding the potential spread of infectious diseases, security risks and sexual exploitation and abuse and sexual harassment (SEA/SH) risks emanating from significant foreign/outside labor force deployment for physical activities, China has set up a set of regulations and policies, including the Law of the People's Republic of China on the Prevention and Control of Infectious Diseases, requiring that for external migrant workers who may pose a risk of infectious disease transmission, health checks and registration are required. Necessary preventive measures, such as vaccination and isolation treatment, should be implemented to prevent the spread of infectious diseases. The Notice on Strengthening AIDS Prevention and Control Work in the Construction Industry (2005) requires construction administrative authorities across regions to widely conduct AIDS prevention and control knowledge training for migrant workers. It emphasizes the improvement of the working environment and living conditions of on-site construction workers and the implementation of preventive immunization measures for AIDS and other statutory infectious diseases. The notice further calls for organizing pre-employment and routine health examinations for migrant workers. The Public Security Administration Punishment Law of the People's Republic of China requires that the construction unit shall proceed identity registration of migrant workers at local government and implement stringent measures against illegal activities and crimes to ensure social stability. Article 1010 of the Civil Code of PRC stipulates that a person who has been sexually harassed again will by another person through oral words, written language, images, physical acts, or the like, has the right request the actor to bear civil liability in accordance with law. Article 40 of the Law of the People's Republic of China on the Protection of Women's Rights and Interests stipulates that sexual harassment against women is prohibited and victims have the right to file complaints with relevant units. Article 11 of the "Special Rules on the Labor Protection of Female Employees stipulates that employers in the workplace must prevent and stop sexual harassment against female workers. Furthermore, a series of departmental and local regulations, such as the Provisions on the Site Management of Construction Projects, have further refined the requirements for safety, environmental protection and social security at construction sites, as well as the corresponding legal responsibilities.

150 . In terms of the slaughter and animal products processing phases, the revised "Food Safety Law of the People's Republic of China" in April 2021 requires that (i) food producers and operators must establish and implement a health management system for employees. Individuals suffering from diseases that jeopardize food safety, as specified by the health administrative department of the State Council, are prohibited from

engaging in work involving direct contact with food intended for human consumption. (ii) personnel involved in work directly related to food for human consumption must undergo an annual health check. They are allowed to work only after obtaining a health certificate. Additionally, the law also establishes fundamental principles and systems for the quality and safety of agricultural products, including standards, monitoring, and traceability. Among which, specific requirements and management measures for the use of feed and veterinary drugs and agricultural product quality and safety in the livestock farming industry chain are outlined. Furthermore, the amended Law of the People's Republic of China on Quality and Safety of Agricultural Products in September 2022, regulates that agricultural product production enterprises and cooperatives should issue a commitment certificate for the quality of its agricultural products and those entities or individual who sell these edible agricultural products must be responsible for the content of the commitment certificate. Entities engaged in the testing of agricultural product quality and safety must obtain a qualification certificate issued through assessment before conducting such testing activities.

151 . **Labor GRM:** specified provisions on labor GRM are included in the Labor Law. It's stipulated that when labour disputes arise between the employers and workers, the parties concerned may, according to law, apply for mediation or arbitration or bring the case before the people's court or may settle them through consultation. When a labour dispute arises, the parties concerned may apply with the labour dispute mediation committee of their own unit for mediation. Should the mediation fail and one of the parties concerned demands arbitration, it may apply with the labour disputes arbitration committee for arbitration. One of the parties concerned may also file an application directly with the labour disputes arbitration committee for arbitration. If the arbitration ruling is not accepted, the case may be brought before the people's court. A labour disputes mediation committee may be set up in an employer's unit. The labour disputes mediation committee shall be made up of representatives of workers, the employer and the trade union. The labour disputes arbitration committee shall be made up of representatives of labour administrative department, trade union at the same level and the employer. One of the parties to a dispute demanding arbitration should file a written application with the labour disputes arbitration committee within 60 days starting from the date when the dispute arises. The arbitration ruling should usually be awarded within 60days starting from the date when the application for arbitration is received. If no exception is taken with the arbitration ruling, the parties concerned shall comply. If a party to a labour dispute refuses to accept the ruling, the party may bring the case before the people's court within 15 days starting from the date when the arbitration award is received. If a party refuses to bring the case before the people's court and refuses to implement the arbitration ruling within the time limited prescribed by law, the other party may apply with the people's court for compulsory implementation. If a dispute arises from the conclusion of a collective contract and the parties concerned fail to settle the disputes through consultation, the labour administrative department of the local people's government may organize all quarters for settlement. If a dispute arising from the performance of a collective contract and yet the parties concerned fail to settle it through consultation, they may apply for arbitration with the labour disputes arbitration committee. If the arbitration ruling is not accepted, the case may be brought before the people's court within 15 days starting from the date when the arbitration award is received.

152 . **Assessment:** A whole set of regulations on workers in livestock farming industry and the public's health and safety has been established in China and Gansu to fully protect worker and the public's rights. The regulations also require that appropriate safety measures, inspections or remedial works should be taken during design, construction and operation to ensure community, individual and worker safety. The regulations on public and labor safety are consistent with Element 6.

Element 8: Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR Program activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or affected by climate events.

153 . **Disaster safety management mechanisms:** The PforR is located in Gansu, and may involve areas prone to natural disasters, such as snowstorms, floods, lightning and landslides. During implementation, the flow of migrant workers may lead to disease spreading. For urban-rural planning and major project construction, the Regulations on the Defense against Meteorological Disasters require that governments at or above the county level shall fully consider meteorological factors and natural disasters and propose measures to avoid or mitigate disasters. In addition, the Regulations on the Defense against Meteorological Disasters require that lightning protectors of newly constructed, reconstructed or expanded buildings (structures), places and facilities shall be designed, constructed, and put into operation along with these works. The Regulations of the People's Republic of China on Flood Control make systematic arrangements for floods in terms of organization, flood prevention preparation and implementation, rescue, follow-up work, funding, reward, and

punishment, etc. The Regulations on the Prevention and Control of Geological Disasters make systematic arrangements for the investigation, prevention, and management of geologic disasters, such as prevention, emergency response, governance and legal liabilities. It's requested that geological disaster risk assessment shall be carried out at the feasibility study stage for the construction of projects in areas prone to geological disasters, and the assessment results shall be an integral part of the feasibility study report. Otherwise, the feasibility study report shall not be approved. The Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters requires that newly constructed, reconstructed or expanded construction works shall meet seismic design requirements, and makes specific provisions on seismic safety assessment and earthquake protection. The Law on the Prevention and Treatment of Infectious Diseases (April 2020) stipulates, governments at or above the county level shall develop and implement infectious disease prevention and control plans, and establish a prevention, treatment and supervision management system; news media shall conduct public welfare publicity on infectious disease prevention and control, and public health education.

154 . **Assessment:** The regulations on natural disaster prevention and control measures are consistent with Element 8.

5.2.4 Core Principle #4: Involuntary resettlement management system

155 . Element 9 under Core Principle #4 manages Program LAR in six aspects, all of which are related to the social regulations and policies applicable to The PforR. Consistency is analyzed as follows.

156 . **(i) Minimizing negative impacts related to land acquisition:** For example, the analysis of “early-stage impact screening” under Element 2, the Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects (2017), the Land Administration Law (effective from January 1, 2020), and the regulations on SSRA require that projects and enterprises shall utilize existing construction land, and avoid any occupation of farmland (especially permanent basic farmland) where possible, and reduce LAR impacts through design optimization, thereby reducing social stability risks. At the preparation stage, natural resources authorities will participate in the survey to confirm the land to be used for the project, and the feasibility study will compare different options for LAR impacts. The government authorities will check if the land use plan is rational during land use review and feasibility study.

157. For TLU during the project construction, it's required in the Notice of the Ministry of Natural Resources on Regulating Temporary Land Use Management (MNR [2021] No.2) that not to occupy or less occupy cultivated land as possible, and strictly control the occupation of cultivated land if it is difficult to restore after use and the original planting conditions shall be restored after the completion

158 . For the transferring of land management rights, the Measures for the Administration of the Transfer of Rural Land Management Rights (MARA, Decree No. 1, 2021) require that the transferee subject submit an application, and that the local people's government at or above the county level or the people's government of the township or township shall, in accordance with the law, organize a review and examination of the relevant functional departments, the representatives of the rural collective economic organizations, the representatives of the farmers, and the experts, etc. regarding the use of the land, the ability of the transferee subject to agricultural business, and whether the business project is in line with the food production and other industrial plans, and that the transfer of the right to manage land may not be carried out without the submission of the application for review and examination in accordance with the regulations, or if the review and examination fails.

159 . In response to the situation of facility-based agricultural land use, in 2019, the MNR issued the Notice on Issues Related to the Management of Facility-based Agricultural Land Use (ZRZG [2019] No. 4), which strictly defines the scope of facility-based agricultural land use, and clarifies the policies for supporting and regulating the land use of facilities directly used for crop cultivation and livestock, poultry, and aquaculture in agricultural production. On this basis, Gansu DNR and DARA issued the Notice on Strengthening the Management of Facility Agricultural Land Use in 2020, which requires that the land used for facility agriculture should be in line with the territorial spatial planning or the overall land use planning, the village planning and the agricultural development planning, and that, on the premise of protecting cultivated land and rationally utilizing the land, it should maximize the use of unutilized land and inefficient and idle land, and should not take up or the land should be utilized as much as possible on the premise of protecting cultivated land and rationally utilizing land. If it is necessary to occupy cultivated land, it should try to occupy poor quality cultivated land and avoid indiscriminate occupation of high-quality cultivated land, and at the same time minimize the destruction of the tillage layer through engineering, technology and other measures. The

Measures for the Implementation of the Land Management Law of the People's Republic of China in Gansu Province, which came into effect on January 1, 2022, clearly states that "the people's governments of counties (municipalities and districts) shall implement the national strategy of rural revitalization, and shall guarantee the demand for land for the development of rural industries, rural public facilities and public welfare undertakings in accordance with the law, and reserve relevant land for construction in accordance with national regulations. On the premise of conforming to the scope and scale standards for land use stipulated by the State and the province, priority may be given to arranging land for agricultural facilities directly used for crop cultivation and livestock and poultry aquaculture".

160 . Meanwhile, the MNR published the Notice of MNR, MARA and NFGA on Issues concerning Strict Control of Cultivated Land Usage (MNRP [2021] No.166) in 2021, requiring that permanent basic farmland shall not be converted into forest land, grassland, garden land and other agricultural land or agricultural facilities construction land. The annual "balance in and out" shall be carried out for any conversion of cultivated land to other agricultural land and agricultural facilities construction land, and the same amount and quality of cultivated land shall be made up by means of the consolidation of forest land, grassland, garden land, other agricultural land and agricultural facilities construction land into cultivated land. Gansu Province has been working out its own "balance in and out" plan for cultivated land occupation, for example, the Notice of the General Office of the People's Government of Gansu Province on the Issuance of Administrative Measures for Balancing the Occupancy and Compensation of Cultivated Land in Gansu Province (GZBF [2019] No. 11), and the Notice of the Gansu DNR, DARA and FGB on the Issues Relating to the Strict Control of Cultivated Land Usage (GZF [2022] No. 42), which includes the detailed implementation details of the "in and out balancing" of cultivated land.

161 . **(ii) Identifying and addressing economic and social impacts arising from land acquisition or loss of access to natural resources:** The Land Administration Law (effective from January 1, 2020) stipulates, "Owners or users of the land to be acquired shall, within the time limit specified in the announcement, go to fill the compensation registration form with holding its assets ownership certificate. The people's government at or above the county level shall organize the department concerned to estimate the relevant costs and make them fully available." The land acquisition compensation measures of Gansu make systematic arrangements for land acquisition compensation and resettlement in accordance with the Land Administration Law, including for those lacking legal title. During land acquisition, affected people shall confirm the results of DMS, and the land acquisition agency shall enter into compensation and resettlement agreements with landowners and users before submitting application for project approval. In terms of TLU, Gansu Province requires applicants to sign contracts for the TLU with the county (city) NRB or rural collective economic organizations or villagers' committees according to the land ownership. Where LURT is involved, the Measures for the Administration of the Land Use Right Transfer of Rural Land (Decree 2021 No.1 of MARA) requires that the LURT shall follow the principle of compliance, voluntariness and compensation, a LURT contract shall be signed, and the transfer income shall be paid to the land contractor. Involving the use of agricultural land for facilities, Gansu Province requires that "before the use of agricultural land for facilities, the operator shall draw up a program for the construction of facilities, which includes the name of the project, the location of the construction, the type and use of the facilities, the number, the standard and the size of the land, etc.". In addition, a whole set of grievance redress mechanisms for land acquisition compensation has been established from village or community level to townships governments' level, and/or to the county level or above. If any affected person is dissatisfied with the DMS result, and/or the compensation or resettlement, he/she may file a grievance with the village head or village committee, or with the township or county / municipal government. According to the Regulations on Letters and Visits (2022), Party committees and relevant departments of the government at or above the county level shall perform such duties as acceptance, transmitting, assigning, coordination, handling, supervision and inspection. If a complainant is dissatisfied with the results of settlement, he/she may settle the dispute through litigation to protect his/her lawful rights and interests.

162 . **(iii) Compensation and transition subsidy to be fully paid at replacement cost before land use:** The Land Administration Law (effective from January 1, 2020) defines compensation policies, rates, principles, flows, schedules, etc. for different types of land use. Article 47 stipulates, fair and reasonable compensation shall be granted for land acquisition to ensure that the living standard of the affected farmers is not reduced, and their long-term livelihoods are secured; in case of land acquisition, the land compensation fees, resettlement subsidy, and compensation fees for rural residential houses, other ground attachments, young crops, etc. shall be paid timely and fully according to the law, and social security costs for the affected farmers be disbursed accordingly; the rates of land compensation fees and resettlement subsidy for acquired agricultural land is determined based on the block comprehensive land price formulated and disclosed by

provinces, autonomous regions and municipalities, which shall be adjusted or reissued at least every three years; compensation rates for acquired land other than agricultural land, ground attachments, young crops, etc. shall be developed by provinces, autonomous regions and municipalities. For rural residential houses, fair and reasonable compensation shall be provided on the principle of compensation before relocation and residential condition improvement by such means as reallocating housing land for house construction, offering resettlement houses, or granting cash compensation, and relocation, temporary resettlement and other costs resulting from acquisition shall be compensated for in order to protect the lawful residential and property rights of rural residents.

163 . Compensation rates for land acquisition are usually adjusted every two to three years based on local economic development and market conditions in each province, city and county. For example, Gansu promulgated the Notice of the People's Government of Gansu Province on Issuing the Standard of Block Compensation Land Price on Farmland Acquisition (GZF [2023] No.55) on 3 September 2023, clarified that 60% of the block comprehensive land price is the resettlement subsidy and 40% is the land compensation fee, excluding the social security insurance subsidies for land-lost farmers as stipulated by law; for other farm land and construction land, one time of the standard shall be applied; for unused land acquired, .0.1 times of the standard shall be applied, In addition to the explicit price of grassland in pastoral areas, 0.4 times of the standard shall be applied for grassland in other non-pastoral agricultural land acquired; for state-owned farmland and construction land (got the land through allocation), refer to the compensation standard of collective land within the region; for state-owned unused land, no compensation is required. In terms of the young crops and ground attachments on collective land, specific compensation standards have been promulgated in Gansu based on their own conditions. In addition, the new Land Administration Law requires that compensation should be paid before land occupation or land use.

164 . The compensation for young crops and ground attachments affected by TLU is determined through mutual negotiation and shall be paid before construction. For LURT, both parties shall reach an agreement through equal negotiation. Any project involving extensive transfer, many households and high operating risks, a risk security fund may be established. For projects involving the transfer of land use right of the whole village (group) with a large area, a large number of rural households and higher operational risks, risk security funds may be established, and the specific amount of the fund shall be negotiated by both parties. The rent of land for agricultural facilities shall be determined by negotiation between the place of supply and the place of use.

165 . **(iv) Policy arrangements for livelihood restoration:** The Land Administration Law (2020) requires that the living standard of the affected farmers shall not be reduced, and their long-term livelihoods shall be secured. In general, five main resettlement modes are available to land-expropriated farmers: agricultural production, reemployment, equity participation, non-local resettlement (Guidelines on Improving the Compensation and Resettlement System for Land Acquisition (MLR [2004] No.238)), and endowment insurance (Article 48 of the Land Administration Law (2020), etc.). In addition to the above five modes, state policies, such as the Notice on Doing a Good Job in Employment Training and Social Security for Land-expropriated Farmers (SC [2006] No.29), also requires that local government shall establish a social security system suited to the characteristics and needs of land-expropriated farmers, secure employment training and social security funds, promote land-expropriated farmers to get employed and be incorporated into urban society, and ensure that the living standard of land-expropriated farmers is not reduced due to land acquisition, and their long-term livelihoods are secured. For eligible land-expropriated farmers, employment and startup supporting policies shall be implemented, occupational training should be further strengthened, and public employment services should be improved to promote their employment and startup. For example, according to the Notice on Implementing MNR Requirements on Further Strengthening Temporary Land Use Administration (GZZ [2021] No.81), farmers, who lost their contracted land (including pasture, grassland) due to unified land acquisition by the government, shall be covered by the social security system. The application shall be prepared by the land expropriated individuals, discussed by the rural collective economic organization or villagers' committee, primarily checked by the township (sub-district) government, reviewed by county or municipal or district level ARAB or NRB and confirmed by HRSSB. After that, the township (sub-district) government shall disclose the information within the affected rural collective economic organizations or village committees for no less than 10 days, and then submitted to county or municipal or district level government for approval and HRSSB for registration. Land-expropriated farmers who meet the conditions can choose to participate in the basic endowment insurance for urban workers or social endowment insurance for urban and rural residents on their own will, and the government provide corresponding subsidies to land-expropriated farmers. The standard of subsidy funds for land expropriation insurance is the provincial average annual salary of workers of the previous year multiplied by the proportion of land expropriated.

166 . **(v) Policy arrangements for infrastructure restoration:** For potential infrastructure impacts arising from land acquisition and house demolition, the Land Administration Law and the Regulations for the Implementation of the Land Administration Law stipulate, after the land acquisition plan is approved and announced, the county government shall organize a land details measurement survey within the range of land acquisition and disclose the results to the public for at least 30 days. Article 48 of the new Land Administration Law (2020) stipulates, “For rural residential houses, fair and reasonable compensation shall be provided on the principle of compensation before relocation and residential condition improvement,”

167 . **(vi) Information disclosure, public participation and informed decision-making:** Public participation runs through the whole project lifecycle and is an important measure to ensure the success of LAR activities. The MNR issued the Standard Guidelines for Grass-root Government Affairs Disclosure in Rural Collective Land Acquisition in June 2019, sorting out matters to be disclosed, regulating the disclosure process, and improving modes of disclosure to protect the people’s rights of information, participation, expression, and supervision practically. The main objectives of public participation at different stages of LAR are as follows:

- During option argumentation and comparison, the project owner and design agency shall conduct meaningful consultation with affected people and other stakeholders and improve the engineering measures and determine the range of land use based on feedback, thereby evading sensitive objects and minimizing LAR impacts.
- Participation at the DMS stage includes land acquisition announcement, DMS publicity, participation in the DMS, and confirmation, disclosure and review of DMS results.
- At the SSRA stage, meaningful consultation will be conducted with stakeholders to assess potential major social risks arising from land acquisition and house demolition, including other major risks that are not directly related to but may materially affect the project.
- During the drafting of the compensation plan, the plan should be disclosed to collect comments from affected people, and a public hearing held when necessary.
- Public participation at the implementation stage mainly includes production and life resettlement, and effective information disclosure and consultation should be conducted in the allocation and use of compensation.

168 . If TLU is involved, the TLU approval should be disclosed to be public as requested according to the Notice of the Ministry of Natural Resources on Regulating Temporary Land Use Management (MNRP [2021] No.2). On such as basis, it is requested in Gansu province that the county (district) level NRB shall disclose the TLU information through relevant government websites. If LURT is involved, the LURT agreement shall be reached on the basis of equality and voluntariness. If TLU of land for agricultural facilities involved, after consensus on the construction plan and land-use conditions, announcements will be made to the public through the village and group public affairs and other forms of publicity for a period of not less than 10 days, and if there are no objections at the end of the period of notification, the rural collective economic organizations and operators will sign a land-use agreement.

169 . **Assessment:** China has established a complete legal framework and policy system on land acquisition, TLU, LURT, house demolition, resettlement, and compensation. The implementation of rural land acquisition and house demolition is based mainly on the Land Administration Law (2020), the measures for the implementation of the Land Administration Law of Gansu, and relevant compensation rates. Urban house demolition is based mainly on the Regulations on the Expropriation of Houses on State-owned Land and Compensation (2011). The Land Administration Law that was amended on August 26, 2019, and came into effect on January 1, 2020 has substantively coordinated the practices of land acquisition and house demolition in rural and urban areas. The new Land Administration Law defines the scope of land acquisition for public interests, strengthens preparatory risk management for land acquisition, and emphasizes information disclosure and public participation (including public hearings) in land acquisition and house demolition, and requires that an agreement shall be signed with the landowner and user before application for land approval, and compensation and resettlement funds should be arranged in advance. The new law requires that land acquisition compensation rates shall be determined based on block comprehensive land prices, and adjusted or reissued at least every three years, and that fair and reasonable compensation shall be granted for land acquisition to ensure that the living standard of the affected farmers is not reduced. Therefore, the new Land Administration Law will protect the rights and interests of affected persons, ensure sustainable livelihoods and

improve living conditions more effectively. In general, the LAR regulations are consistent with the requirements of Core Principle #4 and Element 9.

5.2.5 Core Principle #5: Management system for ethnic minorities and vulnerable groups

170 . The three elements under Core Principle #5 are related to the social regulations system of The PforR Program. Consistency is analyzed below.

Element 10: Undertake meaningful consultations if the ethnic minorities are potentially affected (positively or negatively), to determine whether there is broad community support for the PforR Program activities.

171 . **Policy requirements for ethnic minority consultation:** Gansu is a province with multi-ethnic minorities concentrated communities. There are 55 ethnic minorities in Gansu Province. According to the seventh national census in 2020, there were 2.6564 million ethnic minority people in Gansu Province, accounting for 10.62% of the total population, mainly include 10 long dwelling ethnic minorities like Hui, Tibetan, Dongxiang, Bao'an, Yugu, etc. The project area involves one ethnic autonomous county, the Sunan Yugur Autonomous County, 8 ethnic minority-concentrated townships and 137 ethnic minority-concentrated villages. The Law of the People's Republic of China on Regional National Autonomy stipulates, in dealing with special issues concerning the various nationalities within its area, the organ of self-government of a national autonomous area must conduct full consultation with their representatives and respect their opinions; the organ of self-government of a national autonomous area shall guarantee that citizens of the various nationalities in the area enjoy the rights of citizens prescribed in the Constitution and shall educate them in the need to perform their duties as citizens. On this legal basis, when minority residents are affected similarly by land acquisition and house demolition, they will not only enjoy the same rights as citizens, but also be subject to free, prior and informed consultation in a culturally appropriate manner organized by local governments when necessary. In addition, the organ of self-government of a national autonomous area shall make independent arrangements for local capital construction projects in the light of local financial, physical and other conditions within the framework of national plans. When developing resources or carrying out construction projects in a national autonomy area, the state shall protect its interests, make arrangements favorable to its economic development, and local minority residents' production and livelihoods. On the other hand, according to the regulations on SSRA, at the feasibility study stage of a project, the PIU (or through an entrusted specialized agency) shall conduct a SSRA to identify impacts, propose mitigation measures, and prepare a SSRA report; if a government at or above the county level applies for land acquisition, a current status survey and a SSRA should be conducted. Each municipal or county government in Gansu has formulated local policies according to the applicable regulations, such as the Notice of Gansu Provincial Committee and Government on Issuing Several Implementation Measures for Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions under New Circumstances (GBF [2021] No.33) promulgated by Gansu Province in December 2021.

172 . **Assessment:** Comprehensive ethnic minority development policies have been established in China and Gansu to respect minority opinions, ensure ethnic equality, and respect minority customs. The requisition or occupation of land belonging to ethnic minorities shall be subject to the consent of each household and a written agreement shall be signed. Therefore, the existing management system for ethnic minorities is consistent with Core Principle #5 and Element 10.

Element 11: Ensure that ethnic minorities can participate in devising opportunities to benefit from exploitation of customary resources and indigenous knowledge, the latter to include the consent of ethnic minorities.

173 . **Policy basis for ethnic minority development:** The Law of the People's Republic of China on Regional National Autonomy stipulates, when developing resources or carrying out construction in a national autonomy area, the state shall protect its interests, make arrangements favorable to its economic development, and local minority residents' production and livelihoods, and include major ecological balance and environmental protection projects in the local national economic and social development plan. From the perspective of public consultation, the Interim Regulations on Major Administrative Decision-making Procedures stipulate, when developing major economic and social development plans, and determining major local infrastructure projects, prior public participation shall be conducted, and also make systematic provisions on the schedule, form, process, recording, etc. of public participation. Based on the above regulations, provincial level management measures for ethnic minority programs have been prepared in Gansu Province.

For example, the 13th Five-Year Plan for Economic and Social Development of Ethnic Minorities-concentrated Areas of Gansu province was promulgated in the 13th Five Year Plan Period, setting objectives in the area of accelerating infrastructure construction, poverty alleviation, social programs, ecological construction, industrial restructuring, etc., increasing capital investment to ethnic minority-concentrated areas, providing more preferential policies and financial support and solving the shortages in their development. In terms of the ethnic minorities-concentrated township, the Management Measures for Development Funds of Ethnic Townships in Gansu Province (GZF [2020] No.11) was issued to provide special development fund for promoting the economic and social development of ethnic townships, improving ethnic minorities' living conditions, supporting industrial development and increasing residents' income.

174 . **Assessment:** Both central and Gansu governments make top-down systematic planning and arrangement in ethnic minority development to create job opportunities for minority residents and improve their living standard and it's required to conduct prior public consultation for relevant plans and projects in accordance with the Interim Regulations on Major Administrative Decision- making Procedures. This is consistent with Core Principle #5 and Element 11.

Element 12: Give attention to groups vulnerable to hardship or discrimination, including, as relevant, the poor, the disabled, women and children, the elderly, ethnic minorities, racial groups, or other marginalized groups; and if necessary, take special measures to promote equitable access to PforR Program benefits

175 . **Poverty and poverty reduction systems:** China has achieved an all-round poverty alleviation in 2020 and currently main focus on those who are at risk of returning to poverty due to various reasons, like household who just have been out of poverty, general farmers, and those in difficulties due to sudden increasing of rigid expenditure or reduce of income caused by emergencies. Correspondingly, the General Office of the CPC Central Committee and the State Council issued the Opinions on Reforming and Improving the Social Assistance System (ZBF [2020] No. 18) in August 2020, requiring to develop the social assistance system in a coordinated manner to consolidate our achievements in poverty alleviation, and safeguarding the bottom line of people's basic livelihood. Minimum living subsidy shall be provided to the family whose per capita income of family members living together is lower than the local minimum standard of living security and conforms to the provisions of property status. Assistance and support subsidies for persons in extreme hardship shall be provided to elderly people, disabled people and minors in urban and rural areas who are unable to work, have no source of income, and cannot appoint the obligatory persons to support and raise them, or whose statutory obligatory persons are incapable of performing their obligations. At the same time, corresponding medical, housing, education, employment and other special social assistance shall be provided according to the actual needs. For example, special social assistance such as medical care, housing, education and employment or other necessary assistance measures shall be provided to low-income families that do not qualify for subsistence allowances or subsistence allowances and families that have serious difficulties in basic living due to high rigid expenditures. Emergency social assistance shall be provided to families or individuals suffering from emergencies, accidental injuries, serious diseases, affected by public health emergencies such as infectious diseases, or other special reasons that lead to temporary difficulties in basic life, as well as people who are temporarily stranded or homeless. In case of natural disasters, assistance shall be given to the victims. On this basis, Gansu Province issued the Several Measures on Reforming and Improving the Social Assistance System (GBF (2021) No. 5). Gansu Province annually publishes urban and rural minimum living subsidies (MLS) and special hardship support standards and policies, which are uniformly formulated by the local governments at or above the county level, with standards varying from place to place. In 2023, the average urban MLS standard is CNY 8,400 yuan per year per person, and the average rural MLS standard is CNY 5,580 yuan per year per person, the subsidy for people in extreme hardship in urban and rural area is CNY 10,920 and 7,260 yuan respectively.

176 . The 14th Five-Year Plan of Civil Affairs of Gansu Province (2021.10.15) set 15 key development targets, 12 specified fields, 24 engineering projects and 89 key tasks in the aspects of basic livelihood guarantee, basic social services, elderly care services, etc., covering social assistance, elderly care services, children's welfare, grassroots social governance, basic social services, social organization development, philanthropy and social work, regional name management services, and so on. The Plan requires that by 2025: the annual growth rate of MLS in rural areas shall be no lower than that of per capita consumption expenditure of the previous year; the MLS standard in urban and rural areas accounts for more than 75% of that in urban areas; living subsidies are provided to all financially-challenged disabled people; nursing care allowances are offered to all severely disabled people; trans-provincial marriage registration is fully achieved; all vagrants and beggars with known identity information are returned to their homes; nonprofit cremains burying (storage) facilities

are available in all counties; at least 55% of beds in elderly care institutions meet requirements for nursing care; comprehensive elderly care institutions are accessible in 50% of townships (sub-districts); minor protection centers are available in 50% of townships (sub-districts); the number of social service professionals stands at 24,000; volunteer service centers account for 80% of comprehensive community service facilities; the area of comprehensive community service facilities accessible in urban and rural areas by every 100 residents tops 30 square meters; and the number of full-time employees of social organizations reaches 300,000.

177 . **Protection of women's rights and interests:** As for gender equality and women's development, the Law of the People's Republic of China on the Protection of Women's Rights and Interests (2018 Revision) requires that women's lawful rights and interests shall be protected, and gender equality promoted, and defines the state shall ensure that women enjoy the same labor and social security rights as men. For example, this law stipulates that woman enjoy the same rights as men in rural land contracting, distribution of the income of collective economic organizations, compensation for land acquisition or land occupation, and housing plot land, etc. No organization or individual is allowed to infringe on women's rights in the rural collective economic organizations due to non-married, marriage, divorce, widowers and non-male household. In September 2021, the State Council promulgated the Outline for Women's Development in China (2021-2030), specifies the following goals: gender equality is practically put in place as a basic state policy to advance innovation in systems and mechanisms of promoting gender equality and women's all-round development shall be improved; women shall be entitled to all-round, whole-lifecycle health services to improve their health level continually; women enjoy equal rights of education to continually improve their quality and ability; women enjoy equal economic rights to steadily improve their economic status; women enjoy equal political rights to gradually improve their participation in the management of state and economic, cultural and social affairs. Women enjoy multi-level and sustainable social security as equals, and their treatment level be steadily improved. The system of laws and regulations supporting family development be more completed to widely promote the new fashion of socialist family civilization. The concept of gender equality should be greater popularized to improve the development environment for women. A sounder legal framework is established to effectively protect women's legitimate rights and interests; and women's sense of gain, happiness and security is increased significantly.

178 . The Plan of Gansu Province for Women's Development (2021-2030) (2021.12.30) sets 75 targets and 93 strategical methods in eight aspects, including health, education, economy, participation in decision making and administration, social security, family development, environment, and law.

179 . **Child protection:** The Law of the Peoples Republic of China on the Protection of Minors (2020 Amendment) stipulates that minors shall enjoy all rights equally in accordance with the law, regardless of the nationality, race, gender, household registration, occupation, religious belief, education level, family status, physical and mental health of themselves or their parents or other guardians. The law makes detailed provisions on family, school, social, network, government and judicial protection for the minors. The Plan of Gansu Province for Children's Development (2021-2030) (2021.12.30) sets 70 targets and 89 strategical methods in seven aspects, including health, safety, education, welfare, family, environment, and legal protection.

180. **Assessment:** Based on the above analysis, there are systematic plans, measures and institutional arrangements on the development, and rights and interest protection of vulnerable groups, women and children in China and Gansu, ensuring that all relevant groups participate in the project equally, and benefit from projects fairly. Therefore, the policies on vulnerable groups and women are consistent with Core Principle #5 and Element 12.

5.2.6 Core Principle #6: Social conflict management system

181. **Element 13** requires that conflict risks be considered, including distributional equity and cultural sensitiveness, and is not related to the PforR in general. In addition, based on the analysis of Core Principle #1 and Element 1, China manages social risks and impacts comprehensively through social stability risk analysis. Therefore, the PforR will not exacerbate local social conflict.

5.3 Assessment of Social Management Mechanism and Capacity

182. As shown in **Table 5-1**, the provincial, municipal, and county (district) authorities in Shandong and Gansu have established clear management agencies for different social risks, which have been equipped with qualified staff. This section analyzes the organizational setup of the social management system and assesses if

the organizational settings are rational and needs for improvement. It is discussed through two levels: First, the organizational settings of each social management system; second, the rationality and capacity of each social management system against the requirements at Elements 1 and 2 under Core Principle #1. Where gaps identified, actions and recommendations will be proposed. This section will assess the roles and responsibilities of each administrative agency, working regulations/procedures, staffing and capacity, cross-departmental coordination, etc. through adequate consultation. It is observed the number of staffing is tens of staff for each provincial and county (district) level department. The staff number of departments are not exactly the same in different areas and decided through official documents and procedures to allocate/maintain human and other resources for meeting the dynamic demand. For different social risks, the corresponding organizations or organizational groups are assessed and analyzed in this section. **Table 4-1 in Appendix 4** sets out detailed stakeholder analysis conclusions, including the responsibilities of different government authorities involved in different types of activities, and results of authority interviews under the social management system.

5.3.1 Social risk assessment management agencies³⁵

- **Provincial DRC:** approving major fixed asset investment projects based on social stability risks and other documents relevant (attaching the SSRA report and review comments when applying for FSR approval).
- **Provincial PLAC:** coordinating, supervising and directing SSRA. Instructing the subjects of decision making and assessment to convene different political and legal affairs committees, and authorities for cross-regional / departmental projects.
- **Municipal/county (district) government:** conducting county-wide social stability risk assessment, decision-making, implementation, and supervision, and it is where the SSRA report is discussed and approved in the meeting of the standing committee of the municipal/county CPC, the meeting of government executive committee, or the meeting of the Party and the government leadership team.
- **Municipal/county (district) PLACs:** reviewing and registering the SSRA report, and supervising the work of the subjects of assessment.
- **Assessor:** conducting or appointing an independent appraisal agency to conduct SSRA, and implementing SSRA measures.
- **Independent appraisal agency:** attending SSRA training and reviews organized by NDRC and getting registered at the provincial PLAC in advance.

183 . For example, the **PLAC of Minle County** has established a social stability maintenance office (2 staff), responsible for directing subjects of assessment to conduct SSRA on major decisions and construction projects, providing policy advice and guidance, and supervising subjects of assessment to implement risk mitigation measures which formulated in the SSRA reports, coordinating and handling of major issues which may affect social stability, preventing and resolving social conflicts and incidents with potential social stability risks, investigating contradictions, regularly analyzing social stability situations and stability maintenance evaluation mechanism, studying and putting forward countermeasures. The assessment subjects and third-party institutions shall carry out SSRA of major decisions according to the requirements of related laws and regulations, and accurately classify the risk levels of projects. The assessment subject shall review the assessment report and procedures strictly, and issue a letter of application for record after confirming the risk assessment results, sign it by the person in charge of the local unit and submit it to the Municipal Political and Legal Committee for record. After reviewing the content of SSRA, the Municipal Political and Legal Committee shall make a record and issue a letter of confirmation. Staff of the Municipal Political and Legal Committee shall participate in at least 2 capacity trainings per year organized by the municipal or provincial government.

184. **Assessment:** The state and local regulations clearly stipulate responsibilities for the agencies concerned and their manning quotas, and the related Gansu Provincial PLAC requires that staff concerned should attend relevant training. In addition, sufficient budgets should be available during SSRA to ensure that relevant measures can be implemented, although the project risk control measures are implemented by the

³⁵This section summarizes the responsibilities of the relevant agencies related to program social risk management, which may not be all responsibilities of the government authorities concerned.

assessor and supervised by the municipal and county authorities, various authorities are involved for different social risks. For example, the natural resources authority supervises land acquisition and house demolition compensation and resettlement only, while for other social risks, such as public participation in site selection, is supervised by another agency, like the PCPBs. Therefore, the SSRA mechanism of Gansu is effective, and consistent with the Bank policy.

5.3.2 Cultural relics protection agencies

- **CHAB under the provincial culture and tourism department:** coordinating and directing cultural relics investigation, protection and utilization, archeology, and major project implementation through the cultural relics protection division.
- **Municipal/county (district) government:** responsible for the territorial management of cultural relic safety.
- **Municipal/county (district) cultural relics authority under the culture and tourism bureau (CTB):** coordinating and directing cultural relic protection, conducting administrative law enforcement for cultural relics, assisting the competent authority in reviewing projects involving cultural relic protection, supporting the superior cultural relic and archeological authority in conducting cultural relic investigation and exploration, and archeological excavation. where any cultural relic burial area cannot be avoided in site selection, the provincial CHAB shall organize the archeological excavation agency to conduct cultural relic investigation and exploration at the expense of the project owner.
- **Municipal / county (district) DRC:** organizing feasibility study review for construction projects and ensuring that the project design does not affect cultural relics.
- **Planning division of natural resources authority:** assisting the cultural relic authority in defining the range of cultural relic protection and construction control area during local planning and project site selection.

185 . **Assessment:** For potential adverse impacts on material cultural heritage, there are state and local regulations to avoid or minimize such impacts. The existing state and local authorities are capable to manage cultural relic risks effectively, consistent with Core Principle #2.

5.3.3 Land use management agencies

- **Land use approval agencies:**
 - **MNR:** reviewing project-specific permanent basic farmland and ecological conservation redline acquisition, supervising the management of national land.
 - **Provincial DNR:** reviewing project-specific permanent acquisition of collective land (except permanent basic farmland and ecological conservation redline);
 - **Municipal and County NRBs:** accepting land use applications for construction projects, directing the PIUs to prepare necessary land approval application documents, and submitting such documents to the competent government.
 - **People' Government at and above the County (District) Level:** approving land use within corresponding authority.
- **Land acquisition**
 - **County (District) or above NRBs or land acquisition and house demolition authority:** implementing the applicable laws and regulations, drafting the local overall spatial planning of national land, directing land users to submit land use application materials, and reviewing and submitting such materials to the higher level authority; establishing a leading group for land acquisition and house demolition compensation and resettlement; entrusting the land and house expropriation department to take the lead, and local township people's governments and communities to cooperate with the third party to carry out SSRA and survey and mapping, especially land status survey, household visits, policy publicity, resettlement measures discussion, grievance handling, etc.; disclosing relevant land acquisition pre-announcement; drafting a compensation and resettlement

plan at the municipal or county level; organizing public hearings on land acquisition and house demolition; signing land acquisition agreements with affected persons or entities, and disclosing land acquisition announcement, conducting land acquisition, compensation and resettlement after obtaining approval.

- **FGBs at or above the county (district) level:** review and approval of grassland requisition and occupation matters in accordance with the authority hierarchy.
- **Township government and village committee:** participating in and supporting land acquisition and house demolition, especially DMS, door-to-door visit, policies publicity and communication, resettlement measure discussion, grievance redress, etc.
- **County (District)-level HRSSBs:** calculating of subsidy funds for the social insurance of land-lost farmers, processing the participation and payment of insurance premiums, approving and disbursing the pension, and doing a good job of managing the subsidy funds for land-lost farmers.
- **Third-party appraisal agency:** when house demolishing involved, a qualified real estate appraisal agency will be appointed by the affected village or community under the direction of the natural resources authority to appraise house compensation rates, where relevant.
- **Financial bureau:** preparing necessary budgetary funds according to the resettlement budget submitted by the NRBs and land user.
- **Auditing bureau:** auditing resettlement costs regularly according to the statutory process and giving opinions.

186 . **For example, in Guazhou County,** the Natural Resources Affairs Centre under the county NRB is responsible for collective land acquisition. Regarding to land and attachment acquisition for a specific project, the Centre forms a land acquisition management team jointly with the competent authority, township government and village committee, the team will include 5-10 persons, can be more if the project is bigger sized. If house demolition is involved, the Centre will engage a third-party real estate appraisal agency to appraise the house value and issue an appraisal report. The whole LAR procedure is: the PIU entrusts the land acquisition task to NRB first, then the NRB issues a land acquisition announcement, conducts a detailed measurement survey and appraisal, starts the SSRA, discloses the DMS results and verifies per requests received, and finally re-discloses the DMS results. The land compensation and resettlement plan would also be disclosed at the stage. After that, pre-land acquisition agreement negotiation and signature can be initiated. When all the above activities completed, submits relevant documents to Provincial DNR for approval. After getting approval, the PIU disburses funds to the county FB (land compensation fee), and HRSSB (endowment insurance) according to the agreement for further disbursement to the affected households, and the HRSSB will proceed endowment insurance for the affected households.

■ **Temporary land use**

- **National and provincial DNRs, and DARAs:** studying and formulating TLU management policies, deploying TLU supervision and random inspection.
- **Municipal NRBs, and ARABs:** examining, approving and managing the TLU when cultivated land and permanent basic farmland involved.
- **County (District) NRBs, and ARABs:** responsible for the approval and routine supervision of other TLU without cultivated land and permanent basic farmland being involved, supervising the land users to perform land restoration according to law, uploading TLU related information and documents like approvals, agreements, location, photos of current land status onto the TLU data system, disclosing the TLU information to the public and timely updating the TLU restoration information in the system.
- **FGBs at or above the county (district) level:** review and approval of grassland requisition and occupation matters in accordance with the authority hierarchy.
- **Rural collective economic organization:** supervise whether the TLU applicants use the land and fulfill the responsibility of land restoration in accordance with the agreement.

■ **Land use right transfer**

- **MARA:** directing nationwide LURT and contract management.

- **ARABs at or above the county (district) level:** establishing sound operating rules, conducting policy inquiry, information disclosure, contract signing, transaction attestation, equity appraisal, financing guarantee, file management, etc. in relation to LURT; establishing a shared rural land contracting information platform for national, provincial, municipal and county interconnection in accordance with unified standards and technical specifications, improving the management level of LURT, directing the work of township rural land contracting management authorities, encouraging transferees to develop crop production, guiding enterprises to develop modern cultivation and stockbreeding suitable for large-scale operation, guiding the transferee to develop moderately operation scale in light of the natural and economic condition, the transfer of rural labor force, the level of agricultural mechanization and other factors, establishing a hierarchical qualification and project review system, and a risk prevention system, strengthening in-process and subsequent regulation, and correcting and punishing illegal acts timely.
- **Township governments:** responsible for LURT and contract management, including providing a sample contract to both parties and directing them to sign the contract, correcting violations in the contract, establishing LURT ledger to timely and accurately record the transfer status and keeping LURT records and documents properly.

187. **For example, in Jingchuan County,** land transfer supervision and management are handled by the county-level Agricultural Operation Service Center (with a total of 18 staff members) and the townships that have set up land transfer workstations (1-2 staff members); and in Sunan County, land transfer supervision and management is handled by the county-level Rural Property Rights Trading Center's Rural Operation Guidance Station (6 staff members). Other programs are similar in land transfer supervision and management institutions. Land transfer area of less than 100mu is filed by the village level, between 100-500mu is filed by the township agricultural economic station or agricultural service center, and more than 500mu is filed by the county-level land transfer center or agricultural business service center. Personnel of land transfer management organizations in each county will participate in at least three trainings on capacity building each year, including at least one each in the province, city and county, and the main trainings will include land rights confirmation, arbitration and mediation of conflicts and disputes related to land ownership or compensation.

■ **Agricultural facility land use**

- **MNR and provincial DNR, MARA and provincial DARA:** responsible for the supervision of agricultural land for facilities through various technical means;
- **Municipal NRB and ARABs:** responsible for the supervision and guidance for the management of facility agricultural land, establish and improve the inspection system, fully implement the supervision of facility agricultural land, and report the information on the filing of facility agricultural land to the provincial-level competent departments on an annual basis;
- **County (District) NRBs and ARABs:** responsible for the daily supervision of agricultural land for facilities, scientifically guiding the siting of facility construction in accordance with the requirements for the economical and intensive use of land, determining whether to destroy the tillage layer, accepting land reclamation, and submitting the filing information to the state (municipal) competent departments on a quarterly basis. Among them, the competent department of natural resources will promptly review and carry out the uploading of maps into the database on the regulatory platform for agricultural land for facilities after receiving the approval documents for agricultural land for facilities and related filing information provided by the townships. The annual change survey of land for facility agricultural land shall be done in accordance with the regulations; the county-level departments in charge of agriculture and rural areas shall strengthen the guidance on the standards of facility agricultural land. If it is necessary to occupy general farmland for facility agricultural land, it should be included in the county-level annual farmland "in and out of balance" overall program approved in accordance with the regulations and then implemented;
- **Township government:** organize for village collective economic organizations and operators, under the guidance of county-level departments in charge of natural resources and departments in charge of agriculture and rural areas, and based on the overall spatial planning of national land, agricultural development planning and village planning, under the premise of protecting cultivated land and rationally utilizing the land, make good use of all kinds of policies on natural resources, agriculture and forestry, and in accordance with the facility construction plan, apply comprehensive measures to reasonably determine the location and scope of land for facility construction. Organize rural

collective economic organizations and operators to select sites for facility agricultural land and guide the completion of the transfer of land contract management rights and the signing of land use agreements, track the entire process of facility agricultural land construction, supervise the implementation of land reclamation and return work, and disclose information on facility agricultural land. The record information is remitted to the county-level competent department of natural resources and the competent department of agriculture and rural areas on a monthly basis. Where contracted cultivated land is converted to other land types such as forest land, the township people's government puts forward opinions on the implementation of cultivated land "in and out balance"; upon approval, the contracting party is guided to re-sign or change the certificate of ownership of the contracted land with the contracted farmers in accordance with the law;

- **Rural collective economic organization:** supervise whether the applicants use the land and fulfill the responsibility of land restoration in accordance with the agreement and disclose land use information in the village.

188 . **In Jingchuan County, for example**, the Project Coordination Service Center (2 persons) and the Planning Office (5 persons) of the NRB are responsible for the day-to-day management of FALU. The applicant for land use submits an application for siting of FALU to the township government, and based on the land space planning, rural development planning, and village planning, the township government will complete on-site survey and area mapping to determine the location and scope of the FALU within five working days under the premise of protecting cultivated land, intensive and economical land use, and complying with the policy on FALU; after the initial review by the township government. After passing, the county NRB will take the lead in organizing the relevant departments to jointly review the on-site survey; after passing the joint review, the township government will guide the production operator to sign the agreement, fill out the application form for the FALU, and make a public announcement on the bulletin boards of the townships and villages for a public notice date of not less than 10 days; after the expiration of the public notice period, the township government will issue a filing notification letter to the county natural resources office. After the filing is completed, the township government shall carry out the uploading of maps into the database within 5 working days, and remit the filing information to the county-level NRB and ARAB at the end of each month, respectively. The township government fulfills the first responsibility for post-approval supervision.

189 . **Assessment:** China has established a sophisticated organizational structure for land acquisition, TLU, LURT and FALU from county level to township and village level, leading by the county NRB and ARAB, and with responsibilities clearly defined for every organization involved. The Land Administration Law requires that land occupied or used for projects shall be compensated for before occupation or use, and the finance and audit bureaus shall review the budget regularly. In addition, during the survey, it's found that the competent authorities implement or participate in LAR, TLU, LURT, compensation and resettlement for several different types of projects every year, and they have rich experience to implement and manage land acquisition and compensation, consistent with Core Principle #4.

■ **Livelihood restoration**

- Livelihood restoration measures are flexible, including agricultural resettlement, reemployment, shares resettlement with assets, relocation, social security, etc., which involve different management agencies. Specifically, **agricultural resettlement** is usually conducted by the village collective economic organization based on the land status and villagers opinions, which may decide to allocate undistributed collective land to households affected by land acquisition, or conduct land reallocation if no undistributed collective land is available; **reemployment** is chosen by affected households based on their own needs, where free training and employment support are provided by the county labor and employment authority; or local government coordinate employment positions, such as forest rangers, cleaners and other public welfare positions, according to the degree of impact on the farmers; or the land use applicants give priority to the affected people who are willing to be employed when they need to use labor during the construction and operation of the project; **shares resettlement** is determined by the PIU in consultation with affected households; **relocation** is requested by the affected households for new land farming at other areas, and decided by local governments after assess and consult with the host village collective economic organizations; **social security for land-expropriated farmers** is implemented by the county HRSSB with the support of the land acquisition affected township government and village / community committee. Livelihood restoration will be discussed in detail in Section 5.4.4, including case sharing, based on field visit and consultation results.

190 . Assessment: Livelihood restoration is part of LAR. Different livelihood restoration measures involve different implementing agencies, such as village collectives, social security authorities, employment authorities, and enterprises, which have clearly defined responsibilities. Public finance supports the implementation of these measures. In addition, different livelihood restoration measures have different funding sources. For example, in terms of shares resettlement, it is determined through the agreement reached between the land user and the village committee or villagers. Livelihood restoration measures can be well implemented in practice due to rich experience and sound regulations on measures, organizational structures and fund arrangements, consistent with Element 9 under Core Principle #4.

5.3.4 Public and worker health and safety, and emergency management agencies

■ Worker health and safety (at the project construction and operation phase)

- **National Health Commission and Disease Control and Prevention Center (DCPC):** preparing, adjusting, and disclosing classes and catalogs of occupational diseases, and supervising national occupational disease prevention and treatment.
- **Provincial Health Commission:** formulating and implementing policies and standards related to occupational health and radiological health, carrying out monitoring of key occupational diseases, special investigations, occupational health risk assessment and health management of occupational populations, and coordinating the prevention and control of occupational diseases.
- **Provincial Prevention and Treatment Institute for Occupational Diseases or DCPC:** providing technical guidance, training and quality control for the province's prevention and control work.
- **Provincial AHVMB:** responsible for the management of key zoonotic diseases; coordinating the work of safe production in the animal husbandry and veterinary medicine industry.
- **Municipal / County (District) HCs:** supervising, managing, and implementing the work related to local occupational health prevention and treatment, and ensuring that workers receive occupational health and safety rights according to law.
- **Municipal / County (District) animal husbandry and veterinary institutions:** responsible for the arrangement and implementation of matters relating to the physical health examination of animal husbandry and farming practitioners within their jurisdiction.
- **Municipal / County (District) HRSSBs:** managing work-related injury insurance, establishing a tripartite mechanism in labor relations with trade unions and enterprises to solve relevant major issues.
- **Occupational health examination agency:** obtaining a practicing license and registering in the provincial health commission, where medical practitioner and nurses for registered types and items of occupational health review should be equipped and at least one licensed physician with occupational disease diagnosis qualification is required.
- **Trade union:** directing workers and employers to enter into and perform employment contracts and establish a collective bargaining mechanism to protect the lawful rights and interests of workers.
- **Women's federation:** protecting the legal rights and interests of women and children and providing assistance to aggrieved women and children.

191 . HCs of different counties have a similar organizational structure. For example, in Jingchuan County, three organizations under the county HC are responsible for health management: 1) health and wellness affairs center of HC; 2) integrated health law enforcement brigade; 3) disease prevention and control center. At the same time, public medical institutions qualified for occupational health examination are set up in Jingchuan County, including County Hospital. The county DCPC, township hospital and community health service centers provide support.

- **Health and Wellness Affairs Center (5 staff):** formulating and implementing policies and standards related to occupational health and radiation health in the county; carrying out key occupational disease monitoring, special investigation, occupational health risk assessment and

working groups health management; coordinating and carrying out the prevention and control of occupational diseases; coordinating with the County ARAB in arranging for staff of livestock stations in townships, countywide rural animal vaccinators and large farming households to participate in blood tests for brucellosis.

- **Integrated health law enforcement brigade** (4 staff members): supervising and inspecting the implementation of management measures by the employer where occupational-disease-inductive factors exist; supervising and managing the occupational-health inspection institutions, occupational-disease-diagnosis institutions and occupational-health technical service institutions within the jurisdiction; investigating and handling occupational-disease-inductive accidents and occupational health violations; and publicizing laws and regulations on occupational health management.
 - **DCPC** (5 staff): classifying corporate hazards into five categories (pneumoconiosis, chemical, biological, physical, and radioactive factors), and providing necessary technical supports to enterprises annually; for animal husbandry, responsible for operational training, technical guidance, serological testing, data collection, data analysis and summary writing for project work.
 - **Jingchuan County People's Hospital**: providing pre-job, on-the-job and post-job occupational health examinations for relevant workers of enterprises with toxic and hazardous factors and taking measures accordingly. If there is a health problem, the enterprise and the employee shall be informed in writing and the enterprise shall not set the post, or if the employee is sick on the post, the enterprise shall transfer his position and provide treatment.
 - **Township (central) health centers and community health service centers**: responsible for serum collection, business training and publicity and health education for the key populations of brucellosis under their jurisdiction.
- **Public health and safety (food safety)**
- **Provincial, municipal and county (district) AHVMBs**: supervision and management of breeding livestock and poultry production, slaughter and other aspects of quality and safety.
 - **Provincial, municipal and county (district) MSAs**: regular research and deployment of food safety supervision of food safety of edible agricultural products, to carry out publicity on food safety laws and regulations, popularize the basic knowledge of food safety, law enforcement and supervision of agricultural and livestock products production, processing, circulation, and to carry out sampling and testing of food safety.
 - **County (district) inspection and quarantine centers**: the quality and safety of agricultural and livestock products for testing.

192 . For brucellosis, anthrax and other zoonotic diseases involved in the livestock breeding industry under the project, a joint prevention and control mechanism among the departments of health, animal husbandry and veterinary medicine has been established at the provincial level, which exchanges information on brucellosis on a monthly basis, analyzes and studies the form of epidemic regularly, and carries out surveys and analyses jointly in key prevalent areas, etc.

■ **Safe production management**

- **Production / operation entity**: The key leader, e.g., the legal person, is responsible comprehensively for its work safety, formulate and implement the work safety system, set up work safety management organizations and personnel, and the trade union shall supervise work safety.
- **Hazardous chemicals production / operation / transportation / storage agency**: setting up a work safety management agency or appointing full-time work safety staff.
- **Emergency Management authority**: instructing local departments to respond to emergencies cases such as production safety and natural disasters, and to work on comprehensive disaster prevention, reduction, and response, being responsible for the comprehensive supervision and administration of production safety.

193 . In Gansu Province, a work safety mechanism is in place, featuring the leadership of production and operation entities, participation of by workers, supervision by the government and public, and self-discipline by the industry. Safety education covers all people, and work safety trainings are provided to each level of government official.

■ **Natural disaster emergency management**

- **Provincial disaster reduction commission:** It is the natural disaster rescue and response agency of the provincial government, established at the provincial emergency management department, with members being the provincial emergency management department, finance department, and other competent authorities, such as the ARABs, WRBs, NRBs, Housing and Urban-Rural Development Bureaus, EEBs, statistics bureau, meteorological bureau, earthquake bureau, HCs, broadcast and television bureau, red cross, communication bureau, and fire brigade. The provincial disaster early warning and response system is launched based on assessment, and after it is launched, the provincial disaster reduction commission starts its working mechanism immediately to organize and coordinate emergency warning and response activities, such as post-disaster relief and reconstruction, including transitional living assistance, winter and spring relief, recovery and reconstruction of damaged houses, etc.
- **Municipal / county (district) government:** When a natural disaster occurs, the local disaster early warning and response system is launched based on assessment. For natural disasters that may affect several areas, the provincial disaster reduction office will make an analysis and assessment based on the disaster monitoring and forecast information provided by relevant departments and the natural conditions, population and social and economic conditions of relevant areas, and decide to launch a provincial-level

194 . **Assessment:** For occupational health and safety of workers, public health and safety, management of work safety during project construction and operation, and management of natural disasters, Gansu Province has defined departmental responsibilities, and can manage sudden natural disasters effectively, consistent with Element 8 under Core Principle #3.

5.3.5 Ethnic affairs management agencies

- **Provincial ethnic affair commission (EAC):** Studying and proposing policy recommendations to strengthen the common consciousness of the Chinese nation and enhance the construction of the Chinese national community. Responsible for the coordination mechanism related to ethnic work, providing guidance on and supervising the implementation of the decisions and arrangements of the central and provincial government on ethnic work, as well as the implementation of ethnic laws and regulations by various regions and departments. Researching and proposing policy recommendations to advance the modernization of the governance system and capacity of ethnic affairs, promote the construction of a common spiritual homeland for the Chinese nation, promote interaction, communication, and integration among various ethnic groups, advance all ethnic groups toward socialist modernization and organize demonstration and creation work in the field of ethnic relations. Participating in the formulation and implementation of plans related to the economic and social development of ethnic regions and minority groups, promoting the construction of the public service system for ethnic affairs, and conducting comprehensive assessments of economic and social development in ethnic regions. Researching and proposing policy recommendations to coordinate ethnic relations and handling major matters in ethnic relations. Participating in formulating plans for talent training of ethnic minorities.
- **Municipal / prefecture EACs:** implementing policies, laws and regulations, and provincial and municipal / prefecture decisions on ethnic work; drafting local regulations on ethnic affairs; formulating relevant policies and plans, and supervising their implementation; directing and improving the institutional construction for the implementation of national regional autonomy to protect the lawful rights and interests of minority residents; drafting development plans for minority officials and talents, and studying, managing and directing relevant policy advices.

- **County EACs:** identifying county minority population, applying for ethnic minority development projects, cultivating minority officials and developing the annual target indicators for minority officials training.

195. **Assessment:** Departmental responsibilities for economic and social development, and minority official training in ethnic concentrated areas have been defined at the provincial, municipal and county levels, consistent with Core Principle #5.

5.3.6 Vulnerable group protection agencies

196. Rural revitalization bureau(RRB)s, women’s federations, civil affairs bureau (CAB)s and federations for people with disabilities have been established, and poverty reduction and vulnerable groups supporting policies and plans developed at the national, provincial and county levels to plan and manage low-income people assistance, women and children’s development, the disabled, left-behind old people and minors, etc. in a unified manner. All authorities have appropriate staff and budgets, and evaluation mechanism for their performance.

- **Civil Affairs Bureau:** managing affairs related to old people and left-behind (distressed) minors needing assistance, including conducting survey, statistics, filing and recording, establishing a local management mechanism for left-behind (distressed) minors and a local old-age care mechanism, and securing funds.
- **Women’s federation:** uniting and mobilizing women to play a unique role in society and family, and protecting the lawful rights and interests of women and children, providing assistance to aggrieved women and children, promoting the implementation of gender equality policies, etc.
- **Federation for People with Disabilities:** protecting the civil rights of the disabled, collecting their opinions and needs, mobilizing the public to understand, respect, care for and support them, and eliminate discrimination and obstacles, assisting the government in developing outlines for disabled persons’ programs, promoting their rehabilitation, education, employment, rights protection, culture, sports, social security, information technology application, disability prevention, etc. and improving the environment and conditions for their accessing to social life.
- **Rural Revitalization Bureau:** strengthening poverty alleviation outcomes, and preventing re-improvement or additional impoverishment.
- **Township government and village/community committee:** A supervisor of left-behind (distressed) minors is appointed at the township level and a director for minor’s affairs is assigned at the village/community committee level, and a regional old age care service center and a women’s federation office established at the township level, and a children’s director appointed, and an old age care service station and women’s federation chairman mechanism established in each village / community.

197. The work on the elderly and minors left behind is carried out by the "Elderly Affairs Section", "Elderly Children Section" or "Social Affairs and Social Welfare Unit" in each county, which is staffed with 2-6 employees. The Zhengning County CAB, for example, has set up a "Social Affairs and Social Welfare Unit", whose responsibilities include: undertaking welfare work for the elderly, formulating plans, policies and standards for the county's welfare subsidy system for the elderly and the construction of a pension service system, coordinating the promotion of care services for the elderly left behind in rural areas, and guiding the city's pension services, welfare for the elderly, and the management of rescue and support organizations for special-needs people; undertaking the issuance of living subsidies for orphans and de facto unsupported children, registration of adoptions, and carrying out all kinds of activities to care for left-behind children in difficult situations, as well as taking the lead in the protection of minors in the county. In addition, the Zhengning County CAB has set up a leading group for the protection of minors, a rescue and protection center for minors, and implemented social work services for the care and protection of children in difficulty and left-behind children. The CAB cooperates with township governments and communities/villages in its implementation, and all 10 townships and 94 villages/communities in the county are staffed with at least one person responsible for the affairs of left-behind elders and minors, such as children's supervisors and children's directors.

198. The work of consolidating and expanding the achievements of poverty eradication and rural

revitalization in all counties is usually carried out by RRB, which has in general 15 to 30 staff. All counties have set up coordinating bodies such as "rural revitalization strategy commands" at the county and municipal governments, consisting of key leaders of the county government and various government departments, and from time to time organize and convene industry sectoral consultation meetings according to the needs of the work and the situation of the advancement of the work. For example, Lingtai County has set up the county party secretary and county governor as the dual leader of the county implementation of the rural revitalization strategy leading group, set up by the county party committee, the county government leaders in charge of the rural industry revitalization, talent revitalization, cultural revitalization, ecological revitalization and revitalization of the organization of the 5 major task force and comprehensive coordination, financial security, bottom-up protection, fixed-point assistance and other 12 working groups, constructed the leading group to grasp the overall work of the task force, working class It has constructed a responsibility system in which the leading group has a comprehensive grasp, the working task force, and the split-heads grasp, and formed a work system in which the upper and lower levels are linked, and each takes its own responsibility and pays attention to the work system with the township rural revitalization workstations, village committees, and officials stationed in the villages.

199. **Assessment:** There are competent authorities to manage different vulnerable groups in China, such as poverty reduction offices or RRBs for poverty issues, Federation for people with disabilities, CABs for the left-behind old people and minors, and women's federations for women. These authorities are flexibly staffed and may engage extra staff as necessary in addition to their regular staff and secured with funds. Therefore, the state and local governments have clearly defined responsibilities in the rights protection of vulnerable groups, and their management capacity complies with Core Principle #5.

5.4 Assessment of the Social Effects of Implementation

200. The assessment of social effects of implementation is mainly based on the information obtained from sample cities/counties and the investigation and understanding of the social risk management process and effects of previous similar typical activities. During the site survey, interviews were conducted with key stakeholders in all the counties visited to cross-examine their attitudes toward and satisfaction with the implementation of related activities. Special attention was paid to analyzing the implementation of policies consistent with the World Bank's principles to assess whether the objectives set out in the core principles and elements can be met. Therefore, this section provides analysis and assessment against the six core principles and elements of social relevance.

5.4.1 Core Principle #1: Sustainable social risks management system

Element 1: Operate within an adequate legal and regulatory framework to guide E&S impact assessments, mitigation, management, and monitoring at the PforR Program level

201. As presented in **Chapter 2**, the activities supported by this PforR encompass both physical projects, such as the construction of grassland protection facilities, grassland ecological restoration projects, livestock farming production and affiliated facilities, as well as improvement and upgrading initiatives. Additionally, it includes non-physical activities, such as applying livestock product certificates with green and organic/low-emission indications, the formulation and implementation of policies, mechanisms, and technical standards related to sustainable grassland management and low-emission livestock development, and relevant skill and technology promotion and training.

202. Regarding both physical and non-physical activities like policy formulation, mechanisms establishment, and standards development, as discussed in detail in **Section 5.2.1**, there exists a comprehensive legal framework for social risk identification and assessment from the national to provincial and county levels. At the national level, the General Office of the CPC Central Committee and the General Office of the State Council released the Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances (ZBF [2021] No.11), an updated version of the document (ZBF [2013] No. 17). At the provincial level, there are implementation opinions formulated based on national policies, such as the "Notice of Gansu Provincial Committee and Government on Issuing Several Implementation Measures for Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions under New Circumstances (GBF [2021] No.33). In addition, cities and counties have developed implementation plans based on national and provincial policies, tailored to local circumstances. Examples include the Implementation Plan for Strengthening Social Stability Risk Assessment for Major Decisions under New

Circumstances (SPAZ [2021] NO.4) of Sunan Yugur Autonomous County, the Notice on Fully Implementing the Regional Social Stability Risk Assessment System for Construction Projects (XBF [2020] No.70) issued by the Lanzhou New District, and the Implementation Plan for Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances and the Implementation Rules for Social Stability Risk Assessment of Major Decisions in Guazhou County. These documents stipulate the requirement for conducting SSRA for major decisions, projects, and events.

203. To ensure the quality and effectiveness of the SSRA, each project county has established a pool of experts for SSRA. For example, in Jingchuan County, the social stability maintenance office selected 57 experts through invitation, experts' applications, and recommendations adheres to the principles of openness, fairness, scientific, and comprehensiveness. Experts in the pool mainly consist of personnel with strong professional knowledge and extensive practical experience from 45 government authorities, administrative agencies, industrial and commercial units, such as Justice Bureau, Housing and Urban-Rural Development Bureau, Transportation Bureau, EEB, ARAB, WRB, Planning, NRB, Fire and Rescue Administrative Bureau, Emergency Management Bureau, and Industry and Information Technology Bureau. The stability maintenance office of the county has also issued the Management Measures for the Expert Pool for Social Stability Risk Assessment in Jingchuan County (trial), outlining the responsibilities of each expert. The establishment of the expert pool effectively promotes the in-depth implementation of SSRA. In Sunan Yugur Autonomous County, a leading group for the SSRA of major decisions has been established to guide the county-wide SSRA work. Guazhou County considers SSRA as a crucial prelude to decision-making, policy formulation, reform, and project initiation. It covers various fields, gradually forming a pattern of "unified leadership by the Party committee and government, organizational promotion by competent departments, specific implementation by responsible entities, and guidance and supervision by the PLAC" in SSRA. The county intensifies the review efforts of government departments related to planning and site selection, compensation and resettlement for land acquisition and house demolition, environmental impact, and natural resources through tightly focuses on the "six major elements" of planning and site selection, land acquisition, resource development, project commencement and construction, and the rights and interests of stakeholders and "five steps" of refining and standardizing schemes, widely soliciting opinions, risks identification, analysis, and mitigation. Based on the actual work, it has formed a pool of more than 20 experts from relevant fields such as housing and urban-rural development, emergency response, environmental protection, development and reform, and natural resources. The responsibility for SSRA has been incorporated into the annual key performance indicator assessment of leadership teams in townships and departments involved. It's required to conduct SSRAs for major matters related to the vital interests of the public in advance and strictly implement rigid preconditions, ensuring thorough assessments before decision-making, discussion in meetings, project listing and implementation. In this regard, the PLAC of Guazhou County, Sunan County, and other counties notify townships and government departments to comprehensively review major decisions, policies, reform matters, projects, and events on an annual or semi-annual basis and conduct SSRA in advance (see Figure1).

204. According to information provided by the PLAC of the sample counties, SSRAs are usually undertaken by the specific project implementation units. When these units apply for project approval or filing with the DRC, the DRC would provide a checklist of required documentation, which includes the necessity of conducting a SSRA. Based on the potential social impacts of the project, the procedures for filing SSRA can be categorized into two types: simplified procedures and general procedures. The project implementation units usually hire qualified consulting firms to conduct SSRA and invite industrial experts to review the reports. For projects eligible for simplified procedures, once the SSRA report is completed, it can be directly filed with the PLAC of the county. In the case of projects subject to general procedures, only SSRA reports have passed expert reviews can be filed. Additionally, the SSRA can be an independent document or a specialized chapter within the project FSR or design documents. The SSRA workflows in the sample counties are generally consistent, as shown in Figure2.

205. Through the site survey of sample counties, it was found that various types of projects have conducted SSRA in accordance with policy requirements. For example, in 2022, all 62 major decision-making items of Guazhou County underwent SSRA and filing procedures; Minle County conducted a total of 97 SSRAs and filings for major decisions; Lingtai County conducted 67 SSRAs and filings for major items from January to October 2023, including projects related to ecological rehabilitation, infrastructure improvement and renovation, and the construction of agricultural and livestock product processing bases, etc.

206. Regarding skills and technology promotion and training activities related to sustainable grassland management and low-emission livestock development, it will not directly cause losses to farmers and herders.

Instead, it aims to improve their environmental awareness and gradually change their livestock farming practices. Such change requires farmers and herders to acquire certain skills and technologies to improve their capabilities. To address such impacts, a farmer training system has been established from the MARA to the provincial and county levels. This is accompanied by a series of technical support, policy guidance, and other measures to assist farmers in accelerating their improvement and transformation.

Education and Training:

- **Training mechanism to Farmers:** i) Overall Planning, it is a long-term strategy for the Chinese national and local governments for training the farmers on economic growth, technique improvement, environment protection, health and safety. It is under the uniform deployment and arrangement of the MARA to all provinces, cities and counties, and is carried out in all counties and cities every year, which is part of the annual performance assessment of the agriculture and rural affairs departments. For example, in April 2022, MARA issued the Notice on Training of the High-Quality Farmers in 2022, putting forward the work ideas, main tasks, special actions and work requirements for the training of high-quality farmers nationwide in 2022. Accordingly, the annual work plans were developed by integrating the requirements of MARA and local situation. For example, in 2022, Gansu Province modified the Regulations on Trainings to Farmers in Gansu Province, and published the Notice of Gansu ARAB on Issuing the Implementation Plan of High-quality Farmers in 2022. ii) Institution, the county/district ARABs are responsible for implementation of trainings to the farms through dedicated organization and agencies, such as the General Administration Office of Farmer Education and Training, Agricultural Radio and Television Schools at Provincial, Municipal and County Levels, etc. iii) Budget, the training is free for farmers, including the cost on meals and dormitory during the training. The budget of training is mainly covered by the special finance support of the central and provincial governments, for example, the budget of Gansu Province was CNY 84.6 million yuan in 2022, among which, CNY 400, 000 yuan for Guazhou, Minle and Sunan respectively, CNY 1 million yuan for Zhengning and Lingtai, and CNY 1.2 million yuan for Jingzhuang County. Most of the budget are spent on training courses, experiments and in-field observation, and the rest are normally spent others, e.g., training promotion, enrollment work. iv) Application, farmers who intend to join the training can apply through the village committees/community offices, or through the official website or APPs of local ARABs. For example, people can join the training through the website of China Rural Remote Education (www.ngx.net.cn) or APPs on the cloud platforms established. v) Teachers, all the teachers must be selected from the list of teachers issued by the MARA. Priority will be given to those who are recommended by levels of government departments. All teachers should be those with required certificates, i.e., teacher qualification certificate, or valid certificates approved by qualified official units. More than half of teachers in a class should be certificated as provincial or higher level.
- **Context:** the training contents are suiting the development level of agriculture and rural, times improvement, changes of society, economics and ecological environment. For example, the Skills Training for Leaders of Getting Rich in Rural Areas in 2003 was focusing on economic increase, while the focus in the new period is more on high quality development with the improvement of production and living levels of the people and their increasing awareness on environment protection. According to the Notice of Jinghua Gansu ARAB on Issuing the Implementation Plan of High-quality Farmers in 2023, a total of 29,670 farmers will be trained. The training Jinghua courses include three types: business management (such as leaders of new agricultural management, leaders of industry development, masters in crops planting, livestock raising and product processing, etc.), professional production (such as cattle and sheep farming, dairy farmer training, corn planting), technical services (such as agricultural mechanic, animal epidemic prevention, rural electricity business, etc.)
- **Performance Effect:** 17300 persons were trained in 2022, among which, 104 persons of Jingchuan County were trained with a pass rate of 100% and satisfaction rate of 95.15%.

Technical Support:

- **Technical Support by the Government:** investigation in the 4 demonstration counties of Gansu Province indicated that dedicates offices are established in each county, responsible for training and guidance. Offices providing these types of supports include animal husbandry and veterinary stations, soil and fertilizer stations, cultivation and protection station, in addition, each township government also arranged 1-2 representatives from its agriculture affairs service center and animal husbandry and veterinary stations to provide technical guidance and support during the animal husbandry and

vaccination in Spring and Autumn, sowing and field management of corn, wheat and other crops. The supports include not only agriculture and livestock farming technologies, but also environment protection during farming, reduction of pesticides and chemical fertilizers, recycling of agro-wastes. All the crops planting and livestock farming entities or individuals are the target groups.

- **Leading by the Agriculture Cooperatives:** the site investigation found that the agricultural mode of “cooperative plus smallholders” are broadly developing in Gansu, which means a cooperative operates hundreds or thousands of mu of land in an area with planting or livestock farming through LURT, in parallel, it also leads tens or dozens of smallholders to plant or breed by using the unified plan and standard. In order to improve the quality, reputation and price of the products, the cooperative always leads the smallholders to operate in green and environment protective ways. For example, the county's Animal Husbandry and Veterinary Center assigned professional technical personnel to Shengtong Livestock Farming Cooperatives in Yudu Town, Jingchuan County, to organize training sessions on beef cattle farming knowledge regularly, providing training on aspects such as beef cattle farming and disease prevention, and provide timely technical services to members of the cooperatives and other livestock farming smallholders. Additionally, the cooperatives purchased disinfection equipment and conducted regular disinfection for other members. The cooperatives also alleviated financial pressure on members and other livestock farming smallholders by centrally procuring feed and veterinary drugs at favorable prices from manufacturers and professional markets.
- **Technique Application:** Scientific and technological support has created favorable conditions for farmers to transform and improve their business methods. For example, Gansu Province has established the "Gannongyun" APP that farmers can learn planting and livestock farming knowledge online.

Policy Guidance and Demonstration:

- **Straw utilization:** In 2021 and 2022, the MARA successively issued the Notice on Comprehensive Utilization of Crop Straw, implemented the action of comprehensive utilization of crop straw, and insisted on the strategy of fertilization, feeding and energization. 300 counties and 600 demonstration bases for comprehensive utilization of crop straw has been established in nationwide. The objective is to ensure that the comprehensive utilization rate of straw across the country remains above 86%. In 2023, Gansu Province carried out comprehensive straw utilization pilot projects in 14 counties and cities across the province, including the project counties Jingchuan and Lingtai. The initiative involves the establishment of over 56 comprehensive straw utilization demonstration bases, focusing on improving the automation level of straw feed processing and the research and development of new technologies and processes, supporting the enhancement of storage capacity for haylage (silage) through equipping with facilities for crushing, compacting, and pelleting, to promote the transformation and added value of straw.
- **Grass-Livestock Balance:** To ensure the rational utilization of grassland resources, maintain and improve the ecological environment of grasslands, and promote the sustainable development of livestock industry, Gansu Province has implemented the Grass-Livestock Balance system since 2012. Following the incentive policy of national grassland ecological protection, awards are offered to farmers and herders who achieve a balance between grass and livestock, financial funds are used to build farming zones, designated pens, hay sheds, and other facilities, supports and guidance are provided to them on adopting measures such as artificial grass planting, livestock improvement, pen-feeding, rotational grazing, and off-site grazing to reduce the carrying capacity of grasslands and prevent overgrazing. For example, in Sunan County, herders are actively encouraged to pursue a modern livestock development path combining "natural grazing + pen-feeding + off-site grazing", namely grazing on the mountains during the summer and autumn, while raising in pens or off-site grazing in the winter and spring. From October to March of the following year, hundreds of farmers and herders of nearly 50 villages migrate around 150,000 head of cattle and sheep to nearby agricultural areas in Jiuquan, Ganzhou, Gaotai, Linze, Minle, and other cities and counties for off-site grazing.

207. **Assessment:** The field survey and consultation on sample counties in Gansu Province showed that the overall social impact of the PforR related activities was not significant. For potential social impacts, Gansu and each county have formulated implementation plans or rules in accordance with related laws and regulations issued by the national and local relevant departments, including SSRA and land use management system, institutionalized training arrangement, and specific management authorities and personnel, to ensure that the corresponding risks can be effectively controlled.

Element 2: Incorporate recognized elements of good practice in E&S assessment and management.

208. **(i) Early screening.** According to the documents provided by the provincial and county-level natural resources departments of Gansu as well as the site survey, it is confirmed that investigation and verification are implemented jointly at pre-construction stages. Site selection approval is required for those projects involve FALU and access control procedures are mandatory for large-scale LURT. The feasibility study reports are required to be appraised through the panels of related professionals under the organization of local DRC, and the result of site selection that must be compliance with local overall spatial planning of national land.

209. The NRBs of sample counties (district) introduced about the project site selection process. Through comparison, the management process of sample counties is basically the same. For construction projects involving FALU, such as the Guziwen Livestock Farm in Tianshengchang Community, Qifeng Tibetan Township, Sunan County, the project site selection process followed the land management requirements for FALU in Gansu Province, signed a land use agreement with the township and community and filed records with the county's NRB and ARAB. During discussions with the NRBs of the 4 sample counties, it was confirmed that the FALU filing process typically involves obtaining approval from the relevant village/community committee (confirming awareness and consent), review by the natural resources department of the township government (confirming awareness and consent, aligning with local overall spatial planning of national land), examination by the FGB (specifying technical requirements for land use in forestry and grassland areas), and review by the county's NRB (examining whether it is line with the planning, determining whether it involves permanent basic farmland and adheres to ecological protection redlines). Figure3 shows the FALU filing form of the Guziwen Livestock Farm. For projects invested by social capitals and involving large-scale LURT, the sample counties have formulated and implemented systems for the entry supervision and risk control, including review of qualifications of such enterprises, e.g., legal status, registered address, qualification and credit, technical expertise, production and operation management capability, land restoration capability, and performance, control of the duration and area of LURT, and the payment of performance bonds for one-time LURT exceeding 500 mu. For example, Shunyue Agricultural Machinery Service Farmers Professional Cooperative in Guazhou County leased 628 mu of farmland in group 7 of Nancha Village through LURT, the village committee and township government reviewed the cooperative's qualifications, the location of the leased land, involved farmers, purpose, LURT price, etc. during the filing stage (as shown in Figure4). In addition, the competent departments are invited to participate in the review and evaluation of the project documents like FSR and project design, including the screening and identification of project impacts and risks, and the development of management plans. For example, the WRB provides opinions on soil and water conservation and water source protection for the project, the EEB's requirements on environmental protection and management during construction, and the cultural relics management department's opinions on whether to protect and manage cultural relics.

210. By reviewing the sample project documents provided by each county, it was observed that projects that prepared a specific SSRA had more comprehensive screening and analysis of social risks, developed corresponding mitigation measures, and incorporated into the project design and supervision during implementation, demonstrating good performance. For example, factors such as environmental impact, labor use, and other risks during the construction phase of projects were identified and analyzed in SSRA. Corresponding measures for risk mitigation and control were formulated and incorporated into design, reflected in project construction and supervision contracts. On the other hand, for some small sized facilities, such as livestock farming zone, although existing management systems and measures were effective, the identification and mitigation measures of social risks and impacts were not sufficiently reflected in the design and implementation management documents (e.g., project proposals, FSR, design documents), or the records of public consultations and information disclosure processes were not complete.

211. **(ii) Alternatives.** During the project preparation stage, relevant project assessment reports, such as the project FSR, should propose several principles for site selection, and compare them among different alternatives, including compliance with land use policies, economic analysis, and environmental and social impact analysis, and recommend a certain option based on this. For example, in the 2023 Cultivated land In and Out Balance Plan of Sunan County, specific requirements were outlined for the rationality of site selection for eight construction projects, including the Minghua Township Minghua Logistics Industry Road Construction Project and the construction of livestock farming zones in Longfeng Village, Kangle Town. These requirements include land conditions, degree of concentration, village and farmer preferences, project implementation challenges, transportation conditions, and industrial clusters, etc.

212. **(iii) Avoidance, Minimum and Reduction of Impacts and Risks.** The SSRAs and FSRs of previous projects in 4 sample counties were reviewed. The results showed that the SSRAs all referred to the

requirements of the Notice of the General Office of the National Development and Reform Commission on Printing and Distributing the Social Stability Risk Analysis Chapter and the Outline for the Preparation of the Assessment Report (Trial) of Major Fixed Assets Investment Projects (FGBTZ [2013] No. 428), and included a basic framework of social risks identification, analysis, prevention and mitigation. For example, in the SSRA report of the 2023 Ecological Rehabilitation Project at the Eastern Entrance of Guazhou County, detailed preventive and mitigative measures were proposed for risks related to project policies, planning and approval, technical and economic, ecological and environmental impacts, economic and social impacts, as well as risks during project implementation and operation. In the SSRA report of the construction of the cattle shed project in Niujiayu Village, Gaoping Town, Jingchuan County (see Figure5), specific measures were outlined to address identified safety risks during construction and the risk of wage arrears for migrant workers. These measures include: 1) Strict adherence to construction procedures to ensure project quality; 2) Intensifying project publicity efforts to maximize community support; 3) Rigorous implementation of safety measures during construction; and 4) Strict enforcement of the wage guarantee deposit system for migrant workers to protect their legitimate rights. As shown in Figure6, concerning the LURT of Shunyu Agricultural Machinery Service Farmers Professional Cooperative in Guazhou County, preventive measures were implemented by the Nancha Town government to mitigate the economic losses to farmers caused by the cooperative's operational risks. The preventive measures include paying leasing fee first before planting, and paying a land leasing deposit of 62,800 yuan at a rate of 100 yuan/mu, ensuring farmers' rights.

213. **(iv) Institution and Budget.** In Gansu Province, the government responsibilities for grassland protection and ecological restoration, and livestock farming-related projects in various counties are generally similar. The NRB and FGB are responsible for projects related to grassland protection and ecological restoration, while the ARAB and AHVMB oversee projects related to livestock farming. Once specific projects are included in the national or local investment plans, it's required to undergo a comprehensive evaluation process, including overall project assessments (such as approval of FSR) and specific assessments (such as site selection approval, land use approval, SSRA, etc.). In addition, the project investment budget and funding plan must be approved through joint reviews by the financial department and other relevant authorities to ensure the project has a clear and sufficient budget source, organizational structure, and management plan. At the provincial level, departments work under the unified coordination of the provincial government, with specific representatives assigned for coordination. For example, the coordination of this PforR is assigned to the provincial DARA. The arrangements at the county level are generally consistent with that at the provincial level. Project preparation, construction, and operation by project implementation units are subject to routine guidance and supervision from departments such as EEB, NRB, HRSSB, HC, FB, Audit Bureau, etc., ensuring the implementation of E&S management measures.

214. **(v) Public Participation, Information Disclosure and GRM.** According to the site survey in 4 sample counties and the analysis of SSRA reports of sample projects, such as SSAR report of the 2023 Ecological Rehabilitation Project at the East Entrance of Guazhou County and the Cattle Shed Construction Project in Niujiayu Village, Gaoping Town, all projects conducted public consultations as required during the SSRA process. For example, the SSRA report of the Cattle Shed Construction Project in Niujiayu Village, Gaoping Town indicates that the project conducted public consultations and comments collection from relevant departments and surrounding residents by on-site visits and information disclosures, organized stakeholder engagement and expert review meetings to form the final report. The SSRAs for projects in various counties all underwent expert reviews and were officially filed by the government.

215. The NRB of each county introduced the management procedures, information disclosure and public participation mechanisms of FALU during the site survey. The details include: first, the land user is required to consult with the village community and township government at the initiation stage. Second, after reaching a preliminary agreement, the land user must seek opinions from various departments such as the county WRB, FGB, Transportation Bureau, NRB, cultural relics management department, etc. Third, once all approvals are obtained, a public announcement should be made in the village community, with a period not less than 10 days. Last, if there are no objections received at the end of the public notice period, the village community organization can sign the LURT agreement with the land user. According to the introduction from the Agricultural Service Center of the ARAB, for LURT, the land use party needs to undergo qualification review by the village community and township government during the application stage. For those above a certain scale, county ARAB review is also required. After passing the review, while negotiating the LURT agreement between relevant parties, the land user must ensure that the relevant project information is freely and unconditionally open to the township government, collective economic organizations, and affected households.

The land-using parties can only sign the LURT agreement after reaching an agreement on various terms such as boundaries, area, duration, price, etc.). Therefore, LURT is a result mutually recognized by both parties. At the specific project level, in addition to the above procedures, requirements for information disclosure, public participation, and GRMs are also included in the project assessment documents, such as EIA, with specialized monitoring and supervision mechanisms in place.

216. The focus group discussion(FGD)s with representatives of 4 ethnic minority-concentrated communities in Guazhou County and Sunan County revealed that each village has established a WeChat group with all villagers joined in. Daily notifications and information are primarily disseminated to villagers through such WeChat group. In matters affecting a large number of villagers, the village committee organizes village meetings to solicit opinions. Representatives from ethnic minority-concentrated communities in Sunan County indicated that their villages had previously implemented projects similar to grass-livestock balance, rotational grazing, grassland ecological restoration, and infrastructure construction and renovation for livestock farming, etc. Before implementing these projects, villagers were informed through public notices and village meetings, and feedback from villagers was generally considered and accepted. It's also found that the implementation of grazing bans and grass-livestock balance systems received widespread support from the communities. However, there were still some farmers didn't understand and unwilling to cooperate, because they thought the subsidy standards were too low. Regarding the proposed activities under the PforR, representatives who participated in FGDs expressed support, but they also voiced concerns about whether project activities might increase the cost of livestock farming. To address these concerns, it is recommended to conduct effective information disclosure and public consultation during the preparation and implementation stages of each activity to gain the support and understanding of farmers and herders.

217. The site survey in sample counties of Gansu confirmed that local government departments implemented the Regulation on Letters and Visits, and there was a complete set of GRMs. Taking Sunan County as an example, the village (community)-level GRM includes three levels: first, directly report the situation to the relevant implementation units and seek solutions; The second is to reflect and seek solutions through village committees or community committees to report to and coordinate by township governments or sub-district offices; The third is to handle complaints through the PCPB of the county government or the county head's hotline/mailbox. The process includes the mechanism of collection, starting within 7 days, and processing and feedback within 2 months. In addition, residents can also resolve major disputes through civil litigation in the court. Overall, the grievance redress mechanism is sound and effective.

218. **Assessment:** The site survey to Gansu Province and relevant project counties shows that relevant assessments have been implemented and approved as required in the early stage of the project like grassland ecological restoration, livestock farms (zones, cooperatives) construction, etc. The screening process of social risks like SSRA, FSR and alternatives comparison and selection were also conducted. Public consultation and information disclosure were carried out during the relevant assessments. The review opinions of relevant departments and reasonable suggestions from public participation were fully considered in the project design. For some small sized facilities, such as livestock farming zone, although existing management systems and measures were effective, the identification and mitigation measures of social risks and impacts were not sufficiently reflected in the design and implementation management documents (e.g., project proposals, FSR, design documents), or the records of public consultations and information disclosure processes were not complete. The implementation of grazing bans and grass-livestock balance systems received widespread support from the communities. However, there were still some farmers didn't understand and unwilling to cooperate, because they thought the subsidy standards were too low. Regarding the proposed activities under the PforR, representatives who participated in FGDs also voiced concerns about whether project activities might increase the cost of livestock farming. To address these concerns, it is recommended to conduct effective information disclosure and public consultation during the preparation and implementation stages of each activity to gain the support and understanding of farmers and herders.

219. **Recommendation:** Clearly document aspects of E&S risks management process and measures in project FSR, design documents, etc., including risk identification analysis and mitigation measures, budgets, and meaningful stakeholder consultations.

5.4.2 Core Principle #2: Cultural heritage management system

Element 5: Take into account potential adverse effects on tangible cultural heritage and provide adequate measures to avoid, minimize, or mitigate such effects.

220. During the communication with the NRBs and CHABs of Gansu Province and sample counties, it was learned that the planning department consulted and listened to the opinions of the CHAB when formulating and updating the local spatial planning of national land, including obtaining the regional cultural relics distribution data, and integrating the cultural relics census results into the local land use planning. As introduced by the CHAB of Lanzhou New District, Guazhou, Sunan and Jingchuan County, when a project involves occupation of state-owned land that i) within the underground cultural relics protection area; ii) covering an area of over 20,000 square meters; iii) within the scope of a famous historical and cultural city; iv) involves the protection scope and construction control zone of cultural relics protection units. Archaeological surveys and exploration of cultural relics should be conducted before land supply. For Category i) within underground cultural relics protection area, the land that may contain historical and cultural relics is usually approved by the local CHAB and designated as an underground cultural relic protection distribution area. The specific scope is agreed with the local NRB and reported to the local people's government for approval before being announced to the public; The protection scope and construction control zone of historical cities and other areas, and immovable cultural relics protection units in Category i) and Item iv), shall be approved by the local CHAB, and reported to the local people's government for approval before being announced to the public. For example, Figure7 is the Notice on the Protection Scope of County-level Cultural Relics Protection Units and Construction Control Zone published by the People's Government of Minle County. According to the introduction of Jingchuan County, 319 cultural relics protection areas within the county has been included in the land space planning, including 3 national key cultural relics protection unit, 9 provincial cultural relics protection units, 35 county-level cultural relics protection units, and 269 general cultural relics sites. At the preliminary examination and site selection stage of the project, the project site selection shall comply with the local overall spatial planning of national land, which ensures that no other construction activities, e.g., blasting, drilling, excavation, and other operations, are allowed within the protection scope of the cultural relic protection units required by the Law on the Protection of Cultural Relics.

221. During the preparation phase of construction projects, the PIU is required to submit relevant documents such as site selection, designs, drawings, and implementation plans to the CHAB for verification. Following approval from the CHAB, the submission proceeds to the urban and rural construction planning department for final approval. At the project review stage, the local DRC would invite experts from the CHAB to participate in the project FSR review. If the selected site of the relevant construction project is within the specified scope of cultural relics protection units, a hierarchical reporting process is initiated according to the level of the cultural heritage protection unit and it is necessary for the CHAB to entrust qualified cultural relics exploration institutions to implement cultural relics protection measures. For example, when the Jingchuan County Industrial Concentration Zone Administration Committee was preparing the Jingchuan County Red Bull Industry Park Infrastructure Construction Project, it initially submitted a letter to the county museum titled "Regarding the Application for Verification of Whether the Preliminary Site Selection for the Jingchuan County Red Bull Industry Park Infrastructure Construction Project Falls within a Cultural Relics Protection Area". Following the review, the county museum issued an "Examination Opinion on the Cultural Relics Protection Area within the Preliminary Site Selection of the Jingchuan County Red Bull Industry Park Infrastructure Construction Project" to the county CTB. After further verification, the CTB issued an "Examination Opinion on the Cultural Relics Protection Area within the Preliminary Site Selection of the Jingchuan County Red Bull Industry Park Infrastructure Construction Project" to the Jingchuan Industrial Concentration Zone Administration Committee (see Figure8), which confirmed that the project site selection did not involve national, provincial, or county-level cultural relics protection units, nor general cultural relics sites.

222. In terms of reconstruction of existing underground pipelines, roads, squares, green spaces, plant areas, and other construction projects which does not exceed the original area and depth, or the original depth has been excavated to the raw soil layer, archaeological exploration may not be conducted after investigation and confirmation by a qualified unit for archaeological investigation and exploration and approval by the municipal administrative department of cultural relics. For example, construction projects implemented within the Lanzhou New District, with a land area of less than 100,000 square meters and explicitly not involving cultural relics protection units, do not require verification by the CTB.

223. For construction projects in other areas with unknown cultural relics, it is necessary to conduct cultural relics exploration first, confirm by qualified units for archaeological investigation and exploration, and report to the municipal cultural relics administrative department for approval; If cultural relics are not discovered before project construction but found during excavation, the cultural relics administrative

department shall entrust a qualified cultural relics exploration institution to implement cultural relics protection measures. Once discovering cultural relics, the construction unit will promptly report to the county level cultural relics administrative department in accordance with the provisions of the Cultural Relics Protection Law, then the county level cultural relics administrative department will report to the provincial cultural relics administrative department level by level to organize archaeological excavation units to conduct archaeological investigation and exploration of the places where cultural relics are buried within the project area. When encountering national key cultural relics protection units, provincial cultural relics protection units, municipal and county level protection units, and generally immovable cultural relics during the project site selection, it is necessary to change the project site. Following confirmation with the provincial and local cultural relics administrative departments, it is affirmed that approval from cultural relics administrative department is required for all construction projects related to facility agriculture under the PforR, including livestock farms, zones, and cooperatives, as well as other soil-disturbing civil works. For example, Figure9 presents an official document issued by the CTB of Sunan Yugur Autonomous County regarding the verification of whether any tourism zones and natural and cultural heritage sites involved by the construction of cattle sheds for the Huashulin Livestock Farming Farmers' Professional Cooperative. Meanwhile, Figure10 presents a Reply on the site selection of livestock farming zones of Taoyan village and Zhuoni village in Guangzhi Township issued by the CTB of Guazhou County, which clearly specifies: (i) there is no registered cultural relics are present in the selected area and approve the project site selection; (ii) incorporate cultural relics protection fund into the project budget due to the potential discovery of relics or buried artifacts; (iii) an immediate halt to construction and prompt reporting to the county CTB upon identifying new relics or buried artifacts during construction; (iv) meticulous minimization of disturbance to the original soil layers surrounding the selected site, given its adjacency to the construction control zone of the Guangzhi Northern Tomb Cluster; and (v) prohibition of arbitrary alterations to the project site. A Reply of the CTB of Guazhou County on the comprehensive survey of gold and polymetallic minerals in the Laoshitu area of Guazhou County, Gansu Province explicitly stated that the scope of the project site involves cultural relics protection and construction control zone, and recommended the project owner to change the site selection.

224. The CHABs of 4 sample counties confirmed that there is no need to conduct cultural relics exploration for projects that do not break ground. The system of cultural relics administration in each county of Gansu Province are basically the same, including the management of site selection in the early stage of the project and the protection and management of cultural relics during the project implementation process. The relevant cultural relics management system can avoid the impact of the project on cultural relics resources.

225. **Assessment:** In the process of project management, all relevant departments fully considered the potential impact on cultural relics resources according to the requirements of cultural relics protection laws and regulations and avoided the impact on cultural relics as much as possible through optimization of project designs. For unavoidable impacts, strict management plans need to be formulated and approved before implementation.

5.4.3 Core Principle #3: Public and worker safety management system

Element 6: Promote adequate community, individual, and worker health, safety, and security through the safe design, construction, operation, and maintenance of Program activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial works as appropriate.

226. As mentioned in **Chapter 5.2 and 5.3**, a workers and community management system for the whole process from design to construction and operation and maintenance has been established by government at all levels, including related laws and regulations, and corresponding management institutions, such as labor safety management system, occupational health management system, labor contract management system, bidding and procurement system, emergency response mechanism, community and labor grievance mechanism, etc. Field investigations conducted in Lanzhou New District, Guazhou, Sunan and Jingchuan County also showed that previous and ongoing projects in various regions have basically complied with the requirements of laws and regulations.

227. **Worker's health and safety management during the construction and operation of livestock farming facilities.** During the design phase, projects usually carried out EIA, SSRA, safety assessment, and occupational health assessments based on project characteristics, project location, and surrounding natural and living conditions, technical requirements, and legal requirements, and developed various management plans,

including emergency response plans, community engagement mechanisms, and employee GRMs, etc. The safety risks of specific project related communities and workers have been identified through these assessments, and corresponding management measures have been developed. For example, in the FSR of the Guazhou County Livestock and Poultry Manure Resource Utilization Promotion Project, it dedicates the analysis of potential safety risks during project implementation and operation and formulates mitigation measures for occupational health and safety in Chapter 8 Environmental Protection, Labor Safety, and Fire Safety. Similarly, in the FSR for the Guazhou County Thousand-Head Beef Cattle Raising Demonstration Farm and Thousand Mu of High-Quality Forage Planting Demonstration Base Project, the Chapter 11, focusing on organization and management, includes a dedicated section on labor protection and occupational health and safety. Furthermore, in the SSRA report of the 2023 Ecological Rehabilitation Project at the Eastern Entrance of Guazhou County, specific preventive and mitigation measures are outlined for identified construction safety risks. During the project construction phase, various safety measures were implemented together with the main works, and usually equipped with environmental monitoring and engineering supervision to ensure the effective implementation of the measures. Taking the example of the Beef Cattle Farming Zone Affiliated Infrastructure Construction Project in Hedong Town, Guazhou County, during the tendering phase, specific requirements were imposed on the construction unit concerning safety management. These requirements encompass adherence to safety production regulations, provision of safety training, installation of safety facilities, arrangement of work-related injury insurance, and strict adherence to safety operating procedures. These stipulations were explicitly incorporated into the construction contract (see Figure11). During the construction phase, a supervision unit was hired to conduct overall oversight of the implementation of safety measures, management practices, on-site civilized construction, and safety maintenance throughout the entire construction process. Upon the completion of project construction, the project implementation unit, relevant government departments, and experts conducted inspections and issued a completion acceptance report for safety facilities, as shown in Figure12. During the operational phase, potential occupational health hazards related to the low-emission livestock farming activities supported by the PforR are primarily Brucellosis and Anthrax, which are zoonotic diseases. On one hand, competent government authorities such as the county-level AHVMBs and DCPCs of HC organize regular free testing for Brucellosis among practitioners and conduct disease prevention and control technical promotion and training. For example, Sunan County has formulated the 2023 Brucellosis Prevention and Control Project Implementation Plan, allocating CNY 30,000 yuan, mandates the county DCPC to conduct high-risk population screening before 30 July, targeting individuals with an 80% history of exposure to Brucellosis, including those involved in farming, slaughter, sale of cattle and sheep, processing of milk, beef and fur, veterinarians, and laboratory personnel. On the other hand, relevant facilities have established corresponding health and safety management systems and provided employees with health examinations, personal protective equipment, and occupational health and safety trainings. For example, the Agriculture Investment Group of Lanzhou New District has formulated specific safety regulations for the Ecological Livestock Farming Project in the Rural Revitalization Industry Park. This includes safety production goals and assessment methods, establishment of safety organizations and personnel, identification, assessment, monitoring, and management of hazards, occupational health management, labor protection supplies management, emergency rescue, accident reporting, investigation, and handling. Regular safety inspection meetings were organized, and corrective measures were proposed and tracked for identified safety hazards. Safety operation procedures and safety warning signs were also displayed in the workplace of relevant facilities. The labor contracts between the relevant facilities and their employees include provisions specifying that the enterprise must provide necessary working conditions and tools for employees, establish work norms, labor safety and health systems, and standards, as well as offer essential labor protection and protective equipment, ensuring the safety and health of the employees. The contracts also require the employer to truthfully inform employees about potential occupational health hazards and consequences, preventive measures, and benefits during the work process, as depicted in Figure13. Moreover, the ARABs, EMBs, HCs, etc., periodically conducted safety inspections on relevant facilities, as illustrated in Figure14. These inspections assess whether occupational health and safety measures in related enterprises are in place, the implementation status of the "three simultaneities," and the monitoring of occupational health hazards by these facilities. In cases where issues were identified during inspections, enterprises were urged to address and rectify them. Through site visits and FGDs with community representatives, it was observed that standardized and large-scale livestock farming facilities typically have more comprehensive health and safety management systems, with good implementation practices. For example, they require employees to undergo pre-employment, on-position and exit health examinations. However, some small and medium livestock farming facilities such as farming zones in the village, cooperatives and smallholders exhibit a lower adoption of health and safety protective measures, incomplete disease prevention and control measures (including zoonotic

diseases) inadequate use of personal protective equipment, and poor management systems. Furthermore, the frequency of routine supervision and inspections by health departments on such non-enterprise nature facilities is relatively low. Few positive cases were detected and reported during the annual screening of practitioners for brucellosis.

228. **Community and public safety management:** Regarding potential health and safety risks to consumers and the public from the circulation of livestock products in the market, it's learnt from the site survey on ARABs, MSABs and selected enterprises in sample counties that management is primarily implemented across three stages: (i) Livestock raising stage: livestock raising enterprises and the AHVMBs undertake disease prevention and control measures. (ii) Production and processing stage: livestock product processing enterprises execute food safety production management. For example, the Guazhou County Caoyuan Huicheng Food Co., Ltd. has established a system for the health management and examination of food processing personnel, which mandates pre-employment health checks for employees, daily health checks, and annual health examinations and requires employees to wear clean work clothes and hats, maintaining hand hygiene on position. Detailed records, including employee health certificates, health examinations and interventions, as well as routine sanitary inspections, are maintained and documented. (iii) Market circulation stage: the MSABs conduct random inspections on livestock product quality, including checks for residues of drugs, as illustrated in Figure 15.

229. There were no issues about forced labor or child labor, or SEA/SH cases identified during the site survey. There will be no large-scale construction activities expected under the PforR, so the potential risks related to significant labor influx will be low.

230. **Labor GRM.** Labor dispute settlement mechanisms have been established at three levels from enterprises to county governments, including the corporate internal settlement mechanism, township labor dispute mediation center, and county labor dispute mediation center. Workers can choose to resolve labor disputes through mediation and arbitration, or lawsuit to the court or negotiation. For example, as introduced by the HRSSB of Zhengning County that there is a labor disputes mediation center in each of the 2 sub-districts and 10 townships. Since 2021, the HRSSB received 102 cases of labor disputes through such mechanism, involving a salary amount of CNY 1.08 million yuan. Among which, 68 cases were resolved through mediation and 34 cases were arbitration, with a resolution rate of 100%. The HRSSB also provided consulting services on labor protection laws and regulation to over 20,000 person-times. In addition, local HRSSBs said that the labor union is also one of the channels to solve labor safety and labor disputes, and the labor union can help employees obtain rights and interests in terms of safety training, health examination, working environment and living needs. The HRSSB of Jingchuan County introduced about the labor dispute settlement mechanisms in detail: when a labor or personnel dispute arises, worker can seek help from the labor inspection and enforcement authorities of the labor authority. The labor inspection and enforcement authorities investigate and determine whether to file a case within 5 days after receiving the complaint and requires the case that meet the acceptance principle (e.g., the violation occurred within two years, etc.) to be closed in 60 working days. It can be extended to 30 working days for complicated cases upon approval of HRSSB. Workers directly submit to labor disputes arbitration for resolution. The application for labor arbitration is valid for a period of one year. The labor arbitration consists of two levels, including mediation and arbitration. Usually, labor mediation is recommended as the priority, and the mediation will be completed within 15 days since receiving the application. If the mediation is successful, the labor and management will sign a mediation agreement, and if not, the worker may apply for labor arbitration. The cases subject to arbitration by an arbitral tribunal shall be ended within 45 days after the arbitration committee accepts the application for arbitration. If an extension is required due to the complexity of the case, it may be extended and notified in writing to the parties upon approval of the chairman of the arbitration committee, but the extension period shall not exceed 15 days. If the arbitration decision has not been made within the time limit, the worker may bring a lawsuit to the people's court concerning the labor dispute. The results include pre-case mediation, case acceptance, and no acceptance. If not accepted, a written explanation should be provided to the applicant. For example, in a project in Guazhou County, where 17 workers experienced salary arrears, the affected workers filed an arbitration application with the Guazhou County People's Labor Disputes Arbitration Committee on 31 May 2022. The committee issued an acknowledgment notice on 1 June 2022, and conducted a court hearing on 16 June 2022. The arbitration decision was rendered on 24 June 2022, and promptly delivered to both parties. Subsequently, within 15 days of receiving the arbitration decision, neither party lodged an appeal with the court.

231. **Assessment:** Overall, majority of the relevant facilities fulfilled the requirements and management measures for workers' health and safety in accordance with national laws and regulations at the stages of project

preparation, design, construction and operation. However, some small and medium livestock farming facilities such as farming zones in the village, cooperatives and smallholders exhibit a lower adoption of health and safety protective measures, incomplete disease prevention and control measures (including zoonotic diseases) inadequate use of personal protective equipment, and poor management systems. Furthermore, the frequency of routine supervision and inspections by health departments on such non-enterprise nature facilities is relatively low. Few positive cases were detected and reported during the annual screening of practitioners for brucellosis.

232. **Recommendation:** Strengthen the publicity, education, supervision and management of the prevention and control of animal diseases, zoonotic diseases, health and safety training and management of the small and medium-sized livestock farming facilities, as well as communities where the “off-site grazing” are practiced.

Element 8: Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR Program activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or affected by climate events.

233. The grassland protection and ecological restoration project inherently aim to eliminate the risks of natural disasters to communities and individuals. The facilities related to livestock farming, processing, and inspection are primarily located near villages or within urban areas. The project activities mainly involve upgrading and renovating these facilities, resulting in overall low risks of natural disasters during project construction and operation. Based on collected data and site survey, it is found that, at the preparation stage, FSRs or project designs included analysis of geo-hazards. Alternatively, specialized geo-hazard assessments were conducted to identify potential impacts and risks of natural disasters during the construction and operational phases and formulate management plans. During the construction phase, construction contracts signed referred to the conclusions of FSRs and/or specialized assessments, specified the responsibilities and obligations of the construction party in managing community and employee health and safety. Throughout the construction period, various safety management positions and personnel, including safety supervisors, were established according to the safety management plans to implement health and safety management on the construction site and monitoring mechanisms were developed to ensure health and safety management measures conform to the requirements outlined in the management plan. During the project's operation phase, rules and regulations in various forms were developed based on assessment conclusions and management plans and related trainings, record, and supervision systems were implemented. For example, the Guazhou County Livestock and Poultry Manure Resource Utilization Promotion Project conducted a survey on geological conditions, such as the discovery of structural fault zones and recent structural activities, as outlined in the FSR.

234. **Assessment:** During the construction phase, requirements have been made for the implementation of relevant measures. The investigation of project facilities in relevant counties shows that relevant units have fully managed the implementation process of natural disaster management.

5.4.4 Core Principle #4: Involuntary resettlement management system

235. In terms of land use, the PforR Program doesn't support any activities involving large-scale land acquisition and house demolition. Most of the activities will be implemented through FALU, LURT or within existing facilities or site. The main land use type include:

- a) **FALU:** involved by the activities related to the livestock production and affiliated facilities, like the construction of green, standardized, regulated, and low-emission livestock farms and zones, breeding farms, hey storage sheds, organic fertilizer processing plants, waste disposal facilities for livestock farming, slaughtering, processing and distribution process, diseases inspection and quarantine facilities, forage processing facilities, straw processing facilities, etc.
- b) **LURT:** involved by the activities of forage (e.g., alfalfa, corn) plantation in agricultural areas,
- c) **Upgrade on the existing facilities:** including the improvement of grassland fire prevention corridors, upgrades to herding trails, grassland ecological restoration activities, construction of artificial grasslands (pastoral zones), emission reduction facilities for livestock farms (zones, cooperatives, smallholders), precision feeding facilities, sheltered and penned feeding facilities, upgrade of livestock and poultry manure treatment facilities and, the digitization of environmental and disease monitoring systems throughout the livestock production, distribution, and slaughter processes, as

well as low-emission transformations for existing slaughter and processing enterprises, and enhancements to facilities for animal disease prevention, control, inspection, and quarantine. The majority of these activities involve upgrades and enhancements to existing facilities without additional land acquisition or occupation.

- d) **Limited TLU:** as seen in grassland restoration projects and artificial grassland, typically involves existing facilities, wasteland, or grassland. These areas undergo ecological improvements and restoration without additional land acquisition. In some cases, there might be a limited TLU during the construction phase.
- e) **Restrictions on access to natural resource:** primarily involved by the activities of grassland ecological restoration through short-term grazing bans and rotational grazing. To maintain a sustainable ecological system of grassland, it's required that, in specific areas and periods, grassland users or lessees to achieve the dynamic balance between the total available forage obtained from the grassland and other sources and the amount required for their livestock farming, and control the number of cattle and sheep grazed on natural grasslands.

236. The negative impacts of each type of land use are managed by different system. The six aspects under Element 9 are analyzed as follows.

(i) Minimizing negative impacts related to land acquisition

237. The physical activities supported by this PforR must undergo the basic processes of preliminary evaluation, design, and approval by competent government departments, monitoring or supervision of construction process, and completion acceptance. According to the requirements of laws and regulations related to project permitting and management, the preliminary assessments of the project need to be reviewed by the NRB for compliance, including reviewing whether the project land use meets national and local spatial planning, whether the land type meets policy requirements, and whether the project site selection follows the principle of avoiding or minimizing land occupation (especially not occupying basic farmland). For example, the Gansu Province Rural Revitalization Industrial Park (Ecological Livestock Farming Park) Project located in the Lanzhou New District underwent a meticulous site selection process. Following the final determination of the site during the preparation phase, the project submitted a request to the Agricultural and Forestry Water Bureau and the NRB of Lanzhou New District. The Agricultural and Forestry Water Bureau granted an approval and outlined four key clarifications in the document: i) The project site is not within a restricted livestock farming area; ii) The selected area does not occupy forestry land, wetland parks, or basic farmland and high-standard farmland; iii) The project site complies with epidemic prevention distance requirements. The NRB of Lanzhou New District, in their approval regarding the project site (see Figure16), explicitly specified: i) Prohibition of permanent basic farmland occupation; ii) Approval requirement and adherence to relevant standards for agricultural facility construction on general cultivated land; iii) Implementation of cultivated land "in and out balanced" when involving conversion cultivated land to other agricultural land and construction land for agricultural facilities; iv) The project is situated within the scope of the Dengjiagou Ecological Restoration Project, and it is suggested to minimize or avoid occupying cultivated land. It is found through this case that avoiding and minimizing land acquisition is an important principle for project site selection in the early evaluation and design stages of each project, which is also one of the important measures to avoid and minimize the negative social impacts of the project. The investigation and analysis of project cases in this regard has been described in detail in **Section 5.4.1**.

238. LURT typically applies to forage cultivation and related activities. According to legal requirements, LURT must be strictly limited to those activities related to agricultural cultivation, ensuring that the land remains dedicated to agricultural use. The ownership nature and agricultural purpose of the contracted land must not be changed. To prevent the "non-agriculturalization" of cultivated land, a daily inspection mechanism has been established by the law enforcement team within the county NRB. Therefore, the LURT management systems in each county can effectively minimize adverse impacts resulting from land occupancy.

(ii) Identifying and addressing economic and social impacts arising from land acquisition or loss of access to natural resources

239. It's confirmed by NRBs at each sample counties that the laws and regulations as well as procedures of FALU, LURT and TLU is basically the same. There is an identification process of socio-economic impacts caused by each type of land use according to law and development of management measures accordingly. This section mainly discusses the identification process of social impacts caused by various types of land use, and

section iv) will discuss socio-economic impact management.

- **FALU:** Before initiating the land review process, relevant departments must conduct on-site inspections, boundary surveys, DMS and registration of impacts caused by land use and obtaining confirmation and signatures from affected villagers. The DMS results and the draft agreement for FALU are disclosed in the affected community for at least 10 days. If there are no objections received at the end of the announcement period, the signing of the land use agreement can proceed. For land no longer in use, land restoration must be taken as required before returning to the village, and compensation for soil fertility loss should be provided. Take the been established Guziwen Livestock Farm in Tianshengchang Community, Qifeng Tibetan Township, Sunan County as an example, the responsible authorities for approving the FALU include the County ARAB confirmed that the project's land complies with facility agriculture land policies; the NRB verified that the land use aligns with local spatial planning of national land and policies, while the FGB confirmed the project complies with grassland use policies. Simultaneously, the Guzai Township Government and the Tianshengchang Community Committee expressed their consent and acknowledged that the project's construction is conducive to the development of village collective economy and the overall livestock industry in the township.
- **LURT:** there are usually two forms of LURT. First, villagers directly sign LURT agreements with the land user. In general, it involves limited land area and Guzan fewer households. The LURT agreement explicitly outlines terms such as the area, land type, price, duration, and payment conditions (see Figure17). The second form is collective economic organizations signing LURT agreements with the land user. In such cases, the land area is usually larger, involving more households. The village collective organization registers the affected households and their land areas, and disburses LURT compensation fee to affected households after receiving the payment from the land user. The price of LURT is agreed upon by both parties.
- **Grazing bans and grass-livestock balance system:** After delineating the grazing banning areas on the grassland, each township government and village committee are responsible for verifying the grassland area within their jurisdiction, affected households, subsidy recipients and subsidized areas. The results are publicly displayed through government websites and village notice boards (see Figure18) for verification and confirmation by farmers and herders through signature. For example, Minghua Township Government established a task team composed of village leaders, village cadres, and designated officials for each village. They conducted door-to-door visits, adhering strictly to the relevant regulations outlined in the Definition of Subsidy Recipients under the Third Round of Grassland Ecological Protection Subsidy and Incentive Policy in Sunan County, entering data for those eligible for policy benefits.

240. In addition, a systematical GRM has been established from grass-root rural village committees or community committees to township government, county-level government and above. Please see **Section 6.2** for the details about GRM.

(iii) Compensation and transition subsidy to be fully paid at replacement cost before land use

241. According to consultations with relevant provincial and county-level NRBs, ARABs, FGBs and sample enterprises/facilities in Gansu Province, the funds for project land use must be in place first, and compensation must be made before using land. Otherwise, local governments and villagers would oppose the use of land, and land cannot be provided. The leasing fees for FALU and LURT are typically determined through mutual agreement and explicitly stated in the land use agreement. For example, in the case of LURT of grassland, the leasing fee is usually negotiated and ranged from CNY 1,500 to 10,000 yuan/year based on factors such as land area, grass quality, and grass yield, with the payment made annually at the end of each year for the subsequent year. Before the land user completes the LURT filing procedures, the corresponding leasing fees or payments must be paid to the affected farmers. The payment receipt serves as one of the materials for the filing review, as shown in Figure19. In addition to the annual leasing payment of LURT, land equity is also one of the ways of LURT, that is, the village community or villagers to covert the land use rights into a certain number of shares in a production activity, and to receive equity dividends annually according to the shareholding agreement. In the cases of implementing grazing bans and grass-livestock balance systems due to the purpose of grassland conservation and ecological restoration, the central government has allocated grassland subsidy funds, and local authorities have formulated corresponding financial management measures. For example, Sunan County has promulgated the Collective Grassland Ecological Protection Subsidy and

Incentive Fund Financial Management Measures of Sunan Yugur Autonomous County and issued the Notice on the Implementation Plan for the Third Round of Grassland Ecological Protection Subsidy Incentives in 2021. This Notice explicitly outlines the standards of subsidies for grazing banning and achieving grass-livestock balance. The grazing banning subsidies are as follows: 1) for farmers and herders: CNY 21.84 yuan/mu for mountain grassland, CNY 15.5 yuan/mu for mountain desert grassland, CNY 3.16 yuan/mu for desert grassland, CNY 6.82 yuan/mu for alpine grassland; 2) for village collectives and state-owned farms: CNY 4.16 yuan/mu for mountain grassland, CNY 3.34 yuan/mu for mountain desert grassland, CNY 3.04 yuan/mu for desert grassland, CNY 2.22 yuan/mu for alpine grassland. The grass-livestock balance subsidies are: 1) for farmers and herders: CNY 2.59 yuan/mu for mountain grassland, CNY 2.08 yuan/mu for mountain desert grassland, CNY 1.89 yuan/mu for desert grassland, CNY 1.38 yuan/mu for alpine grassland; 2) for village collectives and state-owned farms: CNY 2.43 yuan/mu for mountain grassland, CNY 1.95 yuan/mu for mountain desert grassland, CNY 1.77 yuan/mu for desert grassland, CNY 1.3 yuan/mu for alpine grassland. The relevant subsidies are directly transferred to the accounts of farmers (organizations and entities) by the County Credit Union through bank transactions.

(iv) Livelihood restoration

242. As described in **Section 5.1.4**, livelihood restoration mechanisms are included in the domestic social management system: For example, the Land Management Law (2020) requires that living standard of farmers who's land have been expropriated should not be reduced and their long-term livelihoods should be guaranteed; The Notice of the Ministry of Natural Resources, the Ministry of Agriculture and Rural Affairs, the State Forestry and Grassland Administration on Issues Related to Strict Control of the Use of Cultivated Land (ZRZF [2021] No.166) requires that permanent basic farmland should not be converted to forest land, grassland, garden land, and other agricultural land and agricultural facility construction land. The annual in and out balance should be implemented for the conversion of cultivated land to other agricultural land and agricultural facility construction land through the converting other agricultural land, such as forest land, grassland, garden land, and other agricultural facility construction land into cultivated land to supplement the same amount and quality of cultivated land that can be used stably for a long time, and priority should be given to balancing cultivated land "in and out" within the collective economic organization to ensure that affected people within the economic organization can access to the same amount and quality of land. For example, Sunan County engaged a third-party company to formulate the "Annual Cultivated Land In-Out Balance Plan" (see Figure20) each year. This Plan entails a detailed investigation into the location, area, scope, and current status of the proposed construction projects, and allocate additional cultivated land area adhering to the principle of supplement before use. This approach ensures the non-reduction of cultivated land area and land quality. The Notice on Issues Related to the Management of Facility Agricultural Land Use (ZRZY [2019] No. 4) has strict regulations on the use and scale of FALU. For the facility agricultural land that are no longer used, it must be restored as required (see Figure21). All these measures are mean to avoid or minimize the project impacts on farmers' livelihoods as much as possible from a systematic perspective.

243. After excluding the activities involving large-scale land acquisition, the land use scale of activities supported by the PforR Program are limited. Most of the activities will be implemented through FALU, LURT, TLU or within existing facilities or site, without involving permanent land acquisition. During the PforR implementation, farmers may be affected in a short-term and compensated for such impacts, or receive continuous benefits through leasing fee or shareholder dividends. Upon the expiration of the land use period, the land will be returned to the farmers. Furthermore, farmers can also participate in work during the land lease period to obtain secondary benefits, thereby promoting the development of livelihoods. For example, the Hongdesen Alfalfa Planting Demonstration Base in Zhenxing Village, Qinchuan Park of Lanzhou New Zone not only pays LURT fees but also employs several hundred villagers from nearby communities for alfalfa cultivation, with an average wage ranging from CNY 130 to 150 yuan/day. Lanzhou Tianxin Modern Livestock Farming Demonstration Base employs about 90 staff, all of whom are farmers affected by LURT, contributing to increased income of affected households. Jingchuan County Xukang Food Co., Ltd., not only provides employment opportunities to LURT affected farmers but also leads approximately 4,060 people from 1,296 households in surrounding villages to engage in livestock farming with offering technical supports, including i) quarterly free livestock farming technology training and practical training organized jointly by the county ARAB, with a cumulative participation of 3,000 person-times; ii) providing superior breeds and feed formulas and recovering fattened bulls from farmers, leaving cows for breeding. Additionally, as mentioned in **Section 5.41**, ARABs have established a free farmer training system from the provincial to the county level. Moreover, localities are exploring effective measures to help farmers quickly improve their agricultural plantation and

livestock production technology and management skills; the HRSSBs also organize various types of vocational skills training to help farmers broaden their income sources.

244. In addressing the impacts on farmers and herders due to the implementation of grazing bans and grass-livestock balance system, governments at all levels, adhering to the principle of "banning grazing without banning raising, reducing the scale of livestock without reducing income", continually intensify policy support and improve operational mechanisms. In addition to encouraging farmers and herders to expand the cultivation of high-quality forage crops, adopt measures like off-site grazing, LURT of grassland, and confined or semi-confined feeding, local governments utilize fiscal funds to construct livestock sheds, forage storage sheds and affiliated facilities like water, electricity, and roads for farmers and herders. For example, in 2022, Sunan County invested CNY 64.7 million yuan to build 85 cattle and sheep breeding and forage storage sheds with a total area of 30,000m², 34 silage pits and harmless treatment tanks with a total capacity of 3,530m³; guided and supported the connection of agricultural and livestock product production and marketing and brands building by using CNY 8 million yuan of the Green Livestock Industry Development Special Support Fund, with a total development of 21 certification under the "Three Products and One Standard" initiative; and distributed CNY 8.38 million yuan of subsidized loans to support the transformation and upgrading of rural (pastoral) homestays. The county also provided public welfare positions for grassland management, etc.

(v) Information disclosure, public participation, and informed decision-making

245. As analyzed above, In the process of implementing FALU, information disclosure, village meetings, and public notices were carried out according to law in sample counties, because records of information disclosure and public participation are essential components of the land approval application materials. Concerning LURT, the land user underwent qualification reviews by the village community and township government during the application phase. For projects exceeding a certain scale, such as over 1,000 mu, reviews of county ARABs were conducted. Upon review, while negotiating the LURT agreement, relevant project information was freely and unconditionally shared with the township government, collective economic organizations, and farmers involved. Both parties involved can only sign the LURT agreement after reaching a consensus on various terms, such as boundaries, area, duration, and price. Therefore, LURT is the mutually recognized result. In the case of TLU of grassland involved by ecological restoration activities, the project implementation units also communicated with representatives of the village community and affected households before project implementation.

246. It's learnt from the communication with representatives of villagers during the site survey that villagers are generally satisfied with the process and compensation of land use and compensation. During the implementation process, affected people can raise their complaints or concerns to village committees, project implementation units or competent government authorities. As confirmed by villagers that their complaints can get a satisfied resolution. For example, in 2021, some farmers in Jingchuan County leased their contracted land to a project as a mixing site. However, it was later found that the project engaged in unauthorized sand mining without approval and failed to promptly pay the land leasing fee. In response, the affected farmers reported the situation to the village committee, township government, and the NRB, resulting in the immediate cessation of illegal sand mining activities. Regarding the delayed payment of the land leasing fee, a complaint was reported to the ARAB. After receiving the complaint, the ARAB promptly conducted an investigation and informed the investigation results and corrective measures in written form (see Figure22) to the township government for appropriate action.

247. **Assessment:** For FALU, LURT, TLU, etc. that may be involved in the PforR Program, a systematic legal system has been established at national and local level. Mature impact control principles, identification process, compensation, resettlement, and livelihood restoration mechanisms have been established, and specialized implementation agencies and financial support have been arranged. These mechanisms and their effective operation ensure that the impact of land use can be properly managed. In terms of information disclosure, it is required to disclose the land use information within the village for a certain period for all types of land use. Through the survey of villagers' representatives in the sample counties, people are generally satisfied with the implementation process and compensation payment of FALU, LURT and TLU, etc.

5.4.5 Core Principle #5: Management system for ethnic minorities and vulnerable groups

Element 10: Undertake meaningful consultations if the ethnic minorities are potentially affected (positively or negatively), to determine whether there is broad community support for the PforR Program activities.

248. Among the 7 demonstration counties (district) under the PforR, there are one ethnic autonomous county, namely the Sunan Yugur Autonomous County, 8 ethnic minority - concentrated townships and 137 EM-concentrated villages. The details of EM-concentrated townships, villages and population in each county is presented in the following:

- There are 24 EM groups with an EM population of about 16,000 in Lanzhou New District, accounting for 3% of the total population. The EM people are living in a scattered manner and mixed with the Han people. There are no EM-concentrated townships or villages.
- There are 22 EM groups with an EM population of 23919 in Guazhou County, mainly are the Hui, Dongxiang, Tibetan, etc., accounting for 18% of the total population of Guazhou. There are 4 EM-concentrated townships and 11 EM villages. The difference between the EM residents and the Han are primarily in language, religious beliefs, clothes, and food practices. However, the economic and social conditions between the EM people and the Han are the same, focusing on livestock farming (confined feeding) and crops plantation.
- Sunan Yugur Autonomous County is the only one Yugur autonomous county in China, with a total population of about 39,300. Among which, 22,590 of them are EM people of 20 EM groups, accounting for 57.5% of the total population. 3 townships and 102 villages/communities of the county are EM concentrated townships and villages/communities. Among the EM population, 10,684 of them are the Yugur, accounting for 27.2% of the total population. Sunan County has a rich grassland resource, so livestock farming (rotational grazing, off-site grazing) is the main income source of local EM people.
- There are 931 EM people in Minle County, mainly the Hui, Mongolian, Uyghur, etc., accounting for 0.5% of the total population. The EM people are living in a scattered manner and mixed with the Han people. There are no EM-concentrated townships or villages.
- There are 25 EM groups with a population of 2,292 in Jingchuan County, accounting for 0.7% of the total population. Among them, 2,040 are the Hui people living in two villages concentratedly, accounting for 89% of the total EM population. There are no EM townships in the county.
- There are no EM-concentrated townships in Lingtai County, but 16 EM-concentrated villages with a total EM population of 8,562, mainly are the Hui, Miao, Tujia, Zhuang, Mongolian, etc., accounting for 3.8% of the total population in the county.
- There are 23 EM groups with 2,785 persons in Zhengning County, accounting for 1.15% of the total population. Among them, 2,592 are the Hui people, accounting for 93% of the total EM people in the county. There are one EM-concentrated (the Hui) townships and 3 EM-concentrated villages in the county.

249. It is learned in the interviews with the provincial/county (district) ethnic affairs authorities that the PforR impacts on ethnic minorities are effectively managed in two ways. On the one hand, in accordance with the Constitution and relevant ethnic affairs management laws and regulations, the representatives of affected ethnic minorities are fully consulted on special issues to ensure that their opinions are respected. The organs of self-governance in the national autonomous areas are also responsible for safeguarding minority citizens' constitutional rights. On the other hand, public consultations are carried out in accordance with the relevant requirements for assessment of general construction projects. In each county (district), development plans and projects for the development of ethnic minority - concentrated areas and cultural protection were formulated and implemented. For example, in 2022, Sunan Yugur Autonomous County issued the Notice on the 14th Five-Year Development Plan for Ethnic Minorities (SZBF [2022] No. 50), which provides detailed arrangements for infrastructure development, sustainable agriculture and livestock industry development, enhancement of technological innovation capabilities, improvement of education, employment, social security, medical and health services, preservation of ethnic traditional cultures, environmental improvement, and talent cultivation,

etc. Ethnic features were considered by the ESSA consulting team during the selection of sampling project counties for site survey, so Guazhou County and Sunan Yugur Autonomous County in Gansu Province was visited and FGDs with representatives of EM-concentrated villages were conducted (as shown in Figure 23, Figure 24, Figure 25). It's learnt that the EAC or the United Front Work Bureau is the responsible authority for ethnic related affairs in each county. It's acknowledged from the EACs and United Front Work Bureaus that economic development projects in ethnic minority areas are usually proposed based on the specific village or township development needs. In each year, the village committee conducts diversified public consultation activities through common accepted methods like villager meetings to collect resident's opinions from bottom and submit the proposals to township government; then the township government submits the project construction application to EAC or other competent departments at county level (e.g., ARAB or AHVMB for livestock farming, FGB for grassland protection and ecological restoration); after receiving the applications, the EAC and other competent departments would conduct site investigation for verification, classify the projects based on its necessity and urgency, submit the project lists to upper management authorities in batches and apply for funds to implement. It can be seen that the Program is constructed based on the actual needs of ethnic minority concentrated areas, fully consideration and respect opinions of EM-concentrated areas and wide range support of ethnic minority residents. When implementing a specific Program activity in EM-concentrated areas, existing management mechanisms are applicable, for example, feasibility study at project preparation stage, SSRA, etc. Systematic public consultations and negotiations has been included in the assessments and evaluations to ensure EM people's opinions being respected. For example, during the formulation of the Plan for Construction of a Demonstration Zone for the Common Prosperity of All Ethnic Groups in Sunan County in 2022, extensive opinions and suggestions were sought from the public, including government officials, residents, and members of the People's Congress, through various means such as online platforms, telephone consultations, and meetings (see Figure 26). In April 2023, Louzhuangzi Village Committee in Mati Tibetan Township held the first-quarter community meeting for the year. Village leaders, village-resident task team and villager representatives participated in the meeting, discussed key infrastructure construction projects in the village and the annual village work plan, collected feedback on current needs, hotspots, and challenges from the residents sought opinions and suggestions from village representatives specifically for collective benefit projects such as road paving, safe drinking water, environment and sanitation improvement, and infrastructure development in the farming areas (see Figure 27). During the FGDs with representatives of EM-concentrated villages, it was highlighted that each village has established a WeChat group for villagers, and matters concerning the interests of villagers were disclosed through WeChat groups, bulletin boards, or village meetings.

250. **Assessment:** It's learnt from the provincial and county level management system that fully consultation and negotiation with EM residents can be implemented when dealing with EM related affairs through existing EM management system. When implementing projects in ethnic minority areas, the interests of EM are fully protected according to law and the right to be informed are guaranteed. The efficient implementation of these management systems will ensure the Program receives broad support from residents in ethnic minority areas. Thus, the social practice effects are consistent with the bank policy.

Element 11: Ensure that ethnic minorities can participate in devising opportunities to benefit from exploitation of customary resources and indigenous knowledge, the latter to include the consent of ethnic minorities.

251. The site survey in Guazhou and Sunan Yugur Autonomous County in Gansu Province reveals that local ethnic minorities like the Dongxiang, Hui, Yugur, and Mongolian have their distinct languages, though they also speak in Mandarin Chinese. Other ethnic minorities share no linguistic differences with the Han and primarily communicate in local dialects. The Hui and Dongxiang people exhibit distinctive characteristics in diet, clothing, beliefs, and festivals. However, their modes of production and daily life are nearly identical to those of the local Han people, focusing on livestock farming or crops plantation based on the region's natural resource conditions. The Yugur, one of the three Gansu Province's unique ethnic groups, possess specific traditional clothing worn mainly in significant festivals, while with little difference in daily clothing compared to the Han people. The Yugur residents primarily engage in livestock farming. No tangible cultural heritage of special concern is found. As an autonomous region for ethnic minorities and EM-concentrated townships, ethnic minority development funds are available at national, provincial, municipal, and county levels every year. These funds aim to support and develop the characteristic industries of ethnic minorities and improve their production and living conditions. Based on the survey, the ethnic minority development funds in project counties are primarily utilized in the following three areas: (i) improving basic production and living conditions, including constructing facilities such as village-level water supply for humans and animals, electricity, roads,

bridges, rural energy, etc.; (ii) providing skill trainings to ethnic minority populations and promoting advanced and applicable production technologies; (iii) developing planting, livestock farming, agricultural products processing, handicrafts, and ethnic tourism industries that leverage specific resource advantages and local characteristics. For example, Sunan County received an ethnic minority development fund of totaling CNY 27.61 million yuan in 2021. Among which, CNY 26.01 million yuan from the central level, 1.6 million yuan from the provincial level and 2 million yuan from the county level; Sunan received the central and provincial level ethnic minority development fund of totaling CNY 26.78 million yuan and county level fund of CNY 2 million yuan in 2022, and received the central and provincial level ethnic minority development fund of totaling CNY 26.06 million yuan and county level fund of CNY 3.12 million yuan in 2023. Guazhou received a provincial and municipal level ethnic minority development fund of totaling CNY 4 million yuan and 4.8 million yuan in 2022 and 2023 respectively, among which, CNY 1 million yuan for each EM township. According to the survey in 4 EM villages in Guazhou and Sunan County, representatives of village committees and villagers expressed that the differences between the local ethnic minorities and the Han are not significant. Distinctions are mainly observed in language, diet, clothing, cultural activities. These ethnic customs and cultures are fully respected in the local society. In terms of economic aspects, there is a broad similarity, with the majority of residents engaged in livestock farming activities. Each village received several million yuan of ethnic minority development funds every year in the past, primarily used for improving local infrastructures, such as roads, houses, and livestock pens. Village representatives expressed strong support for the implementation of the PforR, believing that activities promoting sustainable grassland management and low-emission livestock industry development are beneficial for the economic development of the local ethnic minorities. For example, in Guazhou County, the mode of livestock farming is confined feeding. Activities such as livestock farming technology promotion and livestock infrastructure improvement will contribute to the local development of livestock husbandry. In Sunan County, where seasonal rotational grazing is predominant, activities such as grassland ecological restoration, rodent and pest control, forage cultivation, and livestock infrastructure improvement will contribute to enhancing grassland vegetation and forage quality, promoting the sustainable development of livestock industry. During the FGDs with representatives of EM-concentrated villages in Sunan County, it was found that the county implemented activities such as grassland ecological restoration, grazing bans, rotational grazing, and grass-livestock balance in the past. The government provided corresponding subsidies to affected farmers, and carried out public consultations and information disclosure before subsidies distribution. Village representatives expressed full understanding and support to the PforR and the implementation of the PforR would not face significant challenges.

252. **Assessment:** Despite varying cultures in ethnic minority areas involved in the Program, plans and relevant protective projects are in place and implemented every year to protect the cultures of ethnic minorities. The implementation of the PforR is a promotion and support for the local systematic development planning of ethnic minorities and will bring more development opportunities to the people in ethnic minority- concentrated areas.

Element 12: Give attention to groups vulnerable to hardship or discrimination, including, as relevant, the poor, the disabled, women and children, the elderly, ethnic minorities, racial groups, or other marginalized groups; and if necessary, take special measures to promote equitable access to PforR Program benefits.

253. According to law, the protection of women's rights and interests is part of the routine management work of all departments and units, which is mainly implemented through women's federations at all levels and women's affairs management departments within enterprises and units. Projects and funds for the protection of women's rights and interests and women's development are prepared by governments and women's federations at all levels and the internal management departments of enterprises arrange every year. At the same time, local women's federations have also set up specific department like rights and interests department, family and children department, women's development department, organizational building and coordination department, propaganda department for the protection of women's rights and interests, family, children, women's development, health, gender equality, etc. Women's federation at county level is also responsible for guiding the establishment and division of responsibilities of grass-root women's federations. For example, the arrangement of women's organizations in Jingchuan County includes: 4 departments within the county's Women's Federation, with one chairwoman, 2 vice chairwomen, 7 staff members and one project assistant at the county level; 15 women's federations, with 15 chairwomen, 61 vice chairwomen, and 449 executive committee members at the township level; 220 women's federations with 215 chairwomen, 479 vice chairwomen, and 2,705 executive committee members at the village and community level. Furthermore, there are 53 women's committees (women's groups) in government agencies and enterprises. It's learnt that the

chairman of the township women's federation shall be a female member of the Party Committee, a full-time vice chairman shall be assigned, the chairman of the village women's federation shall be a female member of the village/community committee. According to the Women's Federation of Sunan, capability building activities were carried out every year to strengthen the abilities of relevant officials in protecting women and children's rights and interests. For example, in 2022, a total of 96 persons in the county participated in training programs aimed at enhancing the capabilities and qualities of women officials; 3 training sessions were conducted, including online training for women's federation chairwomen and executive committee members, new media training, and empowerment training; 3 joint meetings of women's federations were held; and 12 public service activities such as "I am an Executive Committee Member, I am in Service". Furthermore, specialized Women and Children's Rights Tribunals and Anti-Domestic Violence Tribunals were established, presided over by female judges, leverage the advantages of meticulousness, approachability, and easy to communicate in case handling, providing women with more accessible relief channels. The Women's Federation in the county hired professional lawyers and provided 3 sessions of mental health lectures and group counseling, 19 sessions on legal awareness raising, 43 routine women's deliberative sessions, over 80 household visits through platforms like Women's Homes, Women's Micro-homes, and the 12338 Women's Rights Hotline. 15 cases of disputes were received and addressed, and achieved a 100% response rate on the 12338 Women's Rights Hotline. Additionally, two marriage and family mediation rooms along with 16 women's rights service stations were established in the "Women's Homes" and Legal Aid Center with 95 lay assessors and volunteers, and they received 219 visits or calls from women, achieving a 100% satisfaction rate in responses. Over 100 persons sought legal and psychological counseling through the "12338" Women's Rights Hotline. It's confirmed through the investigation that supporting women's development is one of the main tasks of the local women's federations, and a large amount of manpower and financial resources are arranged every year. Take Guazhou County as an example, skill trainings and women employment and entrepreneurship support are provided by county level women's federation every year. In 2022, the Women's Federation supported the establishment of 11 provincial, municipal, and county-level demonstration bases for women in areas such as honeydew melon cultivation, Chinese wolfberry cultivation, greenhouse cultivation, livestock farming, and e-commerce; created 4 innovative studios for women; nurtured 25 leading women entrepreneurs in rural areas; established a dedicated platform for women on the WeChat platform according to the entrepreneurial and employment needs of urban and rural women, published 48 notices of job recruitment information and offered 180 employment positions for women; secured training project funds totaling CNY 510,000 yuan, facilitating the order-based training of 400 persons in the fields of childcare, Chinese cuisine, and Chinese pastry; nurtured 7 female technology envoys; and conducted 45 sessions of events such as "Agricultural Science and Technology Promotion Week" and "Science Knowledge Promotion Services". To assist more urban and rural left-behind women and zero-employment households in achieving local employment and income increase, the County Women's Federation actively secured a provincial subsidy of CNY 120,000 yuan for 3 factories, provided jobs for 139 left-behind women, single mothers, low-income, and disabled women in the factories. Addressing the practical needs of women in urban and rural areas on entrepreneurship and employment, the County Women's Federation conducted thorough investigations, research visits, market connections, and introduced an order-based project, successfully aiding over 400 left-behind women in flexible employment with an average monthly income increase of over CNY 2,500 yuan. In addition, the Women's Federation in Guazhou County actively sought and raised donations of CNY 854,400 yuan from women's federations at various levels and enterprises, provided assistance to 698 poor, disabled, and left-behind women and children.

254. The CABs and disabled person's federations at each county are responsible for information collection and assistance for orphans, minors and old people left-behind, disabled persons and extremely poor persons within the administrative areas. Special financial funds are arranged by government to protect these groups' rights and interests. For example, as of 31 December 2022, there were 41 left-behind elders, 25 left-behind children, 312 households with 596 persons in urban area and 1,379 households with 2,419 persons in rural areas living on minimum living subsidies, 49 households with 53 persons in urban areas and 91 households with 94 persons in rural areas in extremely hardship. To address the needs of such groups, Sunan County has formulated and implemented several policies and measures, including the Notice on Forwarding the Provincial Department of Civil Affairs' Notice on Further Improving the Care of Left-Behind Children in Rural Areas (ZMF [2021] No. 85), Implementation Rules for the Review and Confirmation of Minimum Living Standard Guarantee in Sunan County (SMF [2022] No. 144), Implementation Rules for the Identification of Individuals in Extremely Hardship in Sunan County (SMF [2022] No. 145), Implementation Rules for Temporary Assistance in Sunan County (SZF [2022] No. 49), Notice on Issuing the Implementation Opinions on the

Living Allowance for Disabled Individuals in Difficulties and the Subsidy for Treatment of Individuals with Severe Disability in Sunan County (SZF [2016] No. 159), and Notice on Issuing the Recognition Standards for the Subsistence Allowance for Disabled Individuals in Difficulties in Sunan County (ZBF [2016] No. 200). In terms of the institutional arrangement, "three-tier" linkage mechanisms for left-behind children and left-behind elders and social assistance and verification office and elders assistance and welfare service centers have been set up in CAB at the county level. At least one supervisor for children affairs equipped in each township government and at least one director for children affairs equipped in each village/ community committee. Regular meetings were held each year to organize and deploy work throughout the year, and the care and protection of left-behind, difficult and other special children was included in the annual key tasks of the township government. For example, under the guidance of the CAB, the "1+1+1" township, village and villagers' group caring assistance mechanism for rural left-behind and disadvantaged children has been established in all townships of Zhengning County, assigning 10 children supervisors and 94 village children directors, to undertake activities such as revisiting and screening for left-behind elders, women, and children in rural areas, supervising guardians to fulfill their responsibilities, and concurrently organizing caring assistance initiatives. Additionally, Zhengning County has established one comprehensive elderly care service center in each township and 78 grassroots elderly care service facilities such as mutual aid centers and daytime care centers. In terms of budget arrangement, special funds and routine work funds are arranged and incorporated into the financial budget of county and township levels every year to ensure that relevant management work and support can be implemented. In addition, the qualified "three left-behind" people have been included in the scope of assistances like minimum living security, two subsidies for the disabled, old age allowance, living subsidies for orphans, and welfare lottery funding for education, etc. For example, in Minle County, during the period from January to October 2023, a total of CNY 1,086,000 yuan was granted to 105 orphans and unsupported children as basic living allowances, and CNY 72,500 yuan was granted to 8 eligible orphans as financial assistance under the "School Aid Project".

255. It's learnt from the site survey that CABs at all levels are the competent authorities for the management of the low-income people. A sound monitoring system of the low-income has been established. In terms of the people just lifted out of poverty, which is also a type of the low-income, a complete database of those just been lifted out of poverty and those falling into "three types of target households under monitoring" (households with unstable poverty alleviation, households with sudden and severe difficulties and households prone to poverty) has been established by the RRBs at all levels, under which, those just been lifted out of poverty and those falling into households with unstable poverty alleviation, households with sudden and severe difficulties and households prone to poverty are monitored and covered by government assistance policies timely. Although all regions have been lifted out of poverty in 2020, the local governments still track, record and manage the names and family conditions of the people who have been lifted out of poverty in each village. At the same time, the governments still implement the "four measures" for households lifted out of poverty, namely, responsibility, policies, assistance, and supervision. In this regard, all counties have formulated corresponding policies and measures and made budgetary arrangements to consolidate the results of poverty alleviation and rural revitalization in an effective manner. Take Zhengning County as an example, it formulated a series of policies and guiding documents in 2022, including the Implementation Opinions on Comprehensive Promotion of Key Tasks for Rural Revitalization in 2022, the Key Points for Consolidating and Expanding the Achievements of Poverty Alleviation and Effectively Linking with Rural Revitalization Work in 2022, and the Opinions on Increasing Financial Support to Income-Unstable Households for Industrial Development; signed 26 responsibility agreements, which clearly outlining goals, requirements and detail tasks of each party; established a mechanism for the implementation of key tasks, including the Rural Work Leadership Group, 5 specialized task forces, and 12 dedicated work teams, along with the responsibility system for county-level leaders to liaise with relevant departments, townships and demonstration villages; conducted 53 meetings and over 90 county-level research and supervision sessions; established a "Five-in-One" dynamic monitoring and assistance system, involving proactive applications from farmers, officials' visits and investigations, departmental screenings and prewarnings, social supervisions, and systematic data analysis; helped 48,000 surplus rural laborers in urban and rural areas successfully find jobs through optimizing employment structures, strengthening labor's capabilities and adopting various strategies such as labor transfers, policy incentives, exploring job opportunities, and promoting employment through entrepreneurship, etc.; Regarding the implementation of support measures, the county developed precise assistance plan for each of the 431 households based on the actual conditions, risk categories and development needs, adhering to the principle of "addressing what is lacking", with a focus on education, healthcare, housing security, safe drinking water, and employment, and implemented 1,797 targeted assistance measures related to industries, employment, medical

care, and basic security through coordination with relevant departments, averaging 4.2 measures per household. Additionally, the county allocated subsidies totaling CNY 1.3 million yuan, stimulating the development of 2 townships, 10 villages, 36 cooperatives, 76 family farms, and 1,316 households specialized in beef cattle farming; and distributed industry bonus funds amounted to CNY 24.97 million yuan, benefiting 11,615 households which just been lifted out of poverty. In 2022, Sunan Yugur Autonomous County received a total of CNY 84.7 million yuan for rural revitalization, including CNY 50.18 million yuan from central level, CNY 14.84 million yuan from provincial level, CNY 2.92 million yuan from municipal level, and CNY 15.2 million yuan from county level. In general, the governments expect to take five years transition period to consolidate and expand the achievements of poverty alleviation and provide a smooth transition period for poverty-lifted rural households to become self-reliant and self-improvement through orderly adjustment.

256. **Assessment:** In terms of women's development and protection of women's rights and interests, it can be fully guaranteed through women's federations, women's organizations in enterprises and grass-roots women's organizations. For left-behind minors and old people, the government has established relevant databases mainly through CABs and provided timely assistance through township governments and villages/communities. In terms of the support to poor and low-income families, the national and local governments have established a complete system and mechanism from policies, budgets to institutional arrangements, which can not only protect the legitimate rights and interests of poor and low-income families in various projects, but also effectively manage the support and development of poor and low-income families.

6. Public Participation and Grievance Redress Mechanism

6.1 Public Participation

257. Stakeholder engagement is an important aspect of this ESSA and a requirement of the Bank policy. During the ESSA, stakeholders have been identified subject to the impacts of activities, interest in the activities and power of influence on decisions, mainly including government authorities at different levels, villages and communities, activity implementation agencies, women's federations and other social organizations, affected persons, etc. (see **Appendix 4**). During the ESSA preparation, extensive stakeholder engagements were conducted with provincial and 7 county (district) authorities of Gansu Province in September to November 2023 of virtual and in-person consultation meetings; consultations on the ESSA report with relevant government authorities at provincial and county (district) level were carried out in December 2023.

6.1.1 Initial Participation Activities

258. At the preparation stage, the Bank team and ESSA consulting team engaged with relevant authorities of the Gansu provincial and county (district)-level governments from September to October 2023, covering the Bank's PforR provisions, E&S policies, implementation management practices, operating processes, assessment document preparation, etc.

259. From October 2023, extensive public participation has been conducted in Gansu Province to prepare and improve this report (see **Appendix 5: Stakeholder Engagement**), including consultation meetings of provincial authorities, involving provincial DARA, AHVMB, FGB, Grassland Technology Extension General Station (GTEGS), DEE, DNR, etc. At the county level, Lanzhou New District, Guazhou County and Sunan County of Zhangye City, Jingchuan County of Pingliang City in Gansu Province visited, and FGDs held with government authorities with over 70 participants cumulatively. In addition, information was also collected from 7 project counties (district) for further confirmation. In the various surveys and FGDs as mentioned above, exchanges were made with government authorities, relevant enterprises (large-scale livestock husbandry enterprises, livestock farming zone in the village, livestock farming cooperatives, smallholders, forage planting enterprises, cattle and sheep breeding enterprises, etc.), head of village committees, villager representatives (including 4 ethnic minorities concentrated villages), etc., and sites of livestock farms, animal and plants inspection and quarantine, forage planting, land consolidation project, grassland ecological rehabilitation, livestock and poultry manure treatment and resource utilization facilities, straw processing and other typical activities were visited. These activities cover the following items:

- Responsibilities and organizational setup of each authority
- Prevailing main sectoral policies and regulations
- Scope of implementation, policy requirements, implementation progress, effects and main issues related to livestock breeding, livestock farming, animal and plants inspection and quarantine, grassland ecological protection and rehabilitation, livestock and poultry manure treatment and resource utilization, forage planting, straw processing, waste treatment of animal died of diseases, etc.
- Enterprise scale, recruitment mode, worker benefits, safety and skills training, occupational health hazards and inspection, availability of protective equipment, facility land use approval, EIA, SSRA, safety assessment, geological disasters, management, etc.
- Villager employment, especially participation in livestock farming, forage planting and process projects
- Rotational grazing, balance between capacity of grassland and livestock, issues and suggestions
- Grassland protection and rehabilitation implementation and effects

260. In October 2023, the E&S team also carries out a special visit to four ethnic minorities-concentrated villages in Guazhou County and Sunan Yugur Autonomous County of Gansu Province, and had discussions with village leaders and villagers' representatives. The visits and consultation helped understand the potential impact and benefits of the project on local village residents, their basic social, economic and cultural conditions,

and the conducted project-related actions including information disclosure, public participation, grievance redress mechanism, etc. The consultation indicated that the project will not pose negative impacts on the EM-concentrated villages, and has won wide support of all the visited village who will much benefit from the proposed activities. For example, incentive mechanisms will be established to encourage farmers to implement rotational grazing that no grazing at specific times of the year or to determine the scale of livestock farming based on the capacity of natural grassland, so as to promote the recuperation of degraded grasslands and accelerate the restoration of grassland vegetation. It will not change the nature and tenure of grassland; and the contractual rights of farmers, and would not be implemented on the farmland of any villages or farmers. The implementation and promotion of low-emission livestock production technologies mainly target to existing livestock farms, farming zones, cooperatives and affiliated facilities, and will not involve new construction or expansion of large-scale livestock farms. Therefore, it will not involve new land acquisition; At the same time, activities such as grassland protection and ecological rehabilitation, livestock and poultry manure treatment and resource utilization, forage formulas improvement, technical trainings, and the establishment of “one health” collaborative mechanism will enhance the overall ecological environment of the local area and improve farmers livestock production technologies and standards, which is conducive to the improvement of the livelihood and living standards of local ethnic minority residents(See Appendix 9 for detail).

6.1.2 Public Consultation on the ESSA

261. The draft ESSA was provided to Gansu Province on 20 November 2023 and an initial discussion on the draft ESSA was conducted between the PPMO and the ESSA team on 28 November 2023. The draft ESSA was revised and provided to the PPMO again for public consultation on 12 December 2023. The PPMO then shared the draft ESSA report with all relevant government departments at provincial and county (district) levels to seek their comments and disclosed on government official website for public comments on 14 December 2023. The PPMO organized all relevant provincial and county (district)-level government authorities to have consultation meetings with the ESSA team during the period from 26 to 28 December 2023. The participants include officials from the provincial authorities such as ARAB, AHVMB, FGB, NRB, WRB, EEB, HC, DCPC, HRSSB, CAB, etc., and relevant county-level government authorities, enterprises, community representatives of 7 demonstration counties (district). At the meetings, the PforR and the draft ESSA report were introduced, including the purpose, scope, methods, conclusions, and recommendations of the ESSA. The main concerns of the meetings include:

- 1) Whether the laws and regulations quoted in the ESSA are accurate and relevant.
- 2) Whether the analysis of the laws and regulations is pertinent.
- 3) Whether the description of the organizational setup in the report is accurate, and whether the assessment of institutional capacity is appropriate.
- 4) Whether the conclusions of this report are acceptable; in particular, whether the gaps identified between domestic ESMSs and the Bank’s PforR policy are correct, and if the recommendations proposed are feasible and acceptable.

262. At the meetings, the participants gave positive opinions on the ESSA report, accepted the recommendations, and provided valuable comments on revision, such as validity of some policies, latest institutional arrangements, and organizational responsibilities, etc. The ESSA team listened to, recorded, and studied the comments carefully, and revised the report accordingly. The written feedbacks from the governments and the responses made by the ESSA team are presented in **Appendix 6**.

6.2 GRMs

263. **Existing Program-Level of GRMs** usually include village (community) and enterprise GRMs. The villager (community) GRM consists of three levels: firstly, grievances are reported directly to the relevant PIUs to seek a solution; second, grievances are reported to the village or community committee and resolved by grass-root government, which usually take two weeks; thirdly, grievances are reported to the county PCPBs or the county head’s hotline/mailbox, etc., which includes a mechanism of collection, initiation within 7 days, and solving within two months. In addition, residents can resolve more serious disputes through civil actions at court. An enterprise GRM basically has two aspects: one is workers’ grievances: workers’ grievances are handled through a three-tier labor dispute resolution mechanism, namely, the enterprise labor disputes and

redressing mechanism, the township government's labor disputes mediation center and the county government's labor disputes mediation center. On the enterprise level, workers can seek a solution through the enterprise/factory manager mailbox, or the trade union. If any dispute cannot be addressed satisfactory, the worker can go through the government mediation mechanism, or seek solution by labor arbitration (see Principle #3 under Element 8 in Section 5.4). Second, the enterprise sets up an external relations department, and assigns a contact and a telephone number to collect complaints and suggestions from the public. There are also various channels for the public to report, and track environmental related grievances, such as the "National Ecological and Environmental Complaints and Reporting Platform", the Minister's Mailbox, 12369 hotlines, the mayor's hotline, etc., which give full play to the efficacy of the public's supervision on the environmental management of construction projects.

264. **Assessment:** Based on interviews with village (community) committees and villager (resident) representatives, village (community)-level GRMs are sophisticated in general, and most grievances can be solved effectively at the village (community) level, with very few solved through civil litigation. GRMs for labors of enterprises are quite normative and can solve worker grievances.

7. Conclusions, Recommendations, and Action Plans

7.1 Conclusions

265. The Program aims to improve the grassland management and promote the low emission livestock industry value chain. The PforR will largely improve the regional ecological quality and community welfares in the project area. Provided that activities with high risks have been excluded and the ESSA found the existing E&S systems are effective, the program will not have any major negative E&S impacts, however, it will inevitably have some short-term, site-specific, small-scale, and mitigatable adverse impacts during the implementation. Its overall E&S risk rating is substantial considering that a large variety of activities will be supported in a broad coverage of 7 demonstration counties (district) in Gansu Province and that they would induce diverse E&S impacts.

266. It's identified in the ESSA that proper E&S management systems have been established in China as well as Gansu Province to identify, assess, avoid, mitigate, manage, and monitor the E&S impacts and risks related to the PforR activities, including (1) a complete regulatory system, including applicable laws, regulations, policies, standards, and technical guidelines at the state and local levels; (2) clear implementation mechanisms, including clear administrative procedures, institutional arrangements, and responsibilities for E&S impacts and risk management, and necessary professionals and financial resources; and (3) satisfactory outcome performance of the E&S systems. The random surveys on the past cases in the sample counties (district) show that E&S impacts and risk management measures have been implemented effectively. Based on the assessment, the E&S systems related to the PforR are generally consistent with the requirements of the Bank's PforR policy and guidance.

267. The ESSA has also identified the following areas for improvement:

- 1) For some small sized facilities, including livestock farming zones, although the existing management systems and measures are effective, the identification and management of E&S risks and impacts as well as the public consultation and information disclosure were not adequately reflected in the project documents.
- 2) The environment and sanitary conditions of some small-medium livestock farming zones are poor due to inadequate manure treatment and utilization and animal diseases control facilities, and some operators of them exhibit a lower adoption rate of health and safety, environmental protection management measures due to inadequate operational procedures and internal management systems, and are supervised and inspected inadequately by health authorities. There is a need to upgrade pollution control and animal diseases & zoonotic diseases control facilities, improve their internal management systems and further strengthen the health and safety (including animal welfare) awareness-raising and environmental protection training as well as the daily supervision.

7.2 Recommendations

268. Against the above-mentioned E&S issues, following recommendations have been proposed:

Recommendation 1: For small sized facilities, including livestock farming zones, clearly document aspects of E&S risks management process and measures in project feasibility studies, design documents, etc., including risk identification analysis and mitigation measures, budgets, and meaningful stakeholder consultations;

Recommendation 2: Document cases of the good practices and experiences of various counties in controlling pollution from livestock production, and in preventing & controlling animal diseases & zoonotic disease, and animal welfare, share with operators of small-medium livestock farming zones for them to prepare Environmental & Safety Code of Procedures (ESCOP); and

Recommendation 3: Strengthen the publicity, education, supervision and management of the prevention and control of animal diseases, zoonotic diseases, health and safety, environmental protection training and management of the operators of small and medium-sized livestock farming zones, as well as communities where the "off-site grazing" are practiced.

7.3 Action Plan

269. To effectively execute the above recommendations, following actions should be included in the Program Action Plan (PAP) and taken during the PforR implementation.

Table 7-1: E&S Action Plans

No.	Action	Responsibility	Timing for Completion	Completion Measurement
1	For small sized facilities, including livestock farming zones, clearly document aspects of E&S risks management process and measures in project feasibility studies, design documents, etc.,	PMOs; local relevant government authorities; PIUs	At the preparation stage	<ul style="list-style-type: none"> Information of E&S risks management process and measures are included in project feasibility studies, design documents, etc., at the preparation stage, covering E&S risks identification, analysis, mitigation measures and budget in detail; Stakeholder feedback and concerns are considered and addressed in the documentation; Trainings and capacity building related to E&S risks management for PIUs are conducted before and during the implementation; Records of stakeholder participation, E&S risks identification, analysis, and management measures for each project activity shall be reflected in the semi-annual Program progress report for World Bank review.
2	Document cases of the good practices and experiences of various counties in controlling pollution from livestock production, and in preventing & controlling animal diseases & zoonotic diseases and animal welfare, share with operators of small-medium livestock farming zones for them to prepare Environmental & Safety Code of Procedures (ESCOP)	PMOs; local relevant government authorities; PIUs	During the implementation	<ul style="list-style-type: none"> Cases of good practices and experiences from various counties are systematically documented with clear and detailed insights into pollution control measures, prevention of animal diseases, and zoonotic disease control; The documented information is easily accessible to or disseminated to operators of small-medium livestock farming zones by various channels; Environmental & Safety Code of Procedures (ESCOP) is prepared by each of small and medium scale farming zones; Small and medium-sized farming zones (especially those meeting the scale requirements) address or equip with essential animal safety, disease prevention and control facilities, and manure treatment facilities. Incorporate this into the Program implementation plan (PIP); Report the implementation progress of above activities in the semi-annual Program progress report to the World Bank.
3	Strengthen the publicity, education, supervision and management of the prevention and control of animal diseases, zoonotic diseases, health and safety, animal welfare and environmental protection training and management of the operators of small and medium-sized livestock farming zones, as well as communities where the "off-site grazing" are practiced.	PMOs; local relevant government authorities; PIUs	During the implementation	<ul style="list-style-type: none"> Training programs are implemented in each program county (district) at least twice each year; The PIUs record the information of publicity, education and training activities, including date, location, contents, participants, photologs, etc. and report in the semi-annual Program progress report to the World Bank.

8. Management and Monitoring

270. As per the Bank PforR Policy³⁶ and the agreements between the Bank and the Borrower, the two parties will manage and monitor the PforR implementation from different perspectives.

8.1 The Borrower

271. The Borrower is responsible for implementing the PforR, monitoring the implementation progress, evaluating the indicators, and performing relevant commitments as per the legal documents including the PAP. Such responsibilities include that the Borrower should keep the E&S management systems effective, implement monitoring plans, and identify and solve issues in a timely and effective manner. The Borrower should:

- Prepare and implement the environment and social risk management measures defined as the Program Operational Manual (POM³⁷).
- Implement the agreed E&S actions as per the PAP and maintain the E&S management systems and the implementation capacity as recommended by the ESSA.
- Submit semiannual monitoring reports on the PAP implementation to prove continuous compliance with the applicable E&S management mechanism. The monitoring reports should include the reflection of implementation of the social risk identification, screening, management, documentation etc.
- Evaluate and audit the system performance regularly as necessary.
- Review the performance of GRMs (both village-level and enterprise level), procedures, and results regularly, and include specific grievance cases in the progress reports.
- Consult the Bank for any change made to the E&S systems during implementation.

272. Gansu PPMO is responsible for the overall management of the PforR activities. The county (district) level CPMOs are responsible for overall implementation of county-level activities. The PIUs may include the ARABs, AHVMBs, FGBs, NRBs, WRBs, EEBs, etc. and they are also responsible for implementing the proposed E&S actions. The PIUs should have specific divisions and staff to implement the E&S actions, report to the county-level CPMOs, and provide information to the PPMO and the Bank for supervision and monitoring.

8.2 The World Bank

273. The Bank is to provide supports to the implementation of the PforR and oversee the E&S management performance against the ESSA requirements especially the PAP. The Bank will monitor the Borrower's commitment to compliance with E&S risk management, including actions to strengthen institutional capacity. The Bank will evaluate the PforR performance based on the risk assessment conducted at the preparation stage and hence help the Borrower handle expected and unexpected risks and give recommendations to manage the risks. The Bank will also conduct field visits and provide supports to the PIUs and stakeholders and review audit and progress reports. The Bank team will submit memorandum to the Bank management group to report the PforR implementation performance regularly, by the way of document review, consultation with the PIUs and stakeholders, field visits, etc. The main activities are as follows:

- Verify the implementation of agreed actions, including any agreed capacity building activity and any designated E&S mitigation measure.
- Conduct regular monitoring to ensure that the Borrower's environmental and social management system (ESMS) performance at the implementation stage is accepted by the Bank.
- Identify any extra management measure that may be taken to underperformance or any unexpected challenge during implementation.
- Ensure the effective operation of the GRMs through semiannual reports.

³⁶ As per the Bank's PforR Policy (paragraph 12), the Borrower is responsible for preparing and implementing the PforR Program. The PforR Program's scope and objectives and the Borrower's contractual obligations to the Bank are set out in the legal agreements with the Bank. These obligations include the requirement to carry out the PforR Program with due diligence, and to maintain appropriate monitoring and evaluation arrangements (including credible disbursement-linked indicator verification protocols), fiduciary and environmental and social PforR Program Systems, and governance arrangements.

³⁷ The POM is a stand-alone document when the ESSA is finalized. It will specify each gap and corresponding action, dedicated organization and person-in-charge, roles and responsibilities, training arrangement, budget required, timeline. Detail of the POM will be confirmed with the PPMO and CPMOs.

Appendix 1: Boundary of Government Program and the PforR

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
(1) Optimization of the development layout to steadily improving the productivity of agriculture and livestock industry.	Standardized and scaled livestock development	Upgrade and renovation of emission reduction facilities in large-scale intensive livestock farms, bases, and parks. For example, the Lanzhou New District proposes to (i) establish a smart management system and an intelligent forage processing facilities for existing ecological livestock industrial parks; (ii) construct manure treatment facilities for the existing ecological livestock farming project (phase III), including the installation of a set of ecological manure collection and utilization system and supporting facilities; etc.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Strengthening the construction of livestock farms and farming zones by emphasizing green standardization, regularization, and the adoption of low-emission technologies, while also promoting technological and facilities upgrades to achieve low emissions in livestock farming. For example, (i) the Xihe Cattle Farming Demonstration Project in Lingtai County , involving the construction of 8 new cattle farming zones, 126 individual cattle sheds and affiliated facilities. Upon project completion, the cattle inventory will exceed 1,340; (ii) In Sunan County, it's proposed to construct 100 cattle and sheep pens; (iii)_in Jingchuan County , it's proposed to provide subsidies to livestock farming smallholders, cooperatives and zones for the reconstruction and expansion of relatively concentrated, standardized and scaled livestock farming pens; (iv) The construction of cattle farming demonstration zones in the Xiqu River and Heihe River areas of Lingtai County , comprising 9 farming zones and several big farmers; (v) Minle County proposes to provide subsidies to livestock farming zones and big farmers in 10 townships for the establishment, renewal, and expansion of standardized and scaled farming facilities; (iv) Guazhou County proposes the establishment of a medium-sized, standardized beef cattle farming facility in Suoyang Township.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Construction of new large-scale intensive livestock farms, bases, or parks, with a capacity exceeding 1,000 head of cattle or equivalent livestock, e.g., (i) the construction project of a 100,000 head of beef cattle industrial zone in Zhengning County, and (ii) the construction project of a 6,000-head high-yield dairy cattle farm in Lingtai County ; etc.	None	None	Potentially high E&S risks

<p align="center">Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development:</p> <p align="center">Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)</p>			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
	Constructing forage crops plantation bases	In agricultural farming areas: Support the plantation of forage crops like clover and silage corn, using water-saving and energy-saving irrigation technologies, as well as implement pilot projects of grain-for-feed practices and integrated crops-livestock farming. For example: (i) The Grain-for-Feed Conversion Project in Zhengning County , which involves expanding the forage crops plantation with an additional 50,000 mu (approximately 3,333 ha). (ii) The 2024 High-Yield and High-Quality Clover Planting Base Demonstration Project in Guazhou County , aiming to establish three high-yield, high-quality clover demonstration bases covering an area of 5,000 mu (approximately 333 ha). (iii) The proposed construction of a 5,000 mu (approximately 333 ha) forage crop planting base in the Lanzhou New District through land consolidation. (iv) In Sunan County , it's proposed to construct a 20,000 mu large-scale, specialized, and high-quality forage production base in rural areas, along with the demonstration and promotion of integrated water-fertilizer efficiency increasing technologies on 20,000 mu of corn and forage planting areas. (v) the construction project of the Lingtai County forage processing base (including the purchase of equipment for silage harvesting and processing for cooperatives) etc.	Same as the left column	RA1- Promote Sustainable Grassland Management and RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Construction of artificial forage plantation bases that are water-intensive and requiring the development of new water sources and the construction of large-scale water irrigation facilities.	None	None	Potentially high E&S risks
	Strengthening the technological support in livestock sector	Introducing and breeding high-quality, efficient and low-emission livestock breeds. e.g., (i) establishment of a breeding laboratory, importing 200 high-quality fine-wool ram sheep and breeding an additional 200 fine-wool ram sheep, introducing 150 high-quality wild blood yaks, and breeding 100 excellent yaks, and purchasing 20,000 doses of frozen beef cattle semen in Sunan County . (ii) implementation of a cattle performance testing capacity enhancement project, including the construction of a testing facility, a cattle performance testing shed, 5 functional testing centers such as nutrition testing, genetic testing, breeding experiments, health maintenance and a data processing center, one digital performance measurement platform for growth performance and digital management systems of breeding within existing farms in Jingchuan County . (iii) establishment of an early-maturing beef cattle conservation breeding base in Zhengning County . (iv) subsidies for foundational breeding cows in Minle County .	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
		Enhancing dietary formulas for balanced nutrition and establishing precision feeding facilities to reduce the intestinal methane emissions per unit of livestock and poultry products and improve the grassland livestock industry transformation and upgrading pilot project in Sunan County , which encompasses the construction of 10,800 m ³ of silage pits (pools), 60 forage storage sheds, each with an area of 200m ² , a 12,000m ² of grass processing and distribution center, a 1,000m ² of forage warehouse, and 6 sets of equipment, including integrated silage machines and electric forklifts, 5000m of water supply pipelines and 15,000m of road.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Establishing a big data platform to promote the application of modern information technologies such as the Internet of Things (IoT), cloud computing, and mobile internet in various stages of livestock production, distribution and slaughter. For example, the construction project for the National Digital Livestock Innovation and Application Base (Cattle) in Jingchuan County , including the installation of automated and precise environmental monitoring systems at the Dingkang Cattle Farm and the Fengtaidong Cattle Farm, the deployment of digital precision feeding management systems, livestock and poultry disease monitoring and early warning systems, digital breeding management systems, and a digital monitoring center at the county AHVMB.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
	Improving livestock products processing	Applying low emission technologies to renovate the existing slaughter and processing enterprises, complemented by enhancing facilities and equipment for cutting and processing, cold storage and freezing, cold chain distribution and wholesale market, etc. For example, (i) construction of an e-commerce trading center, 2 agricultural product sorting, processing, and packaging workshops, a logistics transfer and distribution station, a temperature-controlled cold storage, a light food by-product processing and packaging plant, an administrative building, a raw material warehouse, and a wastewater treatment station, 7 cold chain delivery vehicles, and pre-packaged vegetables and beef jerky production lines with supporting facilities in Sunan County . (ii) establishment of an automated precise environmental monitoring system and a digitized precision feeding management system at existing livestock farms in Jingchuan County . (iii) construction of an automated slaughterhouse, cold storage, feed processing facility, manure resource utilization center, and a beef trading center in Suoyang Township, and the purchase of relevant facilities and equipment in Guazhou County .	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Construction of large-scale livestock slaughtering and processing facilities (with a capacity of exceeding 100,000 head of pigs, 10,000 head of cattle, 150,000 head of goats, 10 million of poultry)	None	None	Potentially high E&S risks

<p align="center">Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development:</p> <p align="center">Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)</p>			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
		Construction of modern livestock industrial parks.	None	None	Potentially high E&S risks
	Strengthening animal health and diseases control, improving whole value-chain food safety management practices	Establishing food safety traceability systems. for example, the Construction Project of a Quality Traceability System Across the Full Industry Chain of Pingliang Red Cattle in Jingchuan County , including the application of IT to establish a comprehensive product identification and traceability system that covers the entire process from breeding, standardized farming, processing, cold chain logistics, sales, and post-sales service. This system is designed to create end-to-end monitoring mechanisms and achieve full traceability management for Pingliang Red Cattle throughout the entire supply chain.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Constructing or improving the county-level animal diseases inspection and quarantine facilities and agricultural products quality testing laboratory (BSL-2 or below), strengthening the capacity of county-level animal husbandry and veterinary management institutions in the prevention and control of animal diseases. For example, (i) the renovation of the Border Animal Epidemic Monitoring Station and the upgrading of the Animal Disease Prevention and Control Laboratory (BSL-2) in Guazhou County ; (ii) the establishment of an animal diseases prevention and livestock product quality and safety management system in Jingchuan County , which includes the construction of a new Major Animal Epidemic Early Warning and Command Center, 2 livestock and poultry epidemic monitoring stations at county entrance and exit sites, the renovation and improvement of the county-level veterinary laboratory, the construction of a PCR laboratory, a veterinary drug and veterinary drug residue testing center, an animal epidemic inspection station at Fengkou road, and Pingliang Red Bull Standardized Quality Inspection Center. (iii) establishment of a 100km electronic fence, 100 fixed epidemic prevention injection barriers, and 34 mobile epidemic prevention injection barriers, purchase of 7 vaccine transport vehicles, 34 sets of mobile disinfection sprayers, continuous injectors, and refrigerated boxes, customized signage, etc. livestock product certification, and the establishment and enhancement of a comprehensive quality and safety traceability information system in Sunan County .	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Quality certification of livestock products, such as applying livestock product certificates with green and organic/low-emission indications and system certification.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
		Strengthening the assessment, management, and communication of public health and food safety risks along the dairy and meat value chains. Support will be provided to better communicate behavioral and environmental risks for disease occurrence or outbreaks, development of risk communication tools for influencing health, food, and hygiene behaviors, campaigns to communicate the risks of human exposure to wildlife, and others.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
	Other Activities	Activities like optimizing trade structures, implementing waste segregation, constructing new energy bases, enhancing urban environmental infrastructure, and conducting green transformations of transportation technologies and facilities.	None	None	Not a PforR priority
(2) Preservation of cultivated land resources to promote sustainable land use in agriculture (including grasslands)	Reducing or restoring cultivated land to grassland at appropriate level	Restoring the cultivated land to forest or grassland, restoring the grazing pastures to grassland.	None	None	Potentially high E&S risks
	Other Activities	Maintaining the total area and improve the quality of cultivated land, constructing high-quality farmland, etc.	None	None	Not a PforR priority
(3) Implementation of high-efficiency and water-saving practices to ensure agricultural water security.	Promotion of high-efficiency water and energy saving technologies	Establishing resource efficiency (energy, water) value chain through application of green and renewable energy, energy and water saving technologies and equipment/machines along the value chain, such as farming machinery, feed milling, livestock slaughtering and meat processing, cold chain storage and logistic transportation;	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
	Construction of water-saving irrigation facilities	Constructing or renovating large and medium-sized irrigation backbone projects incorporating water-saving facilities.	None	None	Potentially high E&S risks
	Other Activities	Activities related to water resource management, the construction of rainwater collection systems in farmland, and the establishment of rainwater collection pits and other facilities.	None	None	Not a PforR priority

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
(4) Remediation of environmental pollution to improve the agricultural and rural environment.	Livestock and poultry manure treatment and utilization	Upgrading or constructing low emission manure treatment and utilization facilities for livestock and poultry farms (zones, cooperatives). e.g., (i) the Green Circular Agriculture Construction Project in Jingchuan County , which encompasses the construction and upgrading of livestock and poultry manure treatment and utilization facilities in towns such as Yudu, Dangyuan, Gaoping, and Yaodian, as well as at scale livestock farms and big farmers. (ii) construction of 5 manure storage sheds and 8 harmless waste treatment facilities in Sunan County .	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Constructing organic fertilizer processing facilities, such as the Green Circular Agriculture Construction Project in Jingchuan County , which involves establishing one centralized organic fertilizer processing plant in both the southern and northern plateau areas to enhance the resource utilization rate of manure and waste.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
	Construction of collection, transfer and sanitary treatment facilities for livestock and poultry died of diseases	Establishing waste treatment facilities at the farming, slaughtering/processing and distribution stages of the value chain to improve waste management and effective utilization of residues and to reduce emissions. For example, the construction project of the Pingliang Harmless Treatment Center for Animals Died of Diseases, which includes a new production line for the harmless disposal of animals died of diseases. The project is planned to be constructed in two phases: Phase one involves an investment of RMB 21 million yuan for the construction of 2 new buildings with a total area of 1,134m ² , a 30m ² of cold storage, 450m ² of offices and technical rooms, and 246m ² of auxiliary facilities, one set of equipment for harmless disposal, 8 aseptic transport vehicles for livestock and poultry died of diseases, and one set each of exhaust and wastewater treatment equipment. Phase two, with an investment of RMB 15 million for one more set of equipment for harmless disposal.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
	Integrated utilization of crops straw	Establishing straw feed processing factory to enhance the utilization of crops straw and increase the supply of forage. For example, the Forage Processing Base Construction Project in Lingtai County , which involves the procurement of 2 self-propelled silage harvesters and 26 self-propelled straw pickup and baling machines for forage specialized cooperatives in 13 townships.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
	Other Activities	Activities like the prevention and control of non-point source pollution from farmland, the construction of ecological ditches and wastewater purification facilities in farmland, plastic film recycling and utilization, regulation of heavily polluted cultivated land, the development of village remediation plans, and rural development.	None	None	Not a PforR priority
(5) Restoration of agricultural ecosystems to improve ecological functionality (including grassland ecosystems and biodiversity)	Sustainable grassland resources protection	Implementing seasonal livestock grazing, rotational grazing, and off-site grazing (namely, during the period from October to March of the following year, farmers in pastoral areas graze their livestock by leasing post-harvest straw fields in agricultural areas), to ensure the implementation of grass-livestock balance management system.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Optimizing livestock structure, accelerating livestock turnout and promoting confined feeding.	Same as the left column	RA1-Sustainable Grassland Management	
		Preparing sustainable community (or village) grasslands management plans, to encourage farmers self-supervision and self-management for proper unitization of grassland resources.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Conducting biodiversity conservation, such as the establishment of a comprehensive system for grass germplasm resources protection and utilization; conducting surveys on grass species resources; creating a preservation system integrating species banks, nursery, and habitat protection; developing a technical system and platform for collecting, preserving, evaluating, identifying, innovating, and sharing information about grass species resources; introducing, domesticating, breeding, and preserving grass species resources, with a focus on high-quality grass species, particularly native and prevalent grass species; strengthening regional trials of grass varieties; establishing a catalog of recommended grass species and testing technical standards; and enhancing the protection, utilization and quality supervision of grass species resources.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Conducting grassland surveys, establishing a grassland monitoring system, and making extensive use of remote sensing satellite data to build a space, air, and earth integrated grassland monitoring network.	Same as the left column	RA1- Promote Sustainable Grassland Management	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
		Other activities like the development of grassland protection, restoration, and utilization plans, the establishment of a system for natural grassland reserves and grazing banning areas, enhancements to the grassland contracting and management system, reforms in the use of state-owned grassland resources, and the promotion of grassland tourism.	None	None	Not a PforR priority
	Grassland ecological restoration	Implementing grassland ecological protection and restoration projects through various measures, such as short-term grazing bans, reseedling, soil loosening and fertilization, rodent and pest control, saline-alkali land rehabilitation, irrigation, etc. to promote the recovery of grassland vegetation. For example: (i) the Grassland Vegetation Restoration Project in Sunan County , involves sowing and reseedling grass seeds on natural grasslands in some rural pastoral villages; (ii) the Grassland Ecological Restoration and Management Projects in Guazhou County , including the rehabilitation of up to ten thousand mu degraded grasslands through enclosing, breaking up saline-alkali crusts (slashing through the turf), transplanting seedlings manually (with drip irrigation facilities), and reseedling; (iii) the Forestry and Grassland Ecological Protection and Restoration Projects in Minle County , involves rodent and pest control, etc.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Restoring the cultivated land to grasslands. Whole-village grazing bans, permanent grazing bans, or large-sale and permanent relocation and transition of farmers due to grazing bans.	None	None	Potentially high E&S risks
		In pastoral areas and agropastoral mixed areas: establishing artificial pastures and high-quality forage bases utilizing climate smart technologies. For example: (i) the Water Conservation and Ecological Restoration Project in the Northern Foothills of the Qilian Mountains in Sunan County , Zhengye City, Gansu Province, involves the cultivation of 13,500mu of artificial pastures and the reseedling and improvement of 200,000 mu degraded grasslands; (ii) the 2023 Grassland Ecological Restoration and Management Project by using Pre-approval Central Forestry Reform and Development Fund in Guazhou County , including the construction of 1,000mu of artificial pastures; (iii) Degraded Grassland Restoration and Grassland Health and Degradation Assessment Projects in Minle County ; etc.	Same as the left column	RA1- Promote Sustainable Grassland Management	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
			Activities to be included in the PforR	Related result areas of the PforR	
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs			
		Establishing environment management systems and harmful organisms prevention and control systems. For example, the application of advanced monitoring technologies such as intelligence, aerial remote sensing, drones, and radar to intensify monitoring efforts during critical periods, in key areas and for significant grassland biological hazards; strengthening emergency response measures for grassland harmful organisms through promotion of green control measures like biopesticides, plant-based pesticides, natural predators control, artificial and physical intervention measures, and ecological management, and expanding the scope of integrated prevention and control areas; and establishment of comprehensive management and green control demonstration areas. E.g., the activities proposed in Sunan County , including the establishment of grassland environmental supervision and incentive system, construction of 10 grassland monitoring stations, the purchase of 2 unmanned aerial vehicles for data collection, and the construction of a data analysis center, as well as implementation of comprehensive rehabilitation of 600,000mu of degraded grassland, rodent control of 100,000mu, pest control of 100,000mu, and poisonous insect control of 50,000mu, and the investment of 300,000 yuan to carry out the Grassland Harmful Organisms Monitoring Capability Enhancement Project, which includes the construction of laboratories and fixed monitoring points for grassland rodent and pest control.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Establishing grassland fire and disaster prevention system, e.g., the maintenance of 120km of existing grassland fire prevention access roads and buffer zones, etc.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Large -scale construction or expansion of grassland or forest fire prevention corridors out of the existing footprint (over 70ha and require the approval from National Forestry and Grassland Administration Bureau).	None	None	Potentially high E&S risks

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
(6) Establishment of institutional guarantee systems (provincial activities and demonstration in project counties)	Establishing and improving legal system	Establishing and implementing incentive systems (subsidies) to promote the sustainable grassland management and low-emission livestock development technologies and practices. For example, (i) the Guazhou County Grassland Ecological Protection Subsidy and Reward Policy, planning to disburse CNY 13.265 million yuan of grassland ecological subsidies to totaling 16,495 households of farmers; (ii) the 2023 Jingchuan County Cattle Industry Development Subsidy Project, providing subsidy to livestock farming cooperatives, enterprises, smallholders who purchased at least 3 high-quality cows; (iii) Subsidies to livestock farmers for purchase of cow in Minle County ; (iv) Subsidies are provided in each project county to encourage livestock farming zones/smallholders to purchase animal health insurance and the harmless disposal of animals died of diseases; etc.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
		Improving the policies and technical standards: identify the regulatory and standards gaps for promotion and scale-up of low emission livestock production, processing and logistics and support work for closing these identified gaps, such as sustainable grassland management and low emission technologies and practices. When necessary, developing a regulating framework for carbon trade.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
		Establishing cross-sectoral collaboration mechanism between veterinary services, public health and environment (wildlife and forestry) departments.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
	Establishing a green technology innovation system	Support review and strengthening of the existing livestock sector Measuring, Reporting and Verification (MRV) systems, as well as support development of new MRV protocols for GHG emissions in grassland areas. Establishing the new technologies application system for green value chain, e.g., the establishment of a green development model of “fine breed selection and breeding+efficient reproduction + nutrition control + precision feeding + comprehensive prevention and control of diseases + standardized production + marketing and branding” for the whole industry chain of livestock development in Sunan County , etc.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs	Activities to be included in the PforR	Related result areas of the PforR	
		Developing GHG emission measurement APP for grazing livestock, to raise farmers' awareness on GHG emission source and level.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
		Developing a database of nutrient contents of seasonal grass species, legume and grass ratio, and feed value table to use for supplemental feeding formulation	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Developing easy-to-use low methane emission diet formulation app for grazing livestock	Same as the left column	RA1- Promote Sustainable Grassland Management	
	Disseminating, training and technologies promotion	Grassland Management Promotion and Training, including awareness raising and technology training programs on fire prevention, disease and pest control in grasslands, and the management of harmful animals like rodents and hares through various channels and levels.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Training on food safety: promoting science-based livestock farming and food safety practices, such as promoting on-farm biosecurity, responsible use of antibiotics, reducing human, animal and wildlife interface, improve milk and meat quality through tailored capacity building to farmers and enhanced extension service delivery.	Same as the left column	RA2- Increased Sustainability and Reduced Emission from the Livestock Sector	
		Trainings on smart agricultural technologies.	Same as the left column	RA1- Promote Sustainable Grassland Management	
		Promotion and training on precise feeding and low emission livestock technologies and practices.	Same as the left column	RA2-Increased Sustainability and Reduced	

Government Program: the National Sustainable Agricultural Development Plan (2015-2030) and sector plans for Gansu Sustainable Agricultural Development: Implementation Opinions of the General Office of the People's Government of Gansu Province on Strengthening Grassland Protection and Restoration under The 14th Five Year Plan for Forest and Grassland Protection in Gansu Province (2021-2025), Notice of the PGGP on Accelerating the Establishment and Improvement of the Implementation Plan for a Green, Low carbon and Circular Development Economic System (2025) and Notice of the General Office of the PGGP on the Implementation Plan for Optimizing and Upgrading the Agricultural Industrial Structure Using the Breeding Industry as the Lead (2025)			The PforR		Reason for non-inclusion
			Activities to be included in the PforR	Related result areas of the PforR	
Planning Areas	Categories of developments	Typical activities under provincial and county-level government programs			
				Emission from the Livestock Sector	
		Raising awareness and understanding of carbon trading markets among livestock producers in the grassland areas and the public agencies responsible for implementing the MRV protocols.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
		Strengthening the support to and promotion of One Health concept. This could be achieved by reinforcing cross-sectoral collaboration and communication between veterinary services, public health, and environment (wildlife and forestry), reinforcing the control of drugs residues, and promoting best practices for responsible use of antibiotics.	Same as the left column	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	
	Other Activities	Activities like creating a green finance support system, advancing reforms in green trading markets, developing infrastructure for state-owned forest farms, reforming forest and grassland contractual management rights and paid usage systems, and enhancing the performance evaluation system, etc.	None	None	Not a PforR priority

Note: The examples listed in the table serve as represent illustrative examples of typical activities. It is indicated that activities of such types can be included within the boundaries of the PforR. These examples should not be interpreted in the traditional concept of Investment Project Financing (IPF) with specifically defined construction content and scale.

Appendix 2: E&S Risks/Impacts Assessment

Typical activities	Likely E&S effects	E&S contextual risks	Institutional capacity and complexity risks	Political and reputational risks	Overall risk ranking
RA 1 Promoting Sustainable Management of Grasslands					
<ul style="list-style-type: none"> Develop sustainable community (or village) grasslands management plans 	<ul style="list-style-type: none"> These soft activities (or TA) will not involve any civil works, and will not basically have direct negative environmental and social impacts. The implementation of community/village grassland management plans may induce downstream activities with indirect E&S impacts, e.g., building fixed sheds, hayshed, etc. facilities will generate temporary, site-specific, limited environmental impact caused by dust, noise, solid waste, wastewater, topsoil disturbance, soil erosion, etc. These impacts are predictable and can be mitigated through application of known technologies and measures. The downstream activities may reduce the number of cattle or sheep raised by farmers/herders with certain economic losses. In accordance with domestic procedures, no plan EIA will be required due to the small scope of village plan with relatively simple and small-scale downstream activities induced. Therefore, impacts of such plans will not be large. Risk is moderate. 	<ul style="list-style-type: none"> The activities will be taken place in grasslands, involving forest and grassland ecological function zones, but will not include specific construction works and therefore no environmental sensitive context is involved. The activities will be taken place in pastoral areas where ethnic minorities live in compact communities Risk is moderate 	<ul style="list-style-type: none"> The activities will involve ARABs, FGBs, NRBs, EEBs, local communities/villages committees, etc., requiring cross-sectoral collaboration. Risk is moderate 	<ul style="list-style-type: none"> The activities are in line with national and local laws, regulations, policies and procedures with no political risks. The activities are conducive to increasing eco-environment management capacity and benefiting local residents and will be widely supported by the public with no reputational risk. Risk is low 	Moderate
<ul style="list-style-type: none"> Apply climate-smart agricultural (CSA) technologies in grasslands management Restore degraded grasslands where grass-livestock balance system implemented Apply CSA technologies in artificial forage plantation provide safeguard and supporting technical measures for pest and 	<ul style="list-style-type: none"> The construction activities of grassland ecological restoration, grasslands CSA facilities, artificial grassland cultivation, grassland fire prevention and disaster prevention facilities, grassland monitoring facilities and other construction activities will involve short-term and limited social impacts, such as temporary land use, labor employment, construction safety risks, etc. Forage land development may involve land transfer, installation of water-saving irrigation or integrated water-nutrients irrigation facilities; cropping measures for managing water, nutrients and crop pest control during cultivation. Through the application of such technologies as high-efficient water saving or integrated water-nutrients irrigation technologies and actions on reduced use of chemical fertilizer and pesticides, unified pest control serviced provided by specialized organizations, etc., water consumption, use of chemical fertilizer and pesticides can be effectively reduced 	<ul style="list-style-type: none"> The activities will be carried out on the original land type and will not change the nature and use of the land Some activities may be implemented within the ERL or nature protected areas. But the nature of the activities is allowable, within the list for sectoral access in key ecological functional zones. Even 	<ul style="list-style-type: none"> The activities will involve NRBs, FGBs, EEBs, ARABs, WRBs, etc., requiring cross-sectoral collaboration. Risk is moderate 	<ul style="list-style-type: none"> The activities are in line with national and local laws, regulations, policies and procedures with no political risks. The activities are conducive to increasing eco-environment management capacity and benefiting local residents and will be widely supported by the public with no reputational risk. Risk is low 	Substantial

Typical activities	Likely E&S effects	E&S contextual risks	Institutional capacity and complexity risks	Political and reputational risks	Overall risk ranking
<p>fire prevention for grassland biodiversity conservation</p>	<p>with no impact on re-allocation of water resources and significant adverse E&S impacts.</p> <ul style="list-style-type: none"> • During grassland ecological restoration, short-term grazing bans may be practiced to local farmers/herders whose contracted grasslands are closed for grass restoration. But soon after the completion of restoration activities, farmers/herders will be able to continue grazing on the restored grassland. So, the activities will have less impact to their incomes. • The construction activities will involve short-term and limited environmental impacts, such as dust, noise, solid water, wastewater, topsoil disturbance, soil erosion, etc. These impacts are predictable and can be mitigated through application of known technologies and measures. • Ecological restoration in nature reserves within the ERL will cause certain short-term disturbance to the natural habitat. Therefore, technical assessment and approval of restoration plans should be carried out as required, construction management should be strengthened, ecological protection measures should be implemented, and adverse impacts on the natural habitat should be reduced. • During operation, grassland management involves risks such as pests, diseases and fires, but these risks/impacts can be mitigated through proper management measure. • Risk is substantial. 	<p>though, it is still necessary to carry out careful design on activities triggered ERL, special assessment of the ecological impact of the activities to the protected areas, etc., and subject to the strict expert technical review and government approval procedures to ensure compliance with the ERL protection requirements.</p> <ul style="list-style-type: none"> • The activities will be taken place in pastoral areas where ethnic minorities live in compact communities • Risk is substantial. 			
RA 2 Increased Sustainability and Reduced Emissions from Livestock Sector					
<ul style="list-style-type: none"> • Construction or upgrading livestock breeding and farming facilities run by enterprises, cooperatives, smallholders who adopt low-emission technologies practice, undertaking livestock certificate with green 	<ul style="list-style-type: none"> • Building up upgrading livestock production facilities and supporting facilities involve the FALU, mainly unused land, construction land, etc., or a small piece of cultivated land, or the transformation on the basis of existing facilities, and does not involve the change of land type. • The construction activities will involve short-term and limited social impacts, such as temporary land use, labour employment, construction safety risks, etc. • The construction activities will involve short-term and limited environmental impacts, such as dust, noise, solid water, wastewater, topsoil disturbance, soil erosion, etc. These impacts 	<ul style="list-style-type: none"> • The activities sites are mainly in pastoral areas, rural areas and quasi-urban areas, do not involve important natural habitats that have not been disturbed by human beings, and only involve experimental zones of nature reserves of a very small scope and 	<ul style="list-style-type: none"> • The activities will involve ARABs, AHVMBs, NRBs, EEBs, WRBs, Industrial & Communication Bureaus, MSAs, HCs, DCPCs, DRCs, FBs, etc., requiring cross-sectoral collaboration • Risk is substantial. 	<ul style="list-style-type: none"> • The activities are in line with national and local laws, regulations, policies and procedures with no political risks. • The activities are conducive to reduce emission, improving eco-environment, improving livestock productivity and efficiency and quality & safety of agro-food. The 	<p>Substantial</p>

Typical activities	Likely E&S effects	E&S contextual risks	Institutional capacity and complexity risks	Political and reputational risks	Overall risk ranking
<p>and organic/low emission indicators</p> <p>Upgrade the livestock slaughtering processing, cold chain logistics and market facilities</p> <ul style="list-style-type: none"> • Upgrade livestock & poultry manure treatment facilities for livestock farms/zones/smallholders. • Construct straw for forage use processing facilities • Increase animal health service capacity by equipping veterinary service labs and agro-food quality testing labs at county level • Collect, transfer and sanitary disposal of dead and diseased animals 	<p>are predictable and can be mitigated through application of known technologies and measures</p> <ul style="list-style-type: none"> • Operation of the constructed facilities involve health and safety risks to workers and the community. For example, livestock and poultry manure treatment and utilization activities may produce wastewater affecting the environment, and odour & flying dust affecting the health of workers and nearby residents; the risk of pathogens caused by sick and dead animals; the quality of organic fertilizer or manure fertilizer disqualifed or excessive application may pollute the soil environment; Laboratories generate general and hazardous chemical, biological (medical) waste, etc. • Risk is substantial. 	<p>scale, and are conducive to reducing pollution and GHG emissions by alleviating the pressure on the ecology brought by overgrazing in the protected areas.</p> <ul style="list-style-type: none"> • The activities will be carried out in a board coverage, including areas inhabited by ethnic minorities. • Risk is substantial. 		<p>activities will be widely supported by the public with no reputational risk.</p> <ul style="list-style-type: none"> • Risk is low. 	
<p>RA3 Improved Governance System for Sustainable and Low Emission Livestock Sector Management</p>					

Typical activities	Likely E&S effects	E&S contextual risks	Institutional capacity and complexity risks	Political and reputational risks	Overall risk ranking
<ul style="list-style-type: none"> Establish incentive system for promoting sustainable grassland management and low emission technologies Strengthen technical capacity & regulatory framework for low emission livestock value chain 	<ul style="list-style-type: none"> Soft activities on policies, mechanism, technical standards will not involve any civil works, and will not have direct negative environmental and social impacts, and pose only minor health and safety risks to the people involved. The implementation of the policies, mechanism, technical standards may induce downstream activities with indirect E&S impacts, e.g., building or upgrading grassland protection facilities, livestock breeding, farming facilities, slaughterhouses, meat processing, agro-food distribution facilities, etc. These facilities will indirectly generate temporary, site-specific, limited environmental impact caused by dust, noise, solid waste, wastewater, topsoil disturbance, soil erosion, land use or occupation, labour employment, construction safety risks, etc. These impacts are predictable and can be mitigated through application of known technologies and measures. The implementation of the policies, mechanism, technical standards will eventually improve grassland ecology with reduced emission and bring about long-term positive E&S effects. Training and study tour activities may pose health and safety risks to the people involved. Risk is moderate. 	<ul style="list-style-type: none"> The activities have provincial-wide implications, involving non- physical construction. But the environmental and social contexts in which downstream activities are triggered can be diversified. The activities will be carried out in a board coverage, including areas inhabited by ethnic minorities. Risk is moderate 	<ul style="list-style-type: none"> The activities will involve ARABs, AHVMBs, MSAs, NRBs, FGBs, EEBs, HCs, DCPCs, etc., requiring cross-sectoral collaboration Risk is moderate 	<ul style="list-style-type: none"> The activities are in line with national and local laws, regulations, policies and procedures with no political risks. The activities are conducive to enhancing grassland productivity, reduce emission, improving eco-environment. The activities will be widely supported by the public with no reputational risk. Risk is low. 	Moderate
	•	•		•	
<ul style="list-style-type: none"> Develop MRV protocols for grassland and livestock sector 	<ul style="list-style-type: none"> Soft activities will not involve any civil works, and will have nearly no direct negative environmental and social impact. These activities will not induce downstream activities with no indirect E&S impacts. Risk is low. 	<ul style="list-style-type: none"> The activities have provincial-wide implications, involving neither physical construction, nor downstream activities with no triggering of E&S sensitive contexts. Risk is low. 	<ul style="list-style-type: none"> The activities will involve ARABs, AHVMBs, MSAs, EEBs, HCs, DCPCs, etc., requiring cross-sectoral collaboration Risk is moderate 	<ul style="list-style-type: none"> The activities are in line with national and local laws, regulations, policies and procedures with no political risks. The activities are conducive to enhancing capacity to response to animal diseases control, ensuring quality and safety of agro-food, and OHS of workers engaged in livestock sector, benefiting to local residents. The activities 	Low

Typical activities	Likely E&S effects	E&S contextual risks	Institutional capacity and complexity risks	Political and reputational risks	Overall risk ranking
				will be widely supported by the public with no reputational risk. • Risk is low	
Overall assessment	Substantial	Substantial	Moderate to Substantial	Low	Substantial

Appendix 3: Comparison with the Bank PforR Policy and Directive

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
<p>Principle #1: Program E&S management systems are designed to promote E&S sustainability in the program design; avoid, minimize, or mitigate adverse impacts; and promote informed decision-making relating to a program's E&S effects.</p>		
<p>Element 1: Operate within an adequate legal and regulatory framework to guide E&S impact assessments, mitigation, management, and monitoring at the PforR level.</p>	<p>Environmental: China has established a complete legal framework on environmental management. (1) governed by the “Environmental Protection Law”, China has developed a variety of environmental management laws, regulations, standards, technical guidelines, such as the “Environmental Impact Assessment Law” (2018), the “Water Pollution Prevention and Control Law” (2017), the “Air Pollution Prevention and Control Law” (2018), the “Solid Waste Pollution Prevention and Control Law” (2020), the “Soil Pollution Prevention and Control Law” (2018), the Regulations on Pollution Prevention and Control of Large-scale Livestock and Poultry Farming” (2013), the “Construction Projects Environmental Protection Management Regulations” (2017), the “Construction Projects EIA Classification Catalogue” (2021), the “EIA Technical Guidelines”, Classified Management Catalogue for Discharge Permits of Fixed Pollution Sources” (2019) etc., which constitutes the legal framework for guiding the assessment of environmental impacts and managing the environmental risks of the PforR activities. (2) Gansu province has established PPMO at provincial level, coordinating various provincial authorities (e.g., EEBs, ARABs, NRBs, WRBs, FGBs, MSAs, etc.) to jointly implement the PforR. These provincial government authorities, together with local counterparts will be responsible for mobilizing their resources, taking necessary actions and designating their statutory regulatory bodies to manage the PforR environmental impacts/risks. Through review of the adequacy of environmental management systems in China and Gansu Province, it’s demonstrated to have a sound legal and regulatory framework to guide E&S impact assessments, mitigation, management, and monitoring at the PforR level. Specifically, the national environmental management systems are also compared with the WBGs EHS guidelines. The system for managing water and wastewater is found to be equivalent to WBGs EHS Guidelines for Water and Sanitation by covering good international industry practices (GIIP), such as improving design, operation and maintenance of manure treatment facilities to be in compliance with national allowable discharging standard, installing rendering equipment in closed spaces and operate under negative pressure compared to ambient air conditions to prevent odor from emission, etc. To ensure quality of crop irrigation, Water Quality Standard for Farming Irrigation of China includes basic control indicators and selected control indicators by referring to the similar standards of international organizations, FAO, USA, Canada and other countries. The standard cleared that the EEBs at all levels shall lead and work together with ARABs at all levels to supervise the implementation of the standard. China’s national “Pollutant Discharge Standards for Livestock and Poultry Farming set the maximum allowable concentration of effluent, which is the same as recommended in the WBG’s EHS Guidelines for Water and Sanitation.</p>	<p>Consistent.</p>
	<p>Social: i) Notice of the National Development and Reform Commission on Issuing the Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects (NDRCI 2012): For any major fixed asset investment project in China, the owner shall conduct an SSRA at the preparatory stage to identify risks and degree of impact, solicit opinions from the affected people, propose measures to prevent and mitigate risks, and determine the recommended social stability risk rating after such measures are taken. ii) Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) (CPCCCO [2012] No.2): An SSRA shall be conducted for any decision-making on major project or matter that concerns the immediate interests of the public, and is likely to cause social stability risks, such as LA and HD, farmers’ burden, state-owned enterprise restructuring, environmental impacts, social security, and public welfare. iii) The Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances promulgated by the General Office of the CPC Central Committee and the General Office of the State Council in February 2020: An SSRA shall be carried out on major decisions including those on major construction projects. It specifies the contents, methods, procedures, and management of SSRA, and application of SSRA results, and underlines that the contents of SSRA are integral to the Program's feasibility study and application reports. The SIA system applicable to the Program is adequate. Specific laws and regulations are sorted out by the following principles and elements.</p>	<p>Consistent.</p>

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
<p>Element 2: Incorporate recognized elements of good practice in E&S assessment and management, including</p>	<p>Environment: China has established a complete EIA system, covering environmental impacts screening, alternatives comparison, site selection, impacts assessment (positive vs. vegetative, direct vs. indirect, cumulative, etc.), mitigation measures, environmental management institutional arrangement, environmental management costs, public consultation, and information disclosure, etc. In the due diligence investigation, the ESSA team collected a variety of primary and secondary data and sample EIA documents approved by EEBs as evidences for similar projects, which demonstrate that the EIA system is well established. Details are given below.</p> <p>Social: The state laws and regulations on project screening include the Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects (2008.11.29), Cultural Relics Protection Law (2017 Amendment), Land Administration Law (2020.1.1), Regulations on the Prevention and Control of Geologic Disasters (2004.3.1), and Notice of the National Development and Reform Commission on Issuing the Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects (NDRCI 2012), and Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances (GOSC, 2020.2.22)</p>	<p>Consistent.</p> <p>Consistent.</p>
<p>(i) early screening of potential impacts;</p>	<p>Environment: The <i>Environmental Impact Assessment Law</i> clearly requires that early screening should be conducted to confirm EIA category for each construction project. The <i>Construction Projects EIA Classification Catalogue (2021)</i> provides a guidance on classifying EIA instruments for 173 types of projects in 55 sectors. Environmental impacts are classified to Class A – high to significant impacts, Class B – small to moderate impacts, and Class C - minor impacts based on project nature, scale, and environmental sensitivity. EIA report, EIA form, and EIA on-line registration for EEBs endorsement will then be development for Class A, Class B, and Class C, respectively. Environmental impact identification and EIA classification are necessary procedures for every construction project. The small-sized facilities related to grassland management and livestock production, including farming zones in Gansu, only EIA registration for EEBs' endorsement is required due to their minor adverse environmental impact. The EIA law also requires Plan-EIA shall be carried out for plans related to land use, integrated development, sectoral development (including agricultural sector and livestock sector) at early planning stage to manage and control cumulative environmental impact.</p> <p>Social: Guidelines on Establishing a Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim): Scope of assessment: The Party and government institutions shall conduct an SSRA before making any decision on any major project or policy or matter that concerns the immediate interests of the public, and is likely to cause social stability risks, such as LA and HD, farmers' burden, state-owned enterprise restructuring, environmental impacts, social security, and public welfare. Decisions subject to SSRA shall be made by relevant local authorities according to the above regulations and in the light of the realities, and the SSRA of any major construction project shall be an integral part of its feasibility study. Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects: The area and type of the land used for the project shall be identified before the feasibility study report or project proposal is reviewed to avoid the expropriation of permanent basic farmland, and nature reserves, etc.</p> <p>It is noted that for some small sized facilities, including livestock farming zones, although the existing management systems and measures are effective, the identification and management of E&S risks and impacts as well as the public consultation and information disclosure were not adequately reflected in the project documents.</p>	<p>Generally consistent.</p> <p>Recommendation: for small sized facilities, including livestock farming zones, clearly document aspects of E&S risks management process and measures in feasibility studies, design documents, etc., including risk identification analysis and mitigation measures, budgets, monitoring arrangements, and meaningful stakeholder consultations</p>
<p>(ii) consideration of strategic, technical,</p>	<p>Environment: EIAs for construction projects are required to include comparison of different natural background conditions especially environmental sensitive areas, site alternatives, pollution control options, pollutants treatment techniques, as well as environmental benefits and costs of different</p>	<p>Consistent.</p>

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
and site alternatives (including the "no action" alternative);	<p>designs. In addition, EIAs will review environmental legacy issues and clarify how the environment will continue deteriorating without the proposed project, which is equivalent to analysis of "with" and "without" project alternatives.</p> <p>For this PforR activities, when selecting sites, following principles will be followed: (1) the sites with activities' nature shall be subject to the constraint of the ERL and the "list for industrial/sectoral access in ecological functional zones; (2) when planning and designing sites for livestock farming, the "Principles of Technical Guidelines for the Demarcation of Prohibited Areas for Livestock and Poultry Farming" will be strictly followed by each Program counties.</p> <p>Social: Cultural Relics Protection Law: Article 20: The site selected for a construction project shall keep away from immovable cultural relics as far as possible. If the impact on a protected culture relic can't be avoided for special circumstances, the original site shall be protected by whatever possible means. Article 29: Before launching a large-scale capital construction project, the construction contractor shall firstly apply to the cultural relic authority of concerned province, autonomous region and municipality for an archaeological investigation at places where cultural relics may be buried underground within the project area. Regulations on the Prevention and Control of Geologic Disasters: Article 13: The development and implementation of overall plan for land utilization and other plans for the construction of a major project shall take full account of the requirements on prevention and control of geologic disasters so as to avoid and mitigate the losses arising from geologic disasters. The plans on prevention and control of geologic disasters shall be an integral part of overall plans developed at municipal, village or township levels.</p>	Consistent.
(iii) explicit assessment of potential induced, cumulative, and trans-boundary impacts;	<p>Environment: According to the "Technical Guidelines on Environmental Impact Assessment", EIA documents will include the assessment of cumulative impacts in temporal and spatial aspects if construction projects are likely to have cumulative impacts on the environment.</p> <p>Social: Outline for the Preparation of the Chapter on the Social Stability Risk Analysis of Major Fixed Asset Investment Projects and Assessment Report (Interim) (NDRCOI [2013] No.428): Analysis of potential induced and cumulative risks shall be conducted, with effective risks management measures being taken.</p>	Consistent.
(iv) identification of measures to mitigate adverse E&S risks and impacts that cannot be otherwise avoided or minimized;	<p>Environment: According to the "Environmental Impact Assessment Law", EIA documents will include proper measures to avoid or mitigate negative environmental impacts. As per the "Technical Guidelines on Environmental Impact Assessment", EIAs will also include specific and operational mitigation measures to manage the identified environmental impacts, and the measures will be incorporated into EMPs. Any EIA documents without appropriate mitigation measures and institutional arrangement will not pass review and approval.</p> <p>It is noted that the environment and sanitary conditions of some small-medium livestock farming zones are poor due to inadequate manure treatment and utilization and animals diseases control facilities. Some of which lack corresponding operational procedures and internal management systems. There is still room for improvement as against the "Gansu Province Livestock and Poultry Farming Zone Construction Standards and Filing Management Measures".</p>	Generally consistent. Recommendations: Document cases of the good practices and experiences of various counties in controlling pollution from livestock production, and in preventing & controlling animal diseases and zoonotic diseases and animal welfare, share with operators of small-medium scale livestock farming zones for them to prepare Environmental & Safety Code of Procedures (ESCOP); Complete or equip necessary animal safety, disease prevention and control facilities, and manure treatment facilities, and include them in the project implementation plan (PIP).

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
	<p>Social: Guidelines on Establishing a Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim): The SSRA report shall specify the scope and procedures of SSRA, opinions of relevant parties and opinions accepted, social stability risks potentially caused by any major decision, conclusions of SSRA, proposals, risks prevention and mitigation measures, and emergency response plans, etc. If the assessment report thinks that a high risk is present, a decision of non-implementation shall be made, or a decision may be made after the plan is adjusted or the risk level is reduced; if an moderate risk is present, a decision of implementation shall be made after effective risk prevention and mitigation measures are taken; and if a low risk is present, a decision of implementation may be made, provided that actions like explanation and persuasion to the people affected are taken and reasonable requests of people affected are handled properly. The SSRA report, signed by person in charge of the assessor, shall be submitted to the decision-making authority for review step by step, with copies being sent to the decision implementation, political and legislative affairs, comprehensive social governance, stability maintenance, legislative affairs, and letters and visits authorities.</p>	Consistent.
(v) clear articulation of institutional responsibilities and resources to support implementation of plans;	<p>Environment: According to the “Technical Guidelines on Environmental Impact Assessment”, EIA documents should clearly define institutional organization and responsibilities, environmental management costs and financial resources, and environmental monitoring and supervision arrangement in terms of parameters, timing, and frequency, etc.</p>	Consistent.
	<p>Social: Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim): Implementation agency of SSRA: SSRA of any major decision shall be conducted by the assessor. For decisions made by the local party committee and government, the assessor shall be designated by such party committee and government; for decisions made by any department of the local party committee and government, the assessor shall be designated by such department or the leading department in consultation with other relevant departments; for decisions made by multiple party and government institutions at different levels, the assessor shall be designated by the initial decision-making authority. During the SSRA, the assessor may organize an assessment group composed of officials from the political and legislative affairs, comprehensive social governance, stability maintenance, legislative affairs, and letters and visits authorities, NGOs, specialized agencies, experts, and representatives of the affected people. Notice of the National Development and Reform Commission on Issuing the Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects: Article 3: At the feasibility study stage of a project, the PIU (or through a specialized agency) shall conduct an SSRA to identify impacts, carry out public consultation, propose mitigation measures, and prepare an SSRA report. Regulations for the Implementation of the Land Administration Law: Article 25: In accordance with approved land acquisition plans, the land administration authority of the municipal/county government shall, in conjunction with other relevant departments, formulate land acquisition compensation and resettlement plans, announce such plans at the townships and villages affected, consider the opinions of rural collective economic organizations and farmers affected. All costs arising from land acquisition shall be fully disbursed within 3 months after the approval of land acquisition compensation and resettlement plans.</p>	Consistent.
(vi) responsiveness and accountability through stakeholder consultation, timely dissemination of the PforR information, and responsive GRMs.	<p>Environment: It is stipulated in “Environmental Impact Assessment Law” that Class A projects subject to full EIA reports should go through public consultation. Though it's not compulsory for Class B projects to carry out public consultation, local EEBs usually suggest the PIUs to seek public opinions if the proposed facilities would have potential impacts on adjacent receptors (e.g., odor emitted from livestock and poultry manure treatment facilities, solid waste or hazardous waste from sick and diseased animals or veterinary service labs), as per the “Mechanism of Information Disclosure for Construction Project EIA”, all PIUs shall disclose the environmental information including the project siting, and the process of construction and operation, etc., and local EEBs shall disclose the management information including the progress of review and approval of EIA documents and the supervision findings, etc. As for the PforR activities related to the small to medium sized livestock farming zones, the EIA-form (similar to Banks Category B) are usually prepared as per EIA Classified Management Catalogue” and public consultation may not be the compulsory procedure, the competent ARABs, representatives of villages and cooperatives will be invited to participate in the selection of construction sites.</p>	Consistent.
	<p>Social: Land Administration Law: Article 47: For expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures. If a government at or above the county</p>	Consistent.

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
	level is to apply for land acquisition, it shall conduct the current status survey and SSRA, and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.	
Principle #2: Program	<i>E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the program</i>	
<p>Element 3: Identify, and screen for adverse effects on potentially important biodiversity and cultural resource areas and provide adequate measures to avoid, minimize, or mitigate adverse effects.</p>	<p>Environment: According to <i>The Technical Guidelines for Environmental Impact Assessment - Ecological Impact</i>, identification and screening of ecological environmental elements (such as wild-fauna and flora, important habitat, biodiversity) is one of the important assignments for EIA to identify environmental protection targets. At the early stage of project proposal and EIA preparation, NRBs and EEBs will strictly implement the ERL mechanism for ecological protection based on <i>Opinions on Delineating and Strictly Observing the EPL</i>, and local <i>Scheme for Delineating ERL</i> when reviewing and approving the selected project site. If any project that encroaches the ERL and may cause adverse impact on natural reserves, the proposed project site will be rejected.</p> <p>For activities related to intensive livestock production, if the selected sites are to be in the experimental zone of a natural reserve, EIA-report or a special report on the impact of the activities to the ecology of the natural reserve will be prepared, that are subject to the strict experts' review before being approved by EEBs. These are the type of activities excluded from the scope of the PforR. Some typical activities under RA 1 sustainable grassland management of the PforR may be sited within the natural reserves which triggers the ERL, but these activities are designed with nature further directing current activities to be more conducive to conserving the eco-environment of natural grasslands, more climate-smart green cycling, improving livestock production efficiency, and reducing pollution and GHG emissions. Therefore, the PforR will not cause significant damage to or degradation of important natural habitats.</p> <p>Social: Cultural Relics Protection Law: Article 20: The site selected for a construction project shall keep away from immovable cultural relics as far as possible. If the impact on a protected culture relic can't be avoided for special circumstances, the original site shall be protected by whatever possible means. Article 29: Before launching a large-scale capital construction project, the construction contractor shall firstly apply to the cultural relic authority of concerned province, autonomous region and municipality for an archaeological investigation at places where cultural relics may be buried underground within the project area.</p>	<p>Consistent.</p> <p>Consistent.</p>
<p>Element 4: Support and promote the protection, conservation, maintenance, and rehabilitation of natural habitats. Avoid significant conversion or degradation of critical natural habitats. If avoiding the significant conversion of natural habitats is not technically feasible, include measures to mitigate or offset the</p>	<p>Environment: The PforR activities will be taken place at grasslands, rural areas and quasi-urban areas, and may involve natural protected areas. (1) China has many laws & regulations on conserving and managing natural ecology, e.g. Law on Wetland Conservation, Law on Wild Animal Conservation, Regulation on Wild Plants Conservation, Regulation on Natural Reserves, Grassland Law, Animal Husbandry Law, Opinion on Delineating and Strictly Observing the Red Line for Ecological Protection, etc. The PforR is designed and will be constructed, operated to strictly comply with the requirements of these laws and regulations. (2) Typical activities under RA 1 sustainable grassland management of the PforR aim to conserve grassland eco-environment, promoting restoration of degraded grassland, and be conducive to conserve, maintain or restore natural habitats. The maintenance and upgrading activities of grassland fire-fighting paths are only allowed to be carried out under the footprint of existing paths. (3) Important plant and animal resources and natural habitats have been included in the scope of ERL management, the site selection of various physical facilities construction activities will be under the supervision of NRBs and EEBs and other departments/bureaus, as per strictly requirement of ERL mechanism, and will not easily trigger the ERL and affect the natural habitat. (4) The PforR exclusion criteria have excluded any activities that may negatively impact natural habitat. (5) The contractors will be required to perform their contractual responsibilities on eco-environment protection to reduce disturbance to artificial and natural ecosystem and restore vegetation in the first time after the completion of construction; water and soil conservation will be taken to reduce soil erosion and improve regional eco-environment. In summary, the PforR activities will not cause significant conversion or degradation of critical natural habitats.</p>	<p>Consistent.</p>

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
adverse impacts of the PforR activities.		
<p>Element 5: Take into account potential adverse effects on physical cultural property and provide adequate measures to avoid, minimize, or mitigate such effects.</p>	<p>Social: Cultural Relics Protection Law: Article 17: No construction works or operations such as blasting, drilling and digging are allowed within the area of a protected cultural relic. If such works or operations are unavoidable, measures must be taken to ensure the safety of the protected cultural relic, and such works or operations shall be subject to the approval by the government approving and announcing its status as a protected cultural relic. Article 20: The site selected for a construction project shall keep away from immovable cultural relics as far as possible. If the impact on a protected culture relic can't be avoided for special circumstances, the original site shall be protected by whatever possible means. Article 29: Before launching a large-scale capital construction project, the construction contractor shall firstly apply to the cultural relic authority of concerned province, autonomous region and municipality for an archaeological investigation at places where cultural relics may be buried underground within the project area. Article 31: The expenses needed for archaeological investigation, prospecting, or excavation, which have to be carried out because of capital construction or construction for productive purposes, shall be included in the budget of the construction contractor for the construction project. Regulations for the Implementation of the Cultural Relics Protection Law: Article 25: The scope and rates of funds for archaeological investigation, exploration and excavation shall be in line with applicable Chinese regulations.</p>	<p>Consistent.</p>
<p>Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
<p>Element 6: Promote adequate community, individual, and worker health, safety, and security through the safe design, construction, operation, and maintenance of program activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial work as appropriate.</p>	<p>Environment: China's management system on animal health disease prevention & control, zoonotic disease prevention & control, and quality and safety of livestock products is in line with the WBG's General EHS Guidelines and for Mammalian Livestock Production, EHS Guidelines for Annual/Perennial Crop Production, for Hazardous Materials Management, and the OIE's Manual of Diagnostic Tests and Vaccines for Terrestrial Animals covering GIIP. Technical Specifications for Sanitary treatment of Sick and Diseased Animals, Technical specifications or Guidelines for the Prevention & Control of Major Animal Diseases, Quality and Technical Requirements for Veterinary Laboratories, Guidelines for the Rational Use of Pesticides (GB/T 8321.10-2018), Code for the Safe Use of Feed Additives, and Guidelines for Farming and Management of Pollution-Free Food Pigs, etc. were developed in accordance with China, the Food and Agriculture Organization of the United Nations (FAO)/World Health Organization (WHO), the World Organization for Animal Health and reference to other countries, which specified the maximum values of residue limits of pesticides in the pork. The management system can guide the scientific, reasonable and safe use of animal feed and feed additives, pesticides and veterinary drugs, effectively prevent and control grassland and artificial forage diseases, insects and rodents, and ensure that pesticide residues in agro-food do not exceed the prescribed limit standards. In order to implement the operational mechanism of the system, Gansu and the Program counties (district) are staffed with appropriate personnel and resources to perform the health and safety management responsibilities and be in line with the Bank's core principles.</p> <p>It is noted that some operators of small-medium livestock farming zones exhibit a lower adoption rate of health and safety management measures, disease prevention and control measures (including zoonotic diseases) and inadequate wear of personal protective equipment. There is a need to upgrade animal diseases & zoonotic diseases control facilities, and further strengthen the health & safety and animal welfare awareness-raising and environmental protection training as well as the daily supervision.</p> <p>Social: China has established a full set of work safety management systems at the design, construction, and operation stages of projects. Safety management is the top priority during project implementation. The implementation of safety management measures is subject to all-round supervision by competent industry supervision and emergency management (work safety) authorities. The owner, construction contractor and operator of a project must establish a well-staffed safety management organization, and competent administrative authorities have developed work safety management mechanisms to supervise the effectiveness and outcomes of work safety in the project. In addition, the emergency management bureau (work safety authority) is responsible for supervising and regulating all industries and key sectors. Thus, China's work safety management</p>	<p>Generally consistent.</p> <p>Recommendation : Strengthen the publicity, education, supervision and management of the prevention and control of animal diseases, zoonotic diseases, health and safety and animal welfare, environmental protection training and management of the operators of small and medium-sized livestock farming zones, as well as communities where the "off-site grazing" are practiced.</p>

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	<p>system is adequate for safety supervision of the PforR Program activities.</p> <p>i) Labor Law: Article 15: the employer shall be banned from recruiting juveniles under the age of 16s shall not recruit minors (under 16 years) ; special protection shall be given to female and underage (above 16 years old and below 18 years old) workers. Article 53: Labor health and safety facilities shall comply with the national standards. Newly constructed, reconstructed or expanded labor health and safety facilities must be designed, constructed, and put into operation together with main parts of the project. Article 54: The employer must provide labor health and safety conditions, and necessary labor protection articles complying with the state provisions to workers, and workers dealing with operations with occupational hazards shall receive health checkup regularly. Article 57: The state shall establish a statistical reporting and handling system of accidents and occupational diseases. Article 61: Pregnant female workers shall not be arranged to deal with physical labor of intensity level III stipulated by the state and prohibited labor, and female workers pregnant for seven months or more shall not work overtime or at night; Article 94: if an employer illegally recruits persons under the age of 16, the labor administrative department in charge shall command a correction and a fine. If the case is very serious, the license of the employer shall be revoked.</p> <p>ii) Regulations on Prohibition of the Use of Child Labor (2002): Article 2: no employer, including state organs, social organizations, enterprises, institutions, private non-enterprise units, or individual industrial and commercial households shall hire individuals under the age of 16. It is forbidden for any entity or individual to introduce employment opportunities to individuals under the age of 16. Individuals under the age of 16 are prohibited from starting individual business operations; Article 6: if an employer uses child labor, the labor administrative authorities shall impose a penalty according to a standard of 5,000 yuan per month for each employed child laborer.</p> <p>iii) Work Safety Law: Article 21: The primary person in charge of a production and operation entity shall be responsible for establishing and improving its work safety responsibility system, developing policies, rules, and operating procedures for work safety, developing and implementing work safety education and training plans, supervising and inspecting work safety to eliminate hidden risks of work safety accidents in a timely manner, preparing and implementing emergency rescue plans for work safety accidents, and reporting work safety accidents in a timely and honest manner. Article 73: Departments in charge of supervision and control over work safety shall set up a complaint system, such internet reporting platforms as the complaint telephone numbers, mailbox numbers or e-mail addresses known to the public, to facilitate receipt of complaints related to work safety. Article 74: All units and individuals shall have the right to report or complain about hidden dangers that may lead to accidents and practices violating work safety laws to the departments in charge of supervision and control over work safety. Article 75: When community committees or villager committees discover hidden dangers that may lead to accidents or practices violating work safety laws in production and business units located in their areas, they shall report the matter to the local people's governments or the departments concerned.</p> <p>iv) The Civil Code requires that labor safety and hygiene facilities for new construction, reconstruction and expansion projects must be designed, constructed, put into production and used at the same time as the main project; a person who has been sexually harassed again will by another person through oral words, written language, images, physical acts, or the like, has the right request the actor to bear civil liability in accordance with law</p> <p>v) The Regulations on Work-Related Injury Insurance (Amended in 2010) stipulate that enterprises, institutions, social organizations, private non-enterprise units, foundations, law firms, accounting firms and other organizations within the territory of the People's Republic of China, as well as individual industrial and commercial enterprises with employees (hereinafter referred to as "employers"), shall participate in work-injury insurance in accordance with the provisions of the Regulations, and pay work-related injury insurance premiums for all of the workers or employees of the organization (hereinafter referred to as "employees"). (Hereinafter referred to as employees) for all employees or hired workers (hereinafter referred to as employees) of the organization.</p> <p>vi) Law on the Prevention and Control of Occupational Diseases (2018 Amendment): Article 4: Employees shall be entitled to occupational health protection according to law. Employers shall create work environment and conditions meeting the national occupational health standards and health requirements and take measures to ensure that employees receive occupational health protection. Trade unions shall oversee the</p>	

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	<p>prevention and control of occupational diseases and protect the lawful rights and interests of employees according to law. When formulating or amending rules and regulations on the prevention and control of occupational diseases, employers shall solicit the opinions of trade unions. Article 5: Employers shall establish and improve a responsibility system for the prevention and control of occupational diseases, strengthen the management of prevention and control of occupational diseases, improve their capabilities of prevention and control of occupational diseases, and assume responsibilities for their own occupational hazards. Article 6: The primary person in charge of an employer shall assume the overall responsibility for the employer's prevention and control of occupational diseases. Article 7: Employers must make work-related injury insurance available for its employees according to law. Article 9: An occupational health supervision system shall be implemented in China. Article 10: The State Council and the local governments at and above the county level shall prepare plans on the prevention and control of occupational diseases, which shall be included in the national economic and social development plan and organize the implementation of such plans.</p> <p>vii) Provisions on the Management of Occupational Hygiene in Workplaces (2020), article 8, employers with serious hazards of occupational diseases shall set up or designate occupational hygiene management institutions or organizations with full-time occupational hygiene management personnel. Article 9, the main person in charge of the employing unit and the occupational hygiene management personnel shall have occupational hygiene knowledge and management ability appropriate to the production and business activities engaged in by the unit, and shall receive occupational hygiene training. Article 10: Employers shall provide occupational hygiene training to workers before they start work and regular occupational hygiene training during their employment, popularize occupational hygiene knowledge, and urge workers to comply with laws, regulations, rules, national occupational hygiene standards and operating procedures for the prevention and treatment of occupational diseases. Article 11: Employers with occupational disease hazards shall formulate plans for the prevention and control of occupational disease hazards and implementation programs, and establish and improve occupational health management systems and operating procedures. Article 13, where hazardous factors for occupational diseases listed in the Occupational Disease Catalog exist in the workplace of an employer, the employer shall, in accordance with the Measures for Declaration of Occupational Disease Hazardous Items, promptly and truthfully declare the occupational disease hazardous items to the competent department of health at the location and accept the supervision and inspection of the competent department of health.</p> <p>viii) The "Requirements and Guidelines for the Use of Occupational Health and Safety Management System" (2020) requires enterprises to commit themselves to comprehensively and systematically identifying and controlling potential sources of occupational health and safety hazards of the organization, and to try their best to nip safety accidents that may arise in the course of the organization's activities in the bud, so as to achieve the purpose of protecting the health and safety of employees. Enterprises can apply for the certification of "Occupational Health and Safety Management System", and through the establishment of a systematic and standardized management system, identify the source of hazards and control the whole process, so as to achieve continuous improvement and compliance with the law. However, an occupational health and safety management system is not a mandatory requirement.</p> <p>ix) The Stock-breeding Law of the People's Republic of China (2022) stipulates that the site selection of stock-breeding farms should comply with national regulations, keeping a considerable distance from drinking water sources, animal slaughter and processing facilities, and animal and animal product markets, with a minimum distance of at least 500 meters from other livestock farms or villages.</p> <p>x) The Law of the People's Republic of China on Animal Epidemic Prevention (2021) mandates that livestock farms, quarantine facilities, slaughter and processing plants (yards), harmless treatment plants, and places for isolating infected animals must meet the animal epidemic prevention conditions specified by the administrative authorities of agricultural and rural affairs under the State Council.</p> <p>xi) The Food Safety Law of the People's Republic of China (2021) requires that, in the slaughter and animal products processing phases, (i) food producers and operators must establish and implement a health management system for employees. Individuals suffering from diseases that jeopardize food safety, as specified by the health administrative department of the State Council, are prohibited from engaging in work involving direct contact with food intended for human consumption. (ii) personnel involved in work directly related to food for human consumption must</p>	

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	<p>undergo an annual health check. They are allowed to work only after obtaining a health certificate. Additionally, the law also establishes fundamental principles and systems for the quality and safety of agricultural products, including standards, monitoring, and traceability. Among which, specific requirements and management measures for the use of feed and veterinary drugs and agricultural product quality and safety in the livestock farming industry chain are outlined.</p> <p>xii) The Law of the People's Republic of China on Quality and Safety of Agricultural Products (2022), regulates that agricultural product production enterprises and cooperatives should issue a commitment certificate for the quality of its agricultural products and those entities or individual who sell these edible agricultural products must be responsible for the content of the commitment certificate. Entities engaged in the testing of agricultural product quality and safety must obtain a qualification certificate issued through assessment before conducting such testing activities.</p> <p>xiii) Others: the Law of the People's Republic of China on the Prevention and Control of Infectious Diseases, requiring that for external migrant workers who may pose a risk of infectious disease transmission, health checks and registration are required. Necessary preventive measures, such as vaccination and isolation treatment, should be implemented to prevent the spread of infectious diseases. The Notice on Strengthening AIDS Prevention and Control Work in the Construction Industry (2005) requires construction administrative authorities across regions to widely conduct AIDS prevention and control knowledge training for migrant workers. It emphasizes the improvement of the working environment and living conditions of on-site construction workers and the implementation of preventive immunization measures for AIDS and other statutory infectious diseases. The notice further calls for organizing pre-employment and routine health examinations for migrant workers. The Public Security Administration Punishment Law of the People's Republic of China requires that the construction unit shall proceed identity registration of migrant workers at local government and implement stringent measures against illegal activities and crimes to ensure social stability.</p>	
<p>Element 7: (i) Promote the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated under the PforR.</p>	<p>Environment: Regarding the possible physical, biological, and chemical injuries during livestock production and risks of animal health, Diseases control, agro-food quality and safety, public health and OHS, China has established a comprehensive health and safety management system under a series set of laws, regulation, standards and guidelines, such as the “Law on the Prevention and Control of Occupational Diseases”, the “Provisions on the Prevention and Control of Occupational Diseases”, the “Law on Animal Epidemic Prevention”, the “Regulations on the Management of Veterinary Drugs”, the “Regulations on the Management of Pesticides”, the “Regulations on the Management of Medical Waste”, the “Regulations on the Implementation of Pest Control and Rodent Control in Grasslands” and relevant guidelines for safe use them, the “Safety Instruction Manual for Confined Space Operations”, etc. According to the “Classification of Occupational Hazards in Construction Projects”, risk of crop cultivation under agricultural sector is classified as “general”, risk of cattle and sheep farming are classified “severe”, risks of other operations related to livestock and poultry production, slaughtering, meat processing are classified “general”. With regard to livestock facilities, there are safety management procedures during design and construction; During the operation, to manage the safety of the use of veterinary drugs and pesticides, the competent government authorities (mainly the AHVMBs), provide official veterinarian service or unified service through procurement of specialized agencies for crop pest prevention & control who have more stringent safety rules and regulations and preventive equipment to minimize the safety risks of small farmers and herdsman's exposure to pesticides. With regard to the management of risks of health and safety potentially brought by hazardous wastes from veterinary service labs and agro-food quality testing labs, collection, transferring and disposal of sick and dead animals and diseased animal products, mechanisms of “official veterinarian appointment”, “site certificated and institutions licensing”, “designated sites for slaughtering”, “link insurance with sanitary treatment of sick & dead animals”, “unified bills for collection, transferring and centralized sanitary treatment of medical wastes” etc., are implemented to minimize risks of operators, communities, public from exposure to hazardous wastes in the PforR activities.</p>	Consistent.
	<p>Social: i) Work Safety Law: Article 24: An entity engaged in mining, metal smelting, building construction or road transportation, or an entity manufacturing, marketing, or storing hazardous substances shall establish a work safety management body or have full-time work safety management personnel. Article 25: The work safety management body and work safety management personnel of a production and operation</p>	Consistent.

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	<p>entity shall be responsible for: (1) organizing or participating in the development of the work safety policies, rules and operating procedures and the emergency rescue plans for work safety accidents; (2) organizing or participating in and honestly recording its work safety education and training; (3) supervising the implementation of safety control measures for the major hazard installations of the production and operation entity; (4) organizing or participating in the emergency rescue rehearsals of the production and operation entity; (5) inspecting its work safety condition, conducting screening for any work safety risks in a timely manner, and offering recommendations for improving work safety management; (6) prohibiting and redressing any command against rules, forced operation at risk, or violation of the operating procedures; and, (7) supervising the work safety related corrective actions taken by the production and operation entity.</p> <p>ii) Regulations on the Safety Management of Hazardous Chemicals: Article 4: A hazardous chemical entity shall provide safety education, legal education and on-the-job technical training to its employees. Employees shall accept education and training and may not hold office until they have passed the relevant examinations.</p> <p>iii) Occupational Health and Safety Management Systems—Requirements with Guidance for Use: This is a regional standard on OHS management systems, designed to systematically identify and control occupational health and safety risks that may arise in organizational activities, products and services, prevent safety accidents, and protect workers' health and safety. Enterprises may apply for OHS management system certification, establish a normative management system for the source identification and whole-process control of hazards, and realize continual improvement and compliance. An assessment includes: 1) OHS pre-assessment; 2) inspection reports on OHS and fire protection; 3) test reports on OHS and fire protection; 4) chemical safety reports for hazardous chemicals; 5) copy of manufacturing license (when required); and 6) copy of business license. The following shall be reviewed comprehensively: 1) the organization's work safety permit; 2) production or service flowchart; 3) organizational chart; 4) list of applicable laws and regulations; 5) location map; 6) factory layout; 7) workshop layout; 8) list of major hazards; 9) OHS targets, indicators and management plan; and 10) certificate of compliance, etc.</p> <p>iv) Guidelines for Occupational Disease Prevention and Control for Employers: The general requirements for occupational disease prevention and control, classified and tiered management, occupational health file management, and OHS assessment, etc. are stipulated, including: a corporate occupational health policy shall be developed, and an occupational disease prevention and treatment agency and an occupational health management agency shall be established, with relevant functions being clearly defined and full/part-time occupational health officers being appointed; occupational disease prevention and control shall be included in the management-by-objective responsibility system; an occupational disease prevention and control plan, and an implementation plan shall be developed; a sound occupational health management system and job SOPs shall be established; sound occupational health files shall be established; efforts shall be made to establish a sound workplace occupational hazard monitoring and evaluation system, provide necessary financial support for occupational disease prevention and control, develop a sound emergency rescue plan for occupational diseases, and make work-related injury insurance available.</p> <p>v) Gansu Province "14th Five-Year Plan for Occupational Diseases Prevention and Control" (GWF [2022] No.36): By 2025, a sounder occupational health management system shall be established, the occurrence of occupational diseases will be significantly reduced, the labor management and working time management will be further improved, key occupational diseases like pneumoconiosis will be effectively controlled and the service for occupational health will be significantly improved, the awareness of the public on occupational health will be improved and workers health condition will be further improved. Below are the main objectives: the number of contributors of work-related injury insurance is increased steadily; over 90% of industrial enterprises and projects exposed to occupational hazards are declared; over 85% of workplaces pass the occupational hazard monitoring; over 90% of non-medical radiation workers receive the radiation dose monitoring; over 85% of key groups exposed to occupational hazards have a good knowledge of occupational health protection; the rate of accessibility of centralized pneumoconiosis rehabilitation service in townships (communities) is over 90%; occupational health violations are fully investigated and handled; existing medical resources are made use of to establish provincial medical institutions providing occupational diseases treatment; at least one provincial agency is designated to provide technical guidance on the protection against occupational hazards such as dust, poisonous chemicals, noise and radiation;</p>	

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	at least one public medical and health institution in every city (prefecture) is designated to provide diagnosis of occupational diseases; at least one public medical and health institution in every city, county and district to provide occupational health examination with a service coverage of 95%.	
(ii) Promote the use of integrated pest management practices to manage or reduce the adverse impacts of pests or disease vectors	<p>Environment: China has a mature pesticide management system, and has formulated regulations and systems such as the “Regulations on Pesticide Management”, the “Regulations on the Implementation of Pest Control and Rodent Control in Grasslands” and the “Regulations on the Prevention and Control of Crop Diseases and Pests”. The production and marketing of pesticides shall be subject to a licensing system, and pesticide users shall use pesticides according to requirements. In grassland management practice, following principles of prevention first, comprehensive treatment and ecological priority, those insecticides and rodenticides with high efficiency, low-toxicity, economic and safe natures are used with the help of helicopters and drones flight prevention and artificial + large, small and medium-sized equipment and other equipment for spraying, while chemicals with secondary poisoning and serious environmental pollution effects will be strictly prohibited. Such activities are subject to supervision of FGBs’ law enforcement teams.</p> <p>In the forage cultivation practice, the IPM is encouraged. Reduced use of pesticide actions is being taken through the use of ecological management, healthy cultivation, biological control, physical control and other green prevention and control technologies. ARABs at all levels have full-time institutions responsible for the comprehensive supervision of pest control and pesticide reduction. .</p>	Consistent.
(iii) Provide training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with the relevant international guidelines and conventions.	<p>Environment: The use of chemical pesticides in the prevention and control of pests and diseases in artificial forage cultivation may involves the use of organophosphorus pesticides, chloramine and other hazardous chemicals that are harmful to operators’ health. In accordance with the Regulations on the Safety Management of Hazardous Chemicals, the Catalogue of Hazardous Chemicals, the Law on Safety in Production, and the Law on the Prevention and Control of Occupational Diseases, the IPM measures are promoted the reduction of toxic chemical pesticides. Specialized organizations are purchased by county ARABs for providing unified service for prevention and control of crop pests. These specialized organizations have formulated sound safety management systems and better measures and equipment for pesticides application, operators are equipped with standard labor protective equipment under the guidance and supervision of ARABs or AHVMBs.</p> <p>Social:</p>	Consistent.
	<p>i) Regulations on the Safety Management of Hazardous Chemicals: Article 4: A hazardous chemical entity shall provide safety education, legal education and on-the-job technical training to its employees. Employees shall accept education and training and may not hold office until they have passed the relevant examinations.</p> <p>ii) Occupational Health and Safety Management Systems—Requirements with Guidance for Use: This is a regional standard on OHS management systems, designed to systematically identify and control occupational health and safety risks that may arise in organizational activities, products, and services, prevent safety accidents, and protect workers’ health and safety. Enterprises may apply for OHS management system certification, establish a normative management system for the source identification and whole-process control of hazards, and realize continual improvement and compliance. An assessment includes: 1) OHS pre-assessment; 2) inspection reports on OHS and fire protection; 3) test reports on OHS and fire protection; 4) chemical safety reports for hazardous chemicals; 5) copy of manufacturing license (when required); and 6) copy of business license. The following shall be reviewed comprehensively: 1) the organization’s work safety permit; 2) production or service flowchart; 3) organizational chart; 4) list of applicable laws and regulations; 5) location map; 6) factory layout; 7) workshop layout; 8) list of major hazards; 9) OHS targets, indicators and management plan; and 10) certificate of compliance, etc.</p> <p>iii) Guidelines for Occupational Disease Prevention and Control for Employers: The general requirements for occupational disease prevention and treatment, tiered and classified management, occupational health file management, and OHS assessment, etc. are stipulated, including: a corporate occupational health policy shall be developed, and an occupational disease prevention and treatment agency and an occupational health management agency shall be established, with relevant functions being clearly defined and full/part-time occupational health officers being appointed; occupational disease prevention and control shall be included in the management-by-objective responsibility system; an occupational disease prevention and control plan, and an implementation plan shall be developed; a sound occupational health management</p>	Consistent.

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	system and job SOPs shall be established; sound occupational health files shall be established; efforts shall be made to establish a sound workplace occupational hazard monitoring and evaluation system, provide necessary financial support for occupational disease prevention and control, develop a sound emergency rescue plan for occupational diseases, and make work-related injury insurance available.	
<p>Element 8: Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or affected by climate events.</p>	<p>Social:</p> <p>i) Regulations on the Defense against Meteorological Disasters: Article 27: When implementing major national construction projects and major regional economic development projects, and preparing urban and rural development plans, governments at or above the county level shall consider climatic feasibility and risks of meteorological disasters and take actions to avoid or mitigate such impacts. Article 23: Lightning protection devices of buildings, places and facilities shall comply with the national lightning protection standards. Lightning protection devices of newly constructed, reconstructed or expanded buildings, places and facilities must be designed, constructed, and put into operation together with main parts of the project.</p> <p>ii) Regulations of the People's Republic of China on Flood Control: Systematic arrangements for flood control in terms of organization, preparation, implementation, emergency rescue, recovery, and funding, etc. are made.</p> <p>iii) Regulations on the Prevention and Control of Geologic Disasters: Article 10: A geologic disaster investigation system shall be practiced at the state, provincial and county levels. The land and resources authority shall work out the planning on prevention and control of geologic disasters within its own jurisdiction according to the result from investigation of geologic disasters within such jurisdiction as well as the planning of the next higher level on prevention and control of geologic disasters and submit it to the government at the same level for approval and promulgation after expert evaluation. Systematic arrangements for the investigation, prevention and control of geological disasters are made in terms of the prevention, emergency response and control of geological disasters, and legal responsibilities, etc.</p> <p>iv) Law on Protecting Against and Mitigating Earthquake Disasters: Article 35: The construction projects newly built, expanded or rebuilt shall meet the seismic fortification requirements. The major construction projects and the construction projects which may induce serious secondary disasters shall be subject to the seismic safety evaluation as required, and the seismic fortification shall be conducted in accordance with the seismic fortification requirements determined by the approved seismic safety evaluation reports. The seismic safety evaluation entities of construction projects shall, in accordance with the relevant standards of the state, carry out seismic safety evaluation, and be responsible for the quality of the seismic safety evaluation reports. The construction projects other than those prescribed in the preceding paragraph shall be fortified against earthquakes according to the seismic fortification requirements determined by the seismic intensity zoning map or the ground motion parameter zoning map. The construction projects in densely populated places such as schools and hospitals shall be designed and constructed in compliance with the seismic fortification requirements higher than those for other buildings in the locality, and effective measures shall be taken to increase the capability of seismic fortification.</p>	Consistent.
<p>Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.</p>		
<p>Element 9:</p> <p>i) Avoid or minimize land acquisition and related adverse impacts.</p>	<p>i) Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects: The area and type of the land used for the project shall be identified before the feasibility study report or project proposal is reviewed to avoid the acquisition of permanent basic farmland, and nature reserves, etc.</p> <p>ii) Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) (COPCCO [2012] No.2): An SSRA shall be conducted for any project involving LA and HD, farmers' burden or social security.</p> <p>iii) Guidelines on Establishing a Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim): If the assessment report thinks that a high risk is present, a decision of non-implementation shall be made, or a decision may be made after the plan is adjusted or the risk level is reduced; if an moderate risk is present, a decision of implementation shall be made after effective risk prevention and mitigation measures are taken; and if a low risk is present, a decision of implementation may be made, provided that actions like explanation and persuasion</p>	Consistent

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	<p>to the people affected are taken and reasonable requests of people affected are handled properly. For impact and risk management, the legitimacy, rationality, feasibility and controllability of measures shall be assessed.</p> <p>iv) Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances: SSRA, if required, shall be an important part of the feasibility study of any major construction project. Major decisions, items and matters with low social stability risks decided to be put in place when conditions are ripe shall be advanced in a well-planned way in accordance with the risk control plan. If social stability risks are identified and the conditions are not ripe, the decision making shall be subject to approval or be postponed until the original plan is improved, the conditions are ripe and risks are eliminated. Decisions, items and matters urgently needed to be put in place despite high risks shall be advanced prudently and carefully after precautionary and mitigation measures are taken. Those with major social stability risks and fall short of relevant requirements shall in no case be put in place.</p> <p>v) The Circular of the MNR on Regulating the Management of Temporary Land Use (Natural Resources Regulation [2021] No. 2) requires that cultivated land should be occupied as little or as little as possible. Temporary land that is difficult to reclaim land after use should strictly control the occupation of cultivated land and is required to restore the original planting conditions after the construction is completed.</p> <p>vi) Notice of MNR, MARA and NFGA on Issues concerning Strict Control of Cultivated Land Usage (MNRP [2021] No.166), requiring that permanent basic farmland shall not be converted into forest land, grassland, garden land and other agricultural land or agricultural facilities construction land. The annual "balance in and out" shall be carried out for any conversion of cultivated land to other agricultural land and agricultural facilities construction land, and the same amount and quality of cultivated land shall be made up by means of the consolidation of forest land, grassland, garden land, other agricultural land and agricultural facilities construction land into cultivated land.</p> <p>vii) Measures for the Administration of the Transfer of Rural Land Management Rights (MARA, Decree No. 1, 2021), which requires that when the transferee subject submits an application, the local people's government at or above the county level or the people's government of the township or township shall, in accordance with the law, organize an examination and review by the relevant departments, representatives of the collective economic organization of the rural area, representatives of the farmers, and experts on the use of the land, the ability of the transferee subject to engage in agricultural business, and whether the business project is in line with the planning of the food production industry and other industrial planning, etc., and that where an application for the examination and review is not submitted in accordance with the regulations or where the examination and review fails to be carried out, the transfer of the right to operate the land may not proceed.</p> <p>viii) Implementing Opinions of the CPC Gansu Provincial Committee and the People's Government of Gansu Province on Strengthening the Protection of Cultivated Land and Improving the Balance of Occupancy and Compensation (GZBF [2019]): 1) Strengthening the control of land planning and the control of use, giving full play to the overall control role of the overall plan for land use, approving the scale of new construction land in a stringent manner, optimizing the layout of construction land, and controlling the occupancy of cultivated land for construction in a stringent manner, especially high-quality cultivated land. 2) Strictly delineating and protecting permanent basic farmland. Basic farmland delimitation and protection, all relevant departments in the preparation of urban and rural construction, infrastructure, ecological construction and other related planning, to promote the process of multi-planning, should be fully integrated with the layout of permanent basic farmland, in principle, shall not break through the boundaries of the permanent basic farmland. 3) Strictly control the occupation of non-agricultural construction of permanent basic farmland. Once the permanent basic farmland is delineated, no unit or individual shall occupy or change the use without authorization. In addition to the legal provisions of the energy, transportation, water conservancy, mining, military facilities and other national and provincial key construction projects site can not be avoided, any other construction projects are not allowed to occupy permanent basic farmland, and resolutely prevent the permanent basic farmland "non-farming". If it is really difficult to avoid the permanent basic farmland for major construction projects, the necessity, reasonableness and feasibility of the replenishment program must be rigorously demonstrated during the feasibility study stage, and the land use pre-approval of the Ministry of Land and Resources must be passed; and the conversion of agricultural land and land acquisition shall be reported to the State Council for approval in accordance with laws and regulations.4) Ease the pressure on the occupation of</p>	

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	<p>cultivated land for construction with land-saving and land-intensive use. Strictly control the total amount and intensity of construction land. 5) Do a good job of demonstrating the occupation of cultivated land for construction, strictly implement the rules of determining the occupation by replenishment, replenishment before occupation, and guide the construction projects not to occupy or occupy less cultivated land, and avoid the cultivated land of higher quality grade if it is necessary to occupy cultivated land. Strengthening the pre-examination of construction land, strict project control, land use pre-examination stage, prohibit the approval of construction projects unrelated to environmental protection at all levels and in all types of protected areas. 6) Reasonably adjust the proportion of construction land structure. Activate the stock of construction land, guide the structural adjustment of urban construction land, optimize the structure of rural construction land, promote the structural adjustment of urban and rural land use, reasonably increase urban land use, and increase the remediation of idle, unused and inefficient land in rural areas.7) Strictly prevent the "non-agriculturalization" of collective land transfer. Strictly adhere to the agricultural use of agricultural land, strictly prohibit non-agricultural construction in the name of agricultural land transfer, prevent the "non-food" and "non-farming" of cultivated land, and strictly prohibit the "non-farming" of cultivated land. 8) Strictly implement the responsibility of cultivated land occupation and replenishment balance, and complete the task of replenishing cultivated land.</p> <p>ix) The Notice of Gansu DNR on Implementing the Requirements of MNR Circular to Further Strengthen the Management of Temporary Land Use (GZZ [2021] No. 81) stipulates that TLU shall try not to take up or take up as little as possible of cultivated land. If it is difficult to restore the original planting conditions, such as girder making yard and mixing station, the TLU shall not occupy cultivated land and permanent basic farmland, and the land can be used in the way of construction land use or temporary occupation of unutilized land. If the TLU does need to occupy permanent basic farmland, it must be able to restore the original planting conditions.</p> <p>x) Notice on Issues Related to the Management of Facility Agricultural Land (ZRZG [2019] No. 4), strictly defines the scope of facility agricultural land, clarifies the support policies and regulatory opinions for facility land directly used for crop cultivation and livestock, poultry and aquaculture in agricultural production, and at the same time, requires the relevant departments at the provincial level to highlight the characteristics of the local conditions, and to further refine the scale of production and construction standards.</p> <p>xi) The Measures for Implementation of the Land Management Law of the People's Republic of China in Gansu Province (effective January 1, 2022) clearly states that "any unit or individual is prohibited from engaging in land development activities within the scope of prohibited reclamation as determined by the spatial planning of the land. It is prohibited to destroy forests and grasslands to reclaim cultivated land, and it is prohibited to encircle lakes to create fields and encroach on river banklands"; at the same time, the Measures also propose that "county (city and district) people's governments shall implement the national rural revitalization strategy, and safeguard the demand for land for the development of rural industries, rural public facilities, and construction of public welfare undertakings in accordance with law, as well as reserving relevant construction land indexes in accordance with state regulations. Land use indicators. On the premise of conforming to the land use scope and scale standards stipulated by the State and the province, priority may be given to arranging land for facility agriculture that is directly used for crop cultivation and livestock, poultry and aquaculture".</p> <p>xii) "Notice on Strengthening the Management of Facility Agriculture Land Use (2020, Gansu DNR and DARA)" clearly puts forward that "the land use agreement for facility agricultural land shall be implemented under the land use agreement filing system, which shall be filed by the township under the jurisdiction of the township, and the township government and the collective economic organization of the village shall be the main body of the management of the land used for facility agricultural land, and the county-level department of natural resources and the department of agriculture and rural areas shall be responsible for the supervision of facility agricultural land". The county-level natural resources departments and agricultural and rural departments are responsible for the supervision of agricultural land for facilities", and accordingly formulated strict procedures and work requirements.</p>	
(ii) Identifying and addressing economic	i) Land Administration Law: Article 26: Owners or users of the land to be acquired shall, within the time limit specified in the announcement, go through compensation registration on the strength of the real estate ownership certificate as required by the local land and resources authority. For	Consistent.

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and social impacts arising from land acquisition or loss of access to natural resources:	<p>expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures.</p> <p>ii) Regulations for the Implementation of the Land Administration Law: Article 25: Municipal/county government of the locality whose land has been expropriated shall, upon approval of the LA plan according to law, organize its implementation, and make an announcement in the township and village where land acquisition occurs on the approval organ of the LA, number of the approval document, use, scope and area of the acquired land as well as the rates for compensation of LA, measures for the resettlement of agricultural workers and duration for processing LA compensation.</p> <p>Article 26: Land compensation fee shall go to the rural collective economic organization, and compensation for ground attachments and standing crops shall be disbursed to their owners.</p> <p>iii) The Measures for the Administration of the Transfer of Rural Land Management Rights (Order No. 1 of MARA, 2021) requires that the transfer of land management rights should follow the principles of lawfulness, voluntariness, and compensation, and that a contract for the transfer of land management rights should be signed; and that the proceeds from the transfer of land management rights should be attributed to the contracting party. In addition, a full set of mechanisms for handling complaints regarding compensation for land expropriation has been established from the grassroots level in rural areas or communities, to townships, and to governments at the county level and above. If affected persons are dissatisfied with the handling of identification, compensation and resettlement affecting their rights and interests, villagers may appeal to the president or village committee and request that the matter be handled, or they may apply to the township government and the county and municipal governments for handling of the matter.</p> <p>iv) The Regulations on Letters and Visits (2022), the letters and calls departments of the Party committees and governments at all levels shall fulfill their duties of accepting, transferring, handing over and coordinating the resolution of complaints, and supervising and checking. If the complainant is not satisfied with the outcome of the complaint, he or she may also resolve the dispute through legal proceedings to safeguard his or her legitimate rights and interests.</p>	
iii) Provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access.	<p>i) Real Right Law: Article 42: For collective land acquired, land compensation, resettlement subsidy, compensation for ground attachments and standing crops, etc. shall be fully paid according to law, and social security funds for land-expropriated farmers shall be appropriated to secure their livelihoods and protect their lawful rights and interests. Where any house or other immovable property of any entity or individual is expropriated, compensation shall be granted according to law to protect the lawful rights and interests of the affected entity or individual. Where any personal residence is expropriated, the affected person's housing conditions shall be secured.</p> <p>ii) Land Administration Law: Article 48: Fair and reasonable compensation shall be granted for land acquisition. In case of land acquisition, the land compensation, resettlement subsidy, and compensation for rural residential houses, other ground attachments and standing crops, etc. shall be paid timely and fully according to law, and social security costs for the affected farmers shall be disbursed.</p> <p>iii) Notice of the People's Government of Gansu Province on Issuing the Standard of Block Compensation Land Price on Farmland Acquisition (GZF [2023] No.55), clarified that 60% of the block comprehensive land price is the resettlement subsidy and 40% is the land compensation fee, excluding the social security insurance subsidies for land-lost farmers as stipulated by law; for other farm land and construction land, one time of the standard shall be applied; for unused land acquired, .0.1 times of the standard shall be applied, In addition to the explicit price of grassland in pastoral areas, 0.4 times of the standard shall be applied for grassland in other non-pastoral agricultural land acquired; for state-owned farmland and construction land (got the land through allocation), refer to the compensation standard of collective land within the region; for state-owned unused land, no compensation is required.</p>	Consistent.
iv) Provide supplemental livelihood or improvement	<p>i) Land Administration Law: Article 48: Efforts shall be made to ensure that living standard of farmers affected by land expropriation are not reduced, and that their long-term livelihoods are secured.</p> <p>ii) Guidelines on Improving the Compensation and Resettlement System for Land Acquisition (MLR [2004] No.238): 1) Agricultural resettlement: When rural collective land out of urban planning areas is acquired, land-expropriated farmers shall be first provided with necessary</p>	Consistent.

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restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment).	<p>cultivated land in forms of mobile collective land, contracted land turned over by contractors and cultivated land arising from land development so that they continue to pursue agricultural production. 2) Reemployment resettlement: conditions shall be created actively to provide free labor skills training to land-expropriated farmers and place them to corresponding jobs. Under equal conditions, land users shall first employ land-expropriated farmers. When rural collective land within urban planning areas is acquired, land-expropriated farmers shall be included in the urban employment system and the social security system. 3) Dividend distribution resettlement: when any land with long-term stable yields is to be used for a project, the affected rural collective economic organization may become a project shareholder with compensation fees for LA or rights to use construction land in consultation with the land user. The rural collective economic organization and rural households will receive dividends as agreed. 4) Non-local resettlement: if basic production and living conditions are not available locally to land-expropriated farmers, non-local resettlement may be practiced under the leadership of the government in consultation with the rural collective economic organization and rural households.</p> <p>iii) Notice on Doing a Good Job in Employment Training and Social Security for Land-expropriated Farmers (SC [2006] No.29): Employment training and social security for land-expropriated farmers shall be an important part of land acquisition system reform. Local governments shall, against the backdrop of coordinating economic and social development in urban and rural areas, enhance employment training and social security, include employment of land-expropriated farmers in the economic and social development plans and annual plans of local governments, establish a social security system suited to the characteristics and needs of land-expropriated farmers, take effective measures to secure employment training and social security funds, help land-expropriated farmers get employed and assimilate into the urban community, and ensure that the living standard of land-expropriated farmers is not reduced due to land expropriation and that their long-term livelihoods are secured.</p> <p>iv) Notice of the Ministry of Labor and Social Security and the Ministry of Land and Resources on Doing a Substantially Good Job in Social Security for Land-expropriated Farmers (MLSS [2007] No.14): All localities shall establish a social security system for land-expropriated farmers as soon as possible. Funds required for social security for land-expropriated farmers shall be fully transferred to the special account and credited to the individual or pooling account within 3 months after the approval of the land acquisition compensation and resettlement plan.</p> <p>v) Implementation Measures for Basic Endowment Insurance for Land-lost Farmers in Gansu Province (GZZ [2021] No.81), farmers, who lost their contracted land (including pasture, grassland) due to unified land acquisition by the government, shall be covered by the social security system. The application shall be prepared by the land expropriated individuals, discussed by the rural collective economic organization or villagers' committee, primarily checked by the township (subdistrict) government, reviewed by county or municipal or district level ARAB or NRB and confirmed by HRSSB. After that, the township (subdistrict) government shall disclose the information within the affected rural collective economic organizations or village committees for no less than 10 days., and then submitted to county or municipal or district level government for approval and HRSSB for registration. Land-expropriated farmers who meet the conditions can choose to participate in the basic endowment insurance for urban workers or social endowment insurance for urban and rural residents on their own will, and the subsidy funds for the participation of land-lost farmers in basic endowment insurance should be included in the project budget, counted as part of the cost of land acquisition, and arranged separately and in full in the compensation costs. The standard for the subsidy funds is the average annual wage of employed persons in full-calibre urban units in the previous year, multiplied by the proportion of land acquired</p>	
v) Restore or replace public infrastructure and community services that may be adversely affected by the Program.	<p>i) Land Administration Law: Article 47: For expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures. If a government at or above the county level is to apply for land acquisition, it shall conduct the current status survey and SSRA, and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.</p> <p>ii) Regulations for the Implementation of the Land Administration Law: Article 25: Municipal/county government of the locality whose land has been acquired shall, upon approval of the LA plan according to law, organize its implementation, and make an announcement in the township and village where land acquisition occurs on the approval organ of the LA, number of the approval document, use, scope and area of the acquired</p>	Consistent.

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	<p>land as well as the rates for compensation of LA, measures for the resettlement of agricultural workers and time limit for completing LA compensation.</p> <p>iii) Real Right Law: Article 36: If any immovable or movable property is damaged, the right holder may request repair, rework, replacement or restoration.</p>	
(vi) Information disclosure, public participation and informed decision-making	<p>i) Land Administration Law: Article 26: Owners or users of the land to be expropriated shall, within the time limit specified in the announcement, go through compensation registration on the strength of the real estate ownership certificate as required by the local land and resources authority. For expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures. Article 47: If a government at or above the county level is to apply for land acquisition, it shall conduct the current status survey and SSRA, and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.</p> <p>ii) Regulations on Letters and Visits: Article 14: The Party Committee and relevant departments of the people's government at all level, as the specific administrative organ in charge of complaint letters and visits, shall perform the following duties: (1) to accept, transmit and assign another organ to handle the letter-or-visit matters; (2) to coordinate efforts in handling important letter-or-visit matters;; (3) to urge and examine the handling of letter-or-visit matters; (4) to reflect the information of letters and visits, analyze and judge the situation of both letters and visits, provide suggestions to party committees and governments for decision making; (5) to provide guidance to other relevant departments of the people's government at the corresponding level and the department or units for letters and visits of the people's government at lower level in their work regarding letters and visit; (6) to provide suggestions for work, policy and accountability improvement; and (7) to undertake other tasks assigned by the Party Committee and people's government at the corresponding level.</p> <p>iii) Document No.1 of the Central Government (2020): Leaders, especially municipal and county leaders, shall pay regular visits to departments at grass-roots level to deal with complaints proactively. Diversified legal services like designating one legal adviser for each village shall be offered, and civil mediation shall be strengthened to ensure that disputes and conflicts are resolved at the village and township level where possible. Unblocked complaint channels shall be made available for farmers to have their reasonable complaints resolved timely and properly.</p> <p>iv) Standard Guide to Grass-root Government Affairs Disclosure on Collective Land Acquisition (June 2019, Ministry of Natural Resources): Efforts shall be made to define matters to be disclosed and the scope of disclosure, standardize the disclosure procedures, improve modes of disclosure, and practically safeguard the people's rights to know, participate, oversee and be heard. The main objectives of public participation at different stages of LAR are as follows:</p> <ul style="list-style-type: none"> • During project preparation, option argumentation and comparison, the project owner and design agency shall conduct meaningful consultation with affected people and other stakeholders, improve the engineering measures, and determine the range of land use based on feedback, thereby evading sensitive objects and minimizing LAR impacts. • Participation at the DMS stage includes land acquisition announcement, DMS publicity, participation in the DMS, and confirmation, disclosure and review of DMS results. • At the SSRA stage, meaningful consultation shall be conducted with stakeholders to assess potential major social risks arising from land expropriation and house demolition, including other major risks that are not directly related to but may materially affect the project. • During the drafting of the compensation plan, the plan should be disclosed to collect comments from affected people, and a public hearing will be held when necessary. • Public participation at the implementation stage mainly includes effective information disclosure and consultation in relation to production and livelihood restoration and the allocation and use of compensation to ensure that opinions of the affected people are heard and agreements are signed through negotiation. 	Consistent.

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	<p>v) Notice on Implementing MNR Requirements on Further Strengthening Temporary Land Use Administration (GZZ [2021] No.81), requiring that TLU agreement shall be signed with the rural economic organizations or village committees in terms of occupying collective land, and confirmation of farmers shall be attached if farmers' contracted land involved.</p>	
<p>Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of indigenous people and vulnerable groups.</p>		
<p>Element 10: Undertake prior informed consultations if the ethnic minorities are potentially affected (positively or negatively) free of charge, to determine whether there is broad community support for the PforR Program activities.</p>	<p>i) Constitution: Article 4: All ethnic groups in the People's Republic of China are equal.</p> <p>ii) Law of the People's Republic of China on Regional National Autonomy: Article 51: In dealing with special issues concerning the various nationalities within its area, the organ of self-government of a national autonomous area must conduct full consultation with their representatives and respect their opinions. Article 52: The organ of self-government of a national autonomous area shall guarantee that citizens of the various nationalities in the area enjoy the rights of citizens as prescribed in the Constitution.</p> <p>iii) Social Stability Risk Assessment of Major Fixed Asset Investment Projects: Article 3: At the feasibility study stage of a project, the PIU (or through a specialized agency) shall conduct an SSRA to identify impacts, propose mitigation measures, and prepare an SSRA report. On the other hand, if a government at or above the county level applies for land acquisition, a current status survey and an SSRA should be conducted for the land to be expropriated. The SSRA report shall be reviewed by experts organized by the designated authority of the county government before being approved. Local governments have issued opinions/notices on the implementation of SSRA, such as the Notice of Gansu Provincial Committee and Government on Issuing Several Implementation Measures for Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions under New Circumstances (GBF [2021] No.33).</p> <p>iv) Land Administration Law (2020): Article 47: For expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures. If a government at or above the county level is to apply for land acquisition, it shall conduct the current status survey and SSRA, and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.</p>	<p>Consistent.</p>
<p>Element 11: Ensure that ethnic minorities can participate in devising opportunities to benefit from exploitation of customary resources and indigenous knowledge, the latter to include the consent of ethnic minorities.</p>	<p>i) Law of the People's Republic of China on Regional National Autonomy: Article 65: While exploiting resources and carrying out construction in national autonomous areas, the state shall give consideration to the interests of these areas, make arrangements favorable to local economic development and pay proper attention to the productive pursuits and the life of local minority nationalities. Article 66: State organs at higher levels shall incorporate major projects for maintaining ecological balance and achieving comprehensive environmental protection in national autonomous areas into national economic and social development plans.</p> <p>ii) Interim Regulations on Major Administrative Decision-making Procedures (2019.9.1): Prior public consultation shall be conducted for decision makings in relation to the development of important plans for economic and social development and other aspects, the development of major public policies and measures to develop, utilize and protect important natural and cultural resources, the implementation of major public construction projects in the administrative region, and other major matters that have a significant impact on economic and social development, involve material public interests, or the immediate interests of the public. Article 14: The decision-making entity shall fully solicit opinions in the form widely available for public participation. Opinions may be solicited in such forms as symposiums, hearings, field visits, written solicitation of opinions from the public, questionnaires, and opinion polls, etc. Article 15: If public opinions are solicited for a matter subject to decision-making, the decision-making entity shall disclose the draft decision and its explanation, and the mode and period of solicitation of public opinions by publicly available means, such as government website, new media, newspapers, radio and TV, etc. The period of solicitation of public opinions is usually not less than 30 days, and explanations shall be made when the solicitation of public opinions begins if such period is to be shortened due to emergencies. For matters of extensive public concern, or highly technical matters, the decision-making entity may make explanations by means of expert interview, etc. Article 16: If any matter subject to decision-making concerns immediate interests of citizens, legal persons or other</p>	<p>Consistent.</p>

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	<p>organizations, or involves a major dispute, a public hearing may be held in accordance with any applicable laws, regulations and rules. The decision-making entity or the organizer of the public hearing shall disclose the draft decision and its explanation in advance, and make clear the time and venue of the public hearing. Article 29: If the public participation procedure is performed, the decision-making entity shall submit the draft decision together with main accepted public opinions to the decision-making authority for discussion. Article 30: When the draft decision is discussed, the meeting attendees shall give opinions adequately, and chief administrative officer shall give a final opinion. If such final opinion differs from the majority opinion, the reason shall be given at the meeting.</p> <p>iii) The 13th Five-Year Plan for Economic and Social Development of Ethnic Minorities-concentrated Areas of Gansu Province setting objectives in the area of accelerating infrastructure construction, poverty alleviation, social programs, ecological construction, industrial restructuring, etc., increasing capital investment to ethnic minority areas, providing more preferential policies and financial support and solving the shortages in their development.</p>	
<p>Element 12: Give attention to groups vulnerable to hardship or discrimination, including, as relevant, the poor, the disabled, women and children, the elderly, ethnic minorities, racial groups, or other marginalized groups; and if necessary, take special measures to promote equitable access to PforR Program benefits, and if necessary, take special measures to promote equitable access to PforR Program benefits.</p>	<p>i) Notice of the State Council on Issuing the 13th Five-year Plan for Promoting the Development of Minority Areas and Smaller Ethnic Minorities (SC [2016] No.79): The development of advantaged and characteristic industries, especially stockbreeding and traditional handicrafts, of poor ethnic minority areas and villages shall be supported, and efforts shall be made to achieve rural revitalization and poverty alleviation by developing village-specific leading products and industries and making use of the Internet in poor villages. Poverty alleviation by e-commerce, photovoltaic, rural tourism, etc. shall be implemented to increase local residents' income, and major infrastructure and construction projects shall be carried out in ethnic minority areas to improve livelihoods. Basic social service mechanisms in ethnic minority areas shall be improved to provide support in old-age services, social assistance, social welfare, special care and resettlement. The disaster assistance and emergency relief system for natural disasters shall be improved in ethnic minority areas. Urban and rural minimum living security (MLS) standards for ethnic minority areas shall be fixed rationally, and the sound development of public welfare and charity programs shall be supported.</p> <p>ii) The Opinions on Reform and Improvement of the Social Assistance System (ZBF [2020] No. 18) calls for the integrated development of the social assistance system, the consolidation of the results of the poverty eradication campaign, and the practical realization of the bottom line of basic livelihood protection. Families in which the per capita income of family members living together is less than the local minimum subsistence guarantee standard and in line with the property status regulations are given minimum subsistence guarantee. For urban and rural elderly people, persons with disabilities, and minors who are unable to work, have no source of livelihood, and have no legal obligor to provide support or maintenance, or whose legal obligor has no ability to fulfill his or her obligations, they are provided with assistance and sustenance for persons in special hardship. At the same time, special social assistance in the areas of medical care, housing, education and employment is provided in accordance with actual needs. For low-income families that do not meet the requirements for low-income insurance or special hardship support, and for families with large rigid expenditures that cause serious difficulties in their basic lives, special social assistance in the form of medical care, housing, education, employment, etc. is provided in accordance with actual needs, or other necessary assistance measures are implemented. Families or individuals suffering from emergencies, accidental injuries, major illnesses, public health emergencies such as infectious disease outbreaks, or other special reasons that lead to temporary difficulties in their basic lives, as well as those who are in temporary distress and have no means of subsistence, are provided with social assistance in emergencies. In the event of a natural disaster, assistance is provided to those affected by the disaster.</p> <p>iii) Several Measures on Reform and Improvement of the Social Assistance System (GBF (2021) No. 5) focuses on creating a multi-level assistance system, continuously expanding the ways of providing social assistance, promoting the integrated and coordinated development of urban and rural areas, improving the minimum subsistence guarantee system, improving the system of providing assistance and support to people in special hardship, improving the mechanism for dynamic adjustment of assistance standards, and improving the mechanism for dynamic management of assistance recipients. The provincial and municipal civil affairs departments have formulated detailed requirements and specifications for such work as strengthening guidance and supervision of the dynamic management of social assistance.</p>	<p>Consistent.</p>

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	<p>iv) The 14th Five-Year Plan of Civil Affairs of Gansu Province (2021.10.15) sets 15 key development targets, 12 specified fields, 24 engineering projects and 89 key tasks in the aspects of basic livelihood guarantee, basic social services, elderly care services, etc., covering social assistance, elderly care services, children's welfare, grassroots social governance, basic social services, social organization development, philanthropy and social work, regional name management services, "five modernizations" of new Gansu civil affairs. The Plan requires that by 2025: the annual growth rate of MLS in rural areas shall be no lower than that of per capita consumption expenditure of the previous year; the MLS standard in urban and rural areas accounts for more than 75% of that in urban areas; living subsidies are provided to all financially-challenged disabled people; nursing care allowances are offered to all severely disabled people; trans-provincial marriage registration is fully achieved; all vagrants and beggars with known identity information are returned to their homes; nonprofit cremains burying (storage) facilities are available in all counties; at least 55% of beds in elderly care institutions meet requirements for nursing care; comprehensive elderly care institutions are accessible in 50% of townships (sub-districts); minor protection centers are available in 50% of townships (sub-districts); the number of social service professionals stands at 24,000; volunteer service centers account for 80% of comprehensive urban and rural community service facilities; the area of comprehensive community service facilities accessible by every 100 residents tops 30 square meters; and the number of full-time employees of social organizations reaches 300,000.</p> <p>v) Other poverty alleviation policies: In China, poor households refer mainly to those below the minimum living security (MLS) standard, and are classified into: a) MLS households, whose per capita annual income is below the MLS standard. MLS standards and relevant policies are updated by the local governments every year. In 2023, the MLS standard is 8,400 yuan per capita per annum in urban areas and 5,580 yuan per capita per annum in rural areas in Gansu Province; and b) extremely poor persons, old and disabled persons and persons under 16 years with no ability to work, no income source, or statutory supporter, or whose statutory supporter is incapable to support. In 2023, extremely poor persons in urban and rural areas of Gansu Province were eligible for financial support of 10,920 RMB per person per annum and 7,260 RMB per person per annum respectively in Gansu Province. These poor households receive full support from the Chinese government in food, clothing, medical care, housing, children education, and basic income which is no less than the local MLS standard. All localities shall establish files for the poor households, and offer living and housing subsidies, free children education, interest-free loans, special occupational training, and priority in job placement, etc.</p> <p>vi) Law of the People's Republic of China on the Protection of Women's Rights and Interests (2022 Revision): Article 40: sexual harassment against women is prohibited and victims have the right to file complaints with relevant units; Article 41: Women shall enjoy the same labor and social security rights as men. Article 45: Men and women shall receive equal pay for equal work, and women shall enjoy the same remuneration rights as men. Article 47: Employer shall protect women's health, safety and time for rest at work. Women shall receive special protection during menstruation, pregnancy, lying-in and breastfeeding. Article 48: No employer shall reduce female workers' salaries and welfares, restricted female workers from career promotion and professional and technical titles and posts evaluation and assignment or dismiss female workers or unilaterally terminate the labor (employment) contract or service agreement with them on the basis of marriage, pregnancy, lying-in and breastfeeding. Article 50: The state shall develop social insurance services, ensure that women are entitled to social insurance, social assistance, and social welfares, and encourage and support public welfare activities for women. Article 51: The state shall implement maternity insurance system and establish a sound security system for women in other aspects like baby care service.</p> <p>vii) Outline for Women's Development in China (2021-2030): The overall objective is to fully implement the basic state policy of gender equality to innovate and improve the systems and mechanisms for promotion gender equality and women's all-round development. Women have equal access to a full range and whole life-cycle health services, and their health will be improved continuously. Women enjoy equal rights to education, and their quality and ability will be continuously improved. Women enjoy equal economic rights and interests, and their economic status will be steadily improved. Women enjoy equal political rights, and their participation in the administration of country, economic, cultural, and social affairs will be gradually improved. Women enjoy equal access to multi-level and sustainable social security, and their treatment levels will be steadily improved. The policies and regulations for supporting family development will be improved, and the new trend of socialist family civilization will be</p>	

PforR core principles/ elements	China's E&S management requirements and practices	Consistency and recommendations
	<p>widely promoted. The concept of gender equality become more popular, and the environment for women's development will be improved. The legal system will be improved to protect women's legitimate rights and interests effectively. Women's sense of gain, happiness and security will be increased significantly.</p> <p>viii) The Gansu Provincial Women's Development Plan (2021-2030) (2021.12.30) sets eight areas for women's development: health, education, economy, participation in decision-making and management, social security, family building, environment, and law, and puts forward 75 major goals and 93 strategic measures.</p> <p>ix) The Law of the People's Republic of China on the Protection of Minors (Revised in 2020) stipulates that minors enjoy all rights equally in accordance with the law, and are not discriminated against on the basis of their ethnicity, race, gender, household registration, occupation, religious beliefs, level of education, family status, or physical or mental health status, or that of their parents or other guardians. The law has made detailed provisions on the protection of minors in family, school, society, network, government and judiciary.</p> <p>x) The Gansu Provincial Child Development Plan (2021-2030) (2021.12.30) puts forward 70 major goals and 89 strategic measures in seven areas of child development: health, safety, education, welfare, family, environment and legal protection.</p>	
Principle #6: Program	E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.	
Element 13: Consider conflict risks, including distributional equity and cultural sensitivities.	Not relevant.	

Appendix 4: Stakeholder Analysis

The ESMS of the PforR Program will involve different stakeholders, including individuals, government authorities and other agencies. Stakeholders are either affected by any activity or affect the construction and operation of any activity. Therefore, for each activity under the Program, stakeholders involved will be identified through a mechanism. Stakeholders under each type of outcomes under the ESMS of the PforR Program are consistent, including affected parties, interested parties and management authorities. Refer to Appendix 4-1 for the result of stakeholder identification and analysis on the basis of the investigations conducted for the Program.

Appendix 4-1: Stakeholder Identification and Analysis

Result Area	Typical activities	Affected entities	Interested entities	Management agencies
RA1 Promoting sustainable grassland management	<ul style="list-style-type: none"> Develop sustainable community (or village) grasslands management plans 	<ul style="list-style-type: none"> Livestock farmers Households of contracted grasslands 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the development of the low-income, women and ethnic minorities 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level FGBs, ARABs, NRBs, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Apply CSA technologies in grasslands management 	<ul style="list-style-type: none"> Households of contracted grasslands Livestock farmers 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Service providers 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level FGBs, ARABs, NRBs, EEBs, Natural Reserves Administration Agencies, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Restore degraded grasslands where grassland-livestock balance system implemented 	<ul style="list-style-type: none"> Households affected by occupation of grasslands Livestock farmers 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the development of the low-income, women and ethnic minorities Service providers 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level FGBs, ARABs, NRBs, EEBs, Natural Reserves Administration Agencies, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Apply CSA technologies in artificial forage plantation 	<ul style="list-style-type: none"> Households affected by occupation of grasslands Livestock farmers Forage planters 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level FGBs, ARABs, NRBs, Natural Reserves Administration Agencies, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Provide safeguard and supporting technical measures for pest control and fire prevention for grassland biodiversity conservation 	<ul style="list-style-type: none"> Households affected by acquisition or occupation of grasslands 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Service and goods providers 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level FGBs, NRBs, EEBs, Natural Reserves Administration Agencies, etc. County governments Township governments Village (community) committees
RA2- Increased Sustainability and Reduced Emission from	<ul style="list-style-type: none"> Construction or upgrading livestock breeding and farming facilities run by 	<ul style="list-style-type: none"> Enterprises or individuals engaged in livestock breeding 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level ARABs, AHVMBs, NRBs, EEBs, etc. County governments

Result Area	Typical activities	Affected entities	Interested entities	Management agencies
the Livestock Sector	enterprises, cooperatives, smallholders who adopt low emission technologies practice, undertaking livestock certificate with green and organic/low emission indications	<ul style="list-style-type: none"> Livestock farming enterprises, zones, cooperatives and individuals Villages or residents affected by land acquisition or land occupation 	<ul style="list-style-type: none"> development of the low-income, women and ethnic minorities Service and goods providers 	<ul style="list-style-type: none"> Township governments Village (community) committees
	<ul style="list-style-type: none"> Upgrade the livestock slaughtering, processing, cold chain logistics and market facilities 	<ul style="list-style-type: none"> Villages or residents affected by land acquisition or land occupation 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the development of the low-income, women and ethnic minorities Service and goods providers 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level ARABs, AHVMBs, NRBs, Industry and Information Technology Bureaus , EEBs, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Upgrade livestock and poultry manure treatment facilities for livestock farms/zones/individuals Construct straw for forage use processing facilities 	<ul style="list-style-type: none"> Livestock farming enterprises, zones, cooperatives and individuals Villages or residents affected by land occupation 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Organic fertilizer producers Service and goods providers; 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level ARABs, EEBs, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Increase animal health service capacity by equipping veterinary service labs and agro-food quality testing labs at county level 	<ul style="list-style-type: none"> Villages or residents affected by land occupation Workers in laboratory 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Service and goods providers; 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level ARABs, AHVMBs, etc. County governments Township governments Village (community) committees
	<ul style="list-style-type: none"> Collect, transfer, and sanitary disposal of dead and diseased animals 	<ul style="list-style-type: none"> Livestock farming enterprises, zones, cooperatives and individuals Villages or residents affected by land acquisition or land occupation 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the development of the low-income, women and ethnic minorities Service and goods providers 	<ul style="list-style-type: none"> Competent departments, such as provincial and county-level ARABs, AHVMBs, EEBs, etc. County governments Township governments Village (community) committees
	RA3-Improved Governance System for Sustainable and Low Emission Livestock Sector Management	<ul style="list-style-type: none"> Establish incentive system for promoting sustainable grassland management and low emission technologies Strengthen technical capacity & regulatory framework for low emission livestock value chain 	<ul style="list-style-type: none"> Livestock farming enterprises, zones, cooperatives and individuals Households of contracted grasslands Forage planters Livestock products processing, logistic transporting, retail 	<ul style="list-style-type: none"> Individuals or organizations concerned about ecological environment Individuals and organizations concerned about the development of the low-income, women and ethnic minorities

Result Area	Typical activities	Affected entities	Interested entities	Management agencies
	<ul style="list-style-type: none"> • Develop MRV protocols for grassland and livestock sector 	enterprises and its employees <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Individuals or organizations concerned about ecological environment • Individuals or organizations concerned about public health and wellness 	<ul style="list-style-type: none"> • Provincial and county-level ARABs, AHVMBs, EEBs, HCs, MSAs, etc.

Appendix 5: Stakeholder Engagement

No.	Date	Venue	Authorities involved	E&S topics
1	2023.10.16-17	Lanzhou New District of Gansu Province	PPMO, AFWB, NRB, EEB, EMB, HC, Bureau of CPC, Civil Affairs, Justice and Social Security Bureau, CTB, Agricultural Investment Group, Animal and Plant Inspections and Quarantine Laboratory, representatives of livestock farming bases, forage planting base, etc.	<p>Consultations with E&S competent departments and site survey in Lanzhou New District:</p> <ul style="list-style-type: none"> • Large-scale forage planting bases • Large-scale livestock farms • Animal and plant inspection and quarantine • Land consolidation • Livestock and poultry manure treatment and resource utilization facilities • Harmless collection and disposal of animals died of diseases • Fine breed reproduction • Animal diseases prevention and control • E&S risks and impacts, corresponding management system and performance at county, township levels • Interviews with representatives of forage planting enterprises and livestock farming enterprises
2	2023.10.18	Provincial DARA	PPMO, provincial DRC, DOF, DARA, AHVMB	<p>Kick-off meeting:</p> <ul style="list-style-type: none"> • PforR objectives, scope, result areas, DLIs, etc. • ESSA arrangements
3	2023.10.19-21	Provincial DARA	PPMO, provincial DARA, AHVMB, FGB, DNR, DEE, PLAC, HC, HRSSB, CAB, EAC, RRB, WRB, MSA, etc.	<p>Consultations with provincial E&S competent departments:</p> <ul style="list-style-type: none"> • Sustainable grassland management plans • The low-emission livestock development plans • Grassland protection and ecological restoration • Livestock farming management system • E&S risks and impacts, corresponding management system, institutional arrangements and procedures at provincial level
4	2023.10.21-23	Guazhou County of Jiuquan City	PPMO, county-level ARAB, AHVMB, FGB, NRB, EEB, PLAC, HC, HRSSB, CAB, EAC, RRB, MSA, WRB, Women's Federation, PCPAB, CTB, etc.	<p>Consultations with county-level E&S competent departments and site survey:</p> <ul style="list-style-type: none"> • Livestock farming facilities and management • Animal diseases prevention and control • Livestock and poultry manure treatment and resource utilization facilities • Forage planting and processing facilities • Straw processing facilities • Harmless collection and disposal of animals died of diseases • Livestock slaughtering, processing, cold chain and logistic facilities • Certification of livestock products • Grassland protection and management • Grassland ecological restoration projects and facilities • Trainings on high-quality farmers / new agricultural business entities • Management of land acquisition and house demolition, LURT, FALU • Implementation of SSRA • OHS management and supervision • The implementation of GRMs, such as public complaints, labor disputes remediation and arbitration, etc. • The development of ethnic minorities • assistance to vulnerable groups, management and monitoring of the people lifted out of the poverty • Women's right and interest protection and women's development • Cultural relics protection
5	2023.10.24-25	Sunan County of Zhangye City		
6	2023.10.26-27	Jingchuan County of Pingliang City		
7	2023.10.21	Guazhou	Huiyuan village and Xinhua	

No.	Date	Venue	Authorities involved	E&S topics
		County of Jiuquan City	village in Guazhou County	Consultation with people of ethnic minority-concentrated villages in Guazhou County and Sunan Yugur Autonomous County
8	2023.10.24	Sunan County of Zhangye City	Dacaotan village and Songmutan village in Sunan Yugur Autonomous County	<ul style="list-style-type: none"> • Introduction of the PforR; • Communication and understanding of local environment, ethnic culture/resources, and livelihood; • Communication of the PforR activities and potential E&S impacts, and confirm that no negative impacts like land acquisition, income and livelihood impact, or impact on culture/resources to ethnic minority peoples, but bring improvement of local grassland management and livestock development, increase of income and improvement of ecological environment; • Confirmation that the ethnic people support the implementation of the PforR.
9	2023.10.30	Online	PPMO, 7 CPMOs, provincial DARA and county-level ARABs	<p>Wrap-up meeting:</p> <ul style="list-style-type: none"> • Key findings of the E&S due diligence • Subsequent ESSA arrangements
10	2023.11.28	Online	PPMO	Communicate with the PPMO on the draft ESSA, findings and recommendations.

Appendix 6: Feedback of the Public Consultation on the ESSA

No.	Issues	Comments	Advised by	Report Revision
About the PforR Activities				
1	Appendix 1: about the typical activities under provincial and county-level government programs	It's suggested to update according to the project list which is still under preparation, and all activities in the project list are strongly linked to the RAs and DLIs and shall not be excluded.	Provincial DARA	It is aligned that the table will be updated accordingly when the latest list of typical activities is defined jointly by the Bank technical team and Gansu. And the E&S team also explained that activities with high E&S risks will be excluded.
2	Full text: the description of the project counties is not accurate	It's suggested to updated all "project counties" to "project counties (district)"; Use a unified unit of grassland area	Provincial DARA	Updated.
About E&S impacts/risks				
3	Section 3.5: about the E&S risk rating	Is it the same with the risk rating of SSRA?	Jingchuan PLAC	The E&S team made an explanation to all government departments that it is two different and separate risk rating mechanism.
4	About the environment impacts identification and mitigation	The impacts on biodiversity should be considered.	Technical expert hired by the PPMO	Updated in Section 3.4.1 and Appendix 8.
About the versions and sufficiency of regulatory documents				
5	Table 5-1 and Para 163: the applicable land acquisition and compensation policy has been updated	It is suggested to replace the "Gansu Province Block Compensation Land Price on Farmland Acquisition (GZF [2020] No.41)" by "Notice of the Gansu People's Government on Issuing Standard of Block Compensation Land Price on Farmland Acquisition (GZF [2023] No.55)"	Provincial DNR	Updated
6	Para 178, 179 and Appendix 3: About the date of issuing Plan of Gansu Province for Women's Development (2021-2030) (GZF [2021] No.91) and Plan of Gansu Province for Children's Development (2021-2030) (GZF [2021] No.91) is not accurate	It's suggested to update the date as "2021.12.30"	Provincial Women's Federation Jingchuan Women's Federation	Updated
7	Table 5-1: The date of issuing the Special Rules on the Labor Protection of Female Employees (Decree No.619 of the State Council) (May 2012) is not accurate	It's suggested to update "May 2021" to "2021.4.28"	Provincial HRSSB	Updated.
8	Measures on Environmental Complaints	The version of 1997 and 2006 has expired	Provincial PCPA	Updated to the latest regulations on letters and visits and relevant environment laws and regulations revised in 2021.
9	About the version of applicable laws and regulations on EIA and information disclosure of construction projects	It's suggested to delete the information disclosure mechanism of EIA of construction projects, and update the relevant provisions and timeframe of three times of information disclosure by construction unit and two	Provincial DEE	Updated in Section 4.2

No.	Issues	Comments	Advised by	Report Revision
		announcements and one public notice by the competent authority as stipulated in the Measures for Public Participation in EIA issued by the MEE in 2018.		
10	About the version and applicability of relevant laws and regulations on soil and water conservation	The Management Regulations on the Preparation and Approval of Soil and Water Conservation Plan for Development and Construction Projects has expired. It is suggested to replace it by the Management Measures for the Soil and Water Conservation Plan of Construction Projects which is published in 2023 and update the Table 4-14 accordingly. Some technical specifications presented in the draft report are not applicable to the PforR Program. It is suggested to update it.	Provincial WRB	Updated in Section 4.4.2
About policy analysis and understanding				
11	Para 143: About the process of land acquisition and compensation	It's suggested to update as "For any project involving land acquisition and house demolition, the Land Administration Law (effective from January 1, 2020) requires that the government at or above the county level shall be the responsible party of announcement and implementation. Before land application submission, DMS and SSRA should be conducted and the key information, e.g. the purpose and boundary of land acquisition, current status, compensation rate, resettlement mode, social security, etc. should be disclosed in the township (town), village and village group for at least 30 days, to collect comments from the affected rural collective economic organization and its members, village committee and other stakeholders. Upon completion of the relevant preliminary work, local people's governments at or above the county level may apply for land acquisition, and make land acquisition announcement and implementation upon approval in accordance with legal procedures."	Provincial DNR	Updated.
12	Para 148: About the explanation of underage workers	It is suggested to update "16-18 years" as "above 16 years old and below 18 years old".	Provincial HRSSB	Updated.
13	Appendix 3: About the process of social insurance for land lost farmers	It's suggested to update "for no less than 10 days" to "for no less than 5 days"; update "and the government provide corresponding subsidies to land-expropriated farmers. The standard of subsidy funds for land expropriation insurance is the provincial average annual salary of workers of the previous year multiplied by the proportion of land expropriated" to "subsidy funds for the participation of land-lost farmers in basic endowment insurance should be included in the project budget, counted as part of the cost of land acquisition, and arranged separately and in full in the compensation costs. The standard for the subsidy funds is the average annual wage of employed persons in full-calibre urban units in the previous year, multiplied by the proportion of land acquired."	Provincial HRSSB	As checked with the HRSSB, the period of disclosure remains unchanged and the rest has been updated.
14	Para 266:	It's suggested to update "township labor	Provincial HRSSB	Updated

No.	Issues	Comments	Advised by	Report Revision
	About the GRM for labor disputes	dispute mediation center” and “county government’s labor mediation center” to “township labor disputes mediation center” and “county-level labor disputes mediation center”.		
About analysis of E&S management systems				
15	Para 221: the description of cultural relics	It’s suggested to update the “national cultural relics protection unit” to “national key cultural relics protection unit”.	Provincial CHAB	Updated
16	About the cultural relics review of the PforR Program	It is recommended that the Grassland Management and Livestock Development Program should avoid immovable cultural relics as far as possible in the process of planning and site selection. The agricultural construction projects within the protection scope and construction control zone of cultural relics protection units and the area of immovable cultural relics which has not been approved and announced as cultural relics protection unit, should carry out reporting and approval procedures in accordance with the relevant laws and regulations for cultural relics protection.	Provincial CHAB	It has been communicated and aligned with the PPMO and CPMOs.
17	Section 5.3.3: about the description of spatial planning of national land	It’s suggested to change all “overall land use planning” to “overall spatial planning of national land”.	Provincial DNR	Updated.
18	Full text: about the description of ethnic minority	It’s suggested to update “EM village” to “EM concentrated village”, “EM township” to “EM-concentrated township”, “EM autonomous area” to “ethnic autonomous area”.	Provincial EAC	Updated
19	Section 5.2.5 and Section 5.4.5: About the ethnic minority management system	It’s suggested to separate the ethnic minority management system from vulnerable groups management system.	Provincial EAC	the ethnic minority management system is discussed separately from the vulnerable groups by elements. The E&S team has made an explanation and accepted by the provincial ERAB.
20	Para 258: About the low-income management system	The competent authority of the low-income is the CAB, and the RRB is responsible for the monitoring and management of people who are lifted out of poverty and those prone to poverty.	Provincial RRB	Updated.
21	Para 251: About the data of ethnic minority in Zhengning County	It should be updated as “there are 23 ethnic minority groups with a total population of 2785, accounting for 1.15% of the total population. Among them, 2592 are the Hui people, accounting for 93% of the total population of ethnic minority; there is one ethnic minority concentrated township and 3 EM-concentrated villages”.	Zhengning EAC	Updated.
22	Section 5.3.5 and Para 254: About the description of ethnic minority	It’s suggested to delete all words about religious belief.	Zhengning EAC	Updated.
23	Para 193: About the Joint Prevention and Control Mechanism for Brucella melitensis	It is suggested to update as “With regard to brucellosis, anthrax and other zoonotic diseases involved in the livestock development industry under this PforR, in the case of brucellosis, the HC and AHVMB has established a joint prevention and control	Provincial HC	Updated.

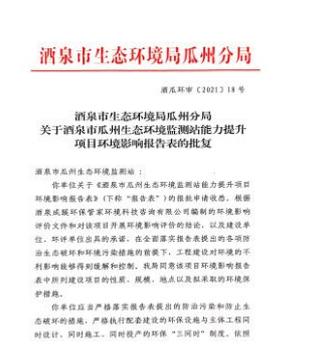
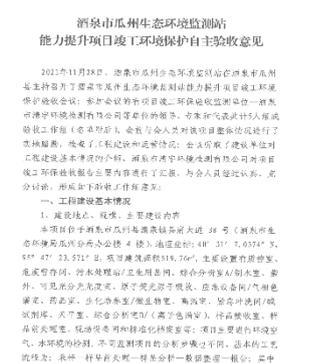
No.	Issues	Comments	Advised by	Report Revision
		mechanism at the provincial level, exchange monitoring information on a monthly basis, regularly analyze and examine the outbreak, and jointly carry out research and supervision in key areas."		
24	Section 5.4.1: About the technical staff of Jingchuan county AHVMB	The description is not accurate. It is suggested to update as "County Animal Husbandry and Veterinary Medical Center assigns professional technician to Jingchuan County Yudu Town Shengtong Livestock Farming Cooperatives as the cooperatives' designated technician."	Jingchuan DARA	Updated.
25	Para 233: About the address mechanism of labor disputes	It's suggested to update as "In the event of a labor dispute, the employee may file a complaint with the labor security supervisory agency of the local HRSSB. The labor security supervisory agency will file a case for investigation and handling within 5 working days after receiving the complaint that meet the principle of acceptance. Generally, it's required to address the complaint within 60 working days, which may be extended for up to 30 working days for cases in complex situations with the approval of the head of HRSSB. It can also apply for labor disputes arbitration. The effective period for applying for arbitration of labor disputes is one year."	Provincial HRSSB	Updated.
26	Appendix 8: About the purchase of social insurance	It's suggested to update "purchase...insurance" to "pay for ...insurance".	Provincial HRSSB	Updated.
27	Para 173 and Appendix 3: About the standards of urban and rural MLS and subsidies for urban and rural people in extremely hardship	It's suggested to use the standards of 2023.	Provincial CAB	Updated.
28	Full text: About the description of basic farmland	It's suggested to update all "basic farmland" to "permanent basic farmland" according to the revised policies.	Provincial DNR	Updated.
About institutional organization, roles, and responsibilities				
29	Section 5.3.5: About the responsibilities of provincial ERAB	It's suggested to update according to the feedback provided.	Zhengning EAC	Updated.
30	Section 5.3.4 and Section 5.3.6: About the responsibilities of Women's Federation (WF)	It's suggested to update as "protect the legal rights and interests of women and children, provide assistance to aggrieved women and children" and "responsible for uniting and mobilizing women to play a unique role in society and family, protecting the legal rights and interests of women and children, providing assistance to aggrieved women and children, promoting the implementation of the basic national policy of gender equality." respectively.	Provincial Women's Federation	Updated.
31	Section 5.3.3: About the responsibilities of HRSSB	It's suggested to update as "The HRSSB is responsible for calculating of subsidy funds for the social insurance of land-lost farmers, processing the participation and payment of insurance premiums, approving and disbursing the pension, and doing a good job of managing the subsidy funds for land-lost	Provincial HRSSB	Updated.

No.	Issues	Comments	Advised by	Report Revision
32	Para 192: About the institutional organization of Jingchuan HC	farmers.” It’s suggested to update “At the same time, public medical institutions qualified for occupational health examination are set up in Jingchuan County, including County Hospital, county disease prevention and control center, township hospital and community health service centers” as “At the same time, public medical institutions qualified for occupational health examination is set up in Jingchuan County, namely County Hospital”; the staff number of the Health and Wellness Affairs Center should be updated as 5.	Jingchuan HC	Updated.
33	Full text: about the name of NRB	The NRB and Planning Bureau has been combined as one department, it should be updated as “NRB”.	Provincial DNR	Updated.
34	About the responsibility of EIA competent authorities	the qualifications of consulting agencies for the preparation of EIA and the manner of registration and filing of EIA are not accurate, and there is no mandatory requirement for technical assessment before the approval of EIA. The statement of environment protection acceptance upon project completion shall be conducted by construction unit independently is not precise enough.	Provincial DEE Jingchuan EEB	Updated in Section 4.2 and Appendix 3
35	Para 93: About the responsibility of EEB on “three lines and one list”	The definition of three lines and one list as well as the responsibilities of EEB at provincial and municipal level on three lines and one list is not accurate and need to be updated.	Provincial DEE	Updated in Section 4.4.1 and Para 93.
36	The role of environment law enforcement team on livestock and poultry pollution prevention and supervision	As specified in the 14th Five Year Plan on Livestock and Poultry Pollution Prevention of Gansu Province and the Implementation Plan of Agriculture Exempted from Pollution Control and Supervision in Gansu Province, the environment law enforcement team is also responsible for supporting and urging livestock farming enterprises to implement pollution prevention and control in addition to environment regulatory responsibilities.	Provincial DEE	Updated in Section 4.3.1

Appendix 7: Field Visit Records

Photologs for Chapter 4 on Environmental Management System Assessment

4-3 EMS for livestock breeding and farming

			
<p>Fig.4-3-1 Exhaust gas deodorizer installed in Tianxin Livestock Farming Demonstration Base in Lanzhou New District</p>	<p>Fig.4-3-2 Manure collection tank installed in the New Plateau Livestock Farming demonstration base in Lanzhou New District</p>	<p>Fig.4-3-3 Feed processing plant in the New Plateau Livestock Farming demonstration base in Lanzhou New District</p>	<p>Fig.4-3-4 Lab management procedures formulated by Agricultural Technology Service Center of Lanzhou New District</p>
			
<p>Fig.4-3-5 Dry manure dump in Guazhou Breeding Center</p>	<p>Fig.4-3-6 Dry manure dump in Guazhou Ecological Circular Agricultural Sectoral Park.</p>	<p>Fig.4-3-7 Organic Fertilizer Production Center in Guazhou Ecological Circular Agricultural Sectoral Park</p>	<p>Fig.4-3-8 Rules and Measures formulated by entity running Guazhou Ecological Circular Agricultural Sectoral Park</p>
			
<p>Fig.4-3-9 Sanitary disposal of dead and diseased animals in Guazhou Ecological Circular Agricultural Sectoral Park)</p>	<p>Fig.4-3-10 Livestock farming zone run by household in Qigong Village of Guazhou County</p>	<p>Fig.4-3-11 isolation room for diseased animal in a livestock farming zone run by cooperative.</p>	<p>Fig.4-3-12 manure dump and fermentation tank run by cooperative</p>
			
<p>Fig.4-3-13 Approval Document of EEB on EIA-form for a regional center for comprehensive treatment and resources utilization of livestock & poultry manure in Sunan County.</p>	<p>Fig.4-3-14 Form filled by Xinniuwang Livestock Farming Cooperative for registration at EEB for endorsement.</p>	<p>Fig.4-3-15 Approval Document of Jiuquan Municipal EEB on EIA-form of a project for increased ecology & environmental monitoring capacity of Guazhou County</p>	<p>Fig.4-3-16 Opinion of Jiuquan Municipal EEB on environmental acceptance check at construction completion of increased ecology & environmental monitoring capacity of Guazhou County</p>

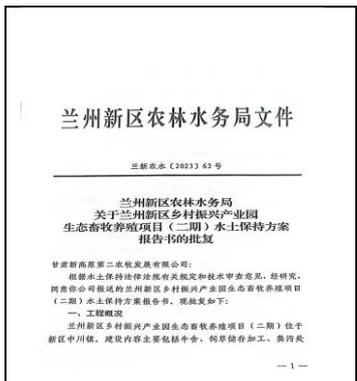
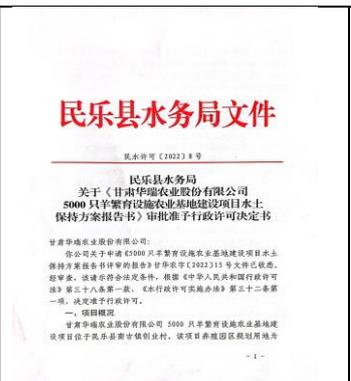
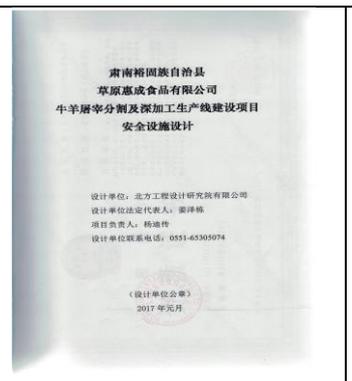
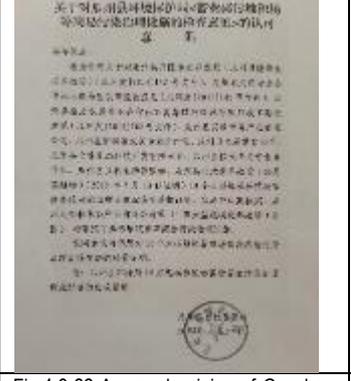
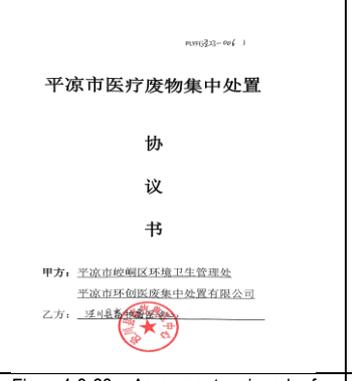
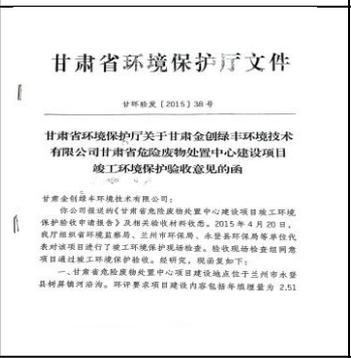
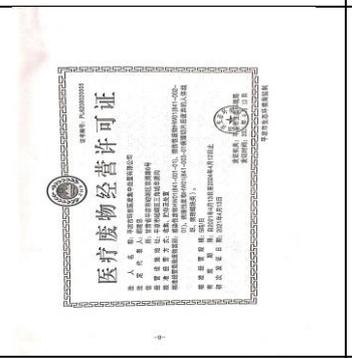
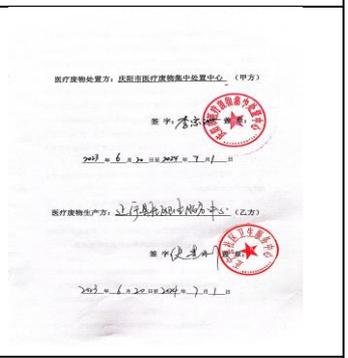
 <p>兰州新区农林水务局文件</p> <p>兰新农水〔2023〕63号</p> <p>兰州新区农林水务局 关于兰州新区乡村振兴产业园生态畜牧养殖项目(二期)水土保持方案报告书的批复</p> <p>甘肃华瑞农业股份有限公司: 你公司关于申报2023年乡村振兴产业园生态畜牧养殖项目水土保持方案报告书的请示(甘农水字〔2023〕15号)文件已收悉。经审查,该请示符合法定条件,根据《中华人民共和国行政许可法》第三十八条第一款,《行政许可实施办法》第三十二条第一款,决定准予行政许可。</p> <p>一、项目概况 兰州新区乡村振兴产业园生态畜牧养殖项目(二期)位于新区中川镇,建设内容主要包括牛舍、饲草加工、粪污处</p> <p>— 1 —</p>	 <p>民乐县水务局文件</p> <p>民水字〔2023〕8号</p> <p>民乐县水务局 关于《甘肃华瑞农业股份有限公司5000只羊繁育设施农业基地建设项目建设方案报告书》审批准予行政许可决定书</p> <p>甘肃华瑞农业股份有限公司: 你公司关于申报2023年乡村振兴产业园生态畜牧养殖项目水土保持方案报告书的请示(甘农水字〔2023〕15号)文件已收悉。经审查,该请示符合法定条件,根据《中华人民共和国行政许可法》第三十八条第一款,《行政许可实施办法》第三十二条第一款,决定准予行政许可。</p> <p>一、项目概况 甘肃华瑞农业股份有限公司2000只羊繁育设施农业基地建设项目建设方案报告书,项目位于民乐县南关镇,项目占地面积规划用地</p> <p>- 1 -</p>	 <p>肃南裕固族自治县 草原惠成食品有限公司 牛羊屠宰分割及深加工生产线建设项目 安全设施设计</p> <p>设计单位:北方设计研究院有限公司 设计单位法定代表人:姜泽峰 项目负责人:杨德博 设计单位联系电话:0551-45305074</p> <p>(设计单位公章) 2017年元月</p>	 <p>张掖市生态环境局民乐分局文件</p> <p>张环民乐〔2023〕41号</p> <p>张掖市生态环境局民乐分局 关于印发民乐县2023年4月份生态环境执法现场检查工作计划的通知</p> <p>局属各执法、生态环境保护综合行政执法队,环境监测站: 根据《民乐县2023年4月份生态环境保护执法监督检查工作计划》随文印发给你,请认真贯彻执行。</p> <p>张掖市生态环境局民乐分局 2023年3月21日</p> <p>— 1 —</p>
<p>Fig.4-3-17 Approval Document of WRB on WSC scheme report for a livestock farms project located in rural revitalization industrial park of Lanzhou New District</p>	<p>Fig.4-3-18 Approval Document of WRB on WSC scheme report for facility agriculture base to be used for sheep breeding (with stock capacity of 5000) facility run by Gansu Huarui Agricultural Corporation Limited in Minle County</p>	<p>Fig.4-3-19 safety facilities design for sheep & cattle slaughtering, splitting and deep processing production lines run by Grassland Huicheng Agro-food Co. Ltd of Sunan County.</p>	<p>Fig.4-3-20 Notice of Zhangye Municipal EEB on a Plan for on-site inspection of ecological and environmental law enforcement</p>
 <p>张掖市生态环境局肃南分局 肃南裕固族自治县农业农村局文件</p> <p>张环肃南〔2023〕58号</p> <p>张掖市生态环境局肃南分局 肃南县农业农村局 关于印发肃南县农业面源污染防治监管指导实施方案(试行)的通知</p> <p>各乡(镇)人民政府: 为持续推进农业面源污染防治和监管指导工作,促进农业绿色发展,经局会商县农业农村局,制定了《肃南县农业面源污染防治和监管指导实施方案(试行)》,现印发给你们,请认真贯彻执行。</p> <p>张掖市生态环境局肃南分局 肃南县农业农村局 2023年3月24日</p>	 <p>平凉市医疗废物集中处置 协议书</p> <p>甲方:平凉市崆峒区环境卫生管理处 平凉市环创医废集中处置有限公司 乙方:泾川县畜牧兽医中心</p>		
<p>Fig.4-3-21 Notice of Sunan Branch of Zhangye Municipal EEB and Sunan County ARAB on issuing and distributing the Implementation Plan of Agricultural NPS pollution Control and Supervision in Sunan County (trial)</p>	<p>Fig.4-3-22 Approval opinion of Guazhou branch EEB on the "A inspection opinion of livestock and poultry manure storage yard and other simple pollution treatment facilities"</p>	<p>Fig. 4-3-23 Agreement signed for disposal of medical waste generated by Jingchuan County Veterinary Service Center</p>	<p>Fig.4-3-24 Unified fills for transferring hazardous waste generated by Minle County Veterinary workstations.</p>
	 <p>甘肃省环境保护厅文件</p> <p>甘环函〔2015〕36号</p> <p>甘肃省环境保护厅关于甘肃金创绿丰环境技术有限公司甘肃省危险废物处置中心建设项目竣工环境保护验收意见的函</p> <p>甘肃金创绿丰环境技术有限公司: 你公司报送的《甘肃省危险废物处置中心建设项目竣工环境保护验收申请报告》及相关资料收悉。2015年4月20日,我厅组织省环保厅、兰州市环保局、永登县环保局等单位代表对项目进行了竣工环境保护验收。验收结论如下: 一、甘肃省危险废物处置中心项目建设地点位于兰州市永登县树屏镇河口湾,环评要求项目内建内容包括存储量为2.51</p>	 <p>医疗废物经营许可证</p> <p>经营许可证编号:甘平医废证字〔2015〕001号</p> <p>单位名称:平凉市环创医废集中处置有限公司</p> <p>法定代表人:姜泽峰</p> <p>负责人:姜泽峰</p> <p>地址:平凉市崆峒区环境卫生管理处</p> <p>有效期:2015年4月20日至2020年4月19日</p> <p>发证日期:2015年4月20日</p> <p>发证机关:平凉市崆峒区环境卫生管理处</p>	 <p>医疗废物处置方:泾川县畜牧兽医中心(甲方)</p> <p>医疗废物产生方:正宁县社区健康服务中心(乙方)</p> <p>2023年6月20日至2024年7月1日</p> <p>2023年6月20日至2024年7月1日</p>
<p>Fig.4-3-25 Permit for hazardous waste treatment hold by Gansu Jingchuang Lv Feng Environmental Technological Co. Ltd.</p>	<p>Fig.4-3-26 Letter of Gansu EED on environmental acceptance Check after completion of construction the hazardous disposal center project.</p>	<p>Fig.4-3-27 Medical waste business permit hold by Pingliang Municipal Huanchuang Centralized Medical Waste Disposal Co. Ltd.</p>	<p>Fig. 4-3-28 Agreement signed for centralized disposal of medical waste generated by Zhengning County Community Health Service center</p>
<p>4-4 EMS for Grassland Eco-environment Conservation</p>			



Fig. 4-4-1 Grassland vegetation restoration activity in Guazhou County. Left Fig is the introduction of the activity, right Fig is the comparison between before and after the activity



Fig. 4-4-2 Forest & grassland fire prevention and emergency plan disclosed at Sunan County government official website

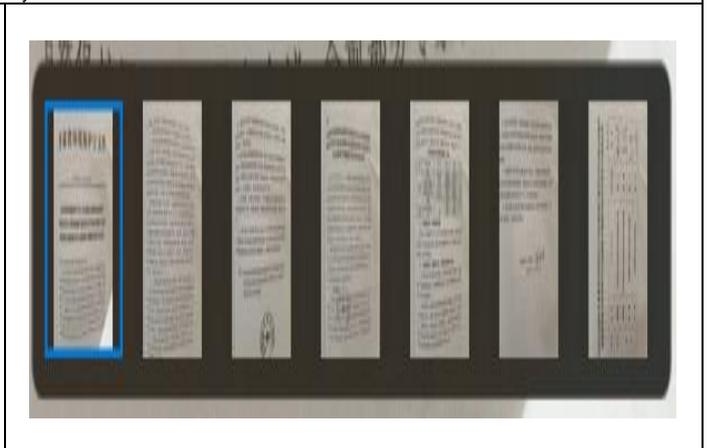


Fig. 4-4-3 Review opinions of the EEB on the special report on the impact of breeding center construction projects on the ecological environment of nature protected areas



Fig. 4-4-4 "Off-site grazing on oasis straw land during winter season



Fig. 4-4-5 Artificial forage cultivation land development and forage cultivation



Fig. 4-4-6 Feed processing and distribution at a quality artificial forage cultivation base



Fig.4-4-7 A standardized livestock farming zone in pastoral area



Fig.4-4-8 Regional distribution of subsidy and reward policies for grassland ecological protection in a county

4-5 EMS for Animal Health, Agro-food Quality and Publics Health and Safety

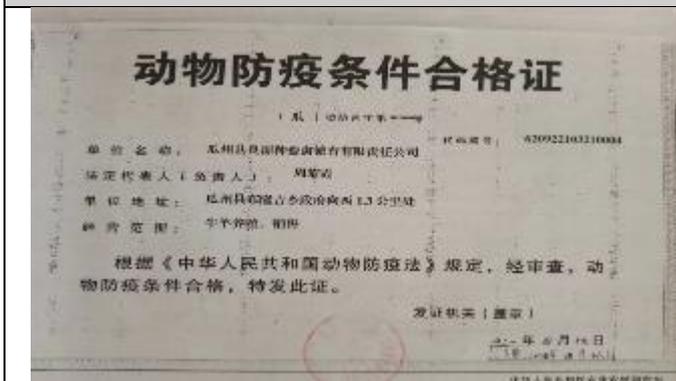


Fig.4-5-1 inspection of livestock farming facility and issuing certificate to facilities meeting animal epidemic prevention conditions



Fig.4-5-2 Flow chart of a county AHVMB in administrative licensing procedures

甘肃省畜牧兽医局《动物防疫条件合格证》人员信息统计表

姓名	性别	年龄	学历	专业	职称	工作单位	备注
...

Fig.4-5-3 Animal quarantine personnel training, assessment and quarantine certificate management

甘肃省动物防疫合格证(A证)

序号	单位名称	地址	经营范围	发证日期	有效期	发证机关
1

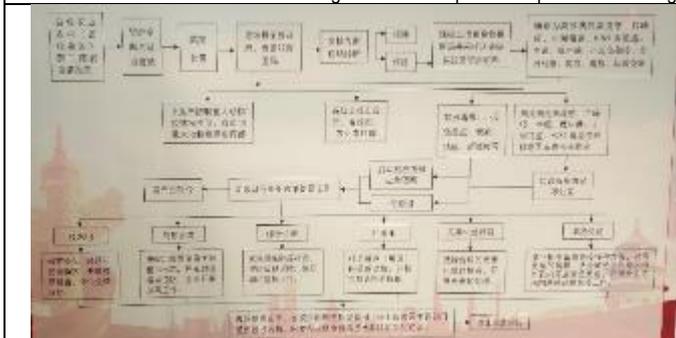


Fig.4-5-4 Flow chart of handling major animal epidemics at county level

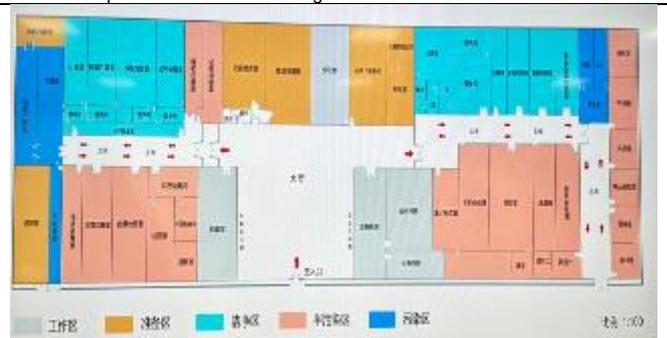


Fig.4-5-5 Layout of a veterinary service and agro-food testing lab at county level



Fig. 4-5-6 SOP of a veterinary service and agro-food testing lab and separately collection of different category of wastes



Fig.4-5-7 Procedures and records of an administrative law enforcement team for supervision and inspection and of animal health and epidemic prevention

Photologs for Chapter 5 Social Management System

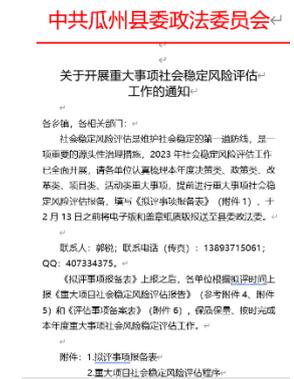


Figure1: Notice of the Guazhou PLAC on Conduct SSRA for Major Matters

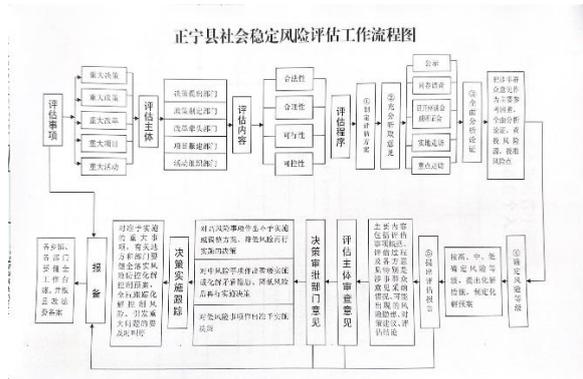


Figure2: SSRA workflow of Zhengning County



Figure3: FALU filing form of the Guziwen Livestock Farm



Figure18: Public announcement of grassland protection subsidies disbursement in Bayin village, Kangle township

Figure16: Reply of the NRB of Lanzhou New District on the site selection of the Gansu Province Rural Revitalization Industrial Park Ecological Livestock Farming Park Project (phase II)

Figure17: Sample of LURT agreement

Figure19: Payment record of LURT leasing fee

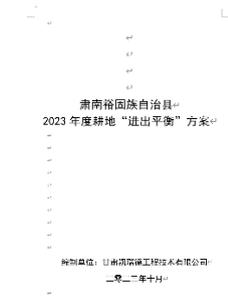


Figure20: The "Annual Cultivated Land In-Out Balance Plan" of Sunan County in 2023

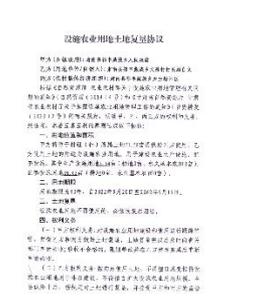


Figure21: Sample of FALU restoration agreement

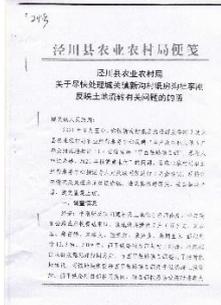


Figure22: Letter of Jingchuan ARAB on handling the issues related to LURT of a land



Figure23: FGD in EM-concentrated village (Songmutan Village, Sunan)



Figure24: FGD in EM-concentrated village (Huiyuan Village, Guazhou)



Figure25: FGD in EM-concentrated village (Dataocan Village, Sunan)



Figure26: Information disclosure and meetings for public comments on the Plan for Construction of a Demonstration Zone for the Common Prosperity of All Ethnic Groups in Sunan County



Figure27: Village meeting of Liuzhuangzi Village in Q1 2023



Figure28: Consultations with Provincial Government Departments



Figure29: Consultations with County-level Government Departments

Appendix 8: Generic E&S Mitigation Measures

The following general environmental and social impact mitigation measures are summarized in this report based on previous experiences in similar project/program management. Specific mitigation measures for each main activities under the PforR Program will be detailed in the specific and standardized subsections on E&M management, with cost estimated and included into the bidding documents and contracts.

Item	Main Activities	Main Impacts	Generic Mitigation Measures	
Pollution prevention and control	Civil works construction	Potential pollution from dust, noise, wastewater, construction waste, spoil, etc.	The bidding documents and construction contract shall include environmental protection clauses; the contractors' construction implementation plan shall incorporate environmental protection measures recommended in the approved EIA & water conservation scheme into their construction design, (such as water sprinkling to reduce dust, reasonable arrangement of operating hours and installation of sound barriers, collection and reuse of construction wastewater, etc.); these clauses and measures are implemented by the construction unit, inspected by the supervision unit, monitored by the employer, and supervised by the EEBs or Housing and Urban & Rural Construction Bureaus (HURCBs)	
	Operation of livestock and poultry farming, manure treatment and utilization facilities	Potential pollution from odor, wastewater, biogas residue, biogas slurry, etc.	Livestock and farms or farming zones shall apply separation of urine from dry feces, biological fermentation and other processes technologies to reduce the volume of wastewater and odor impact; and spray deodorants on livestock sheds and manure treatment facilities. The biogas residue and biogas liquid can be reused as organic fertilizer by in-depth fermentation. The ARABs, EEBs, shall strengthen supervision and provide technical guidance and training	
	Slaughtering and meat processing	Odor, wastewater	Installation of deodorization device, on-sit wastewater treatment stations to ensure effluent compliance with discharge standard. The ARABs, EEBs, shall strengthen supervision and provide technical guidance and training.	
	Veterinary service and agro-food quality & safety testing Labs.	Medical waste, hazardous waste	Wastes generated from such labs are usually medical or hazardous wastes, which shall be collected separately on-site and hand over to the certified agencies for unified collection, transferring and disposal. Contracts shall be signed between the labs and the certified agencies with unified bills for transferring and disposal.	
	Artificial forage cultivation		Soil degradation and environmental pollution from agricultural runoff caused by improper use of fertilizers	Applying test-based formula fertilization, integrated water-nutrient irrigation technologies, substitute chemical fertilizer by organic fertilizer to reduce the use of chemical fertilizer. The ARABs, shall strengthen supervision and provide technical guidance and training.
			environmental pollution, animal health, agro-food safety impact, human health impact caused by improper use of pesticides	Strictly implement the pesticide management mechanism, licensing mechanism for pesticide producers and sellers. IPM are highly encouraged. The use of green prevention and control technologies such as ecological management, healthy cultivation, biological control and physical control shall be promoted to reduce the use of pesticides. The ARABs, shall strengthen supervision and provide technical guidance and training.
Ecological conservation	Grazing on natural grasslands Sites selection	Potential impact on the natural habitats, ecology, biodiversity inside the ERL	Prevent animals' access to surface water bodies using fences, buffer strips or other physical barriers; • Prevent overgrazing of pastureland through use of: Rotational grazing systems based on seasonal and local ecosystem resilience (e.g. riparian zones); Use of livestock trails to reduce soil trampling and gully formation / erosion near streams. Siting the Program activities shall strictly implement ERL mechanism and list of sectoral access in key ecological functional zones mechanism. Activities discharging pollutants or damaging ecological environment that are incompliance with the requirements of the ERL shall be excluded. For activities that cannot be avoided within the ERL, the activities shall be designed to minimize the footprint or maintaining the existing footprint or original facilities and the impacts of the designed activities on ecological of the ERL shall be carried out, technically justified by experts and approved by NRBs, FGBs, EEBs before the construction and subject to regulatory management of NRBs, FGBs, EEB during construction and operation. Measures of ecological protection, biodiversity protection and prevention of the introduction of invasive alien species shall be strictly implemented in	

Item	Main Activities	Main Impacts	Generic Mitigation Measures
			accordance with laws and regulations, design schemes, approval opinions and other requirements.
	Civil works construction	Short-term disturbance to artificial or natural ecosystem, impact on water ecological environment, local soil erosion, etc.	The construction units shall be responsible for requesting the contractors to taking actions to implement those mitigation measures on eco-environmental conservation, the water and soil conservation recommended by EIA document or water and soil conservation scheme. For example, controlling the length of working time in water; Scheduling construction period during dry seasons; In water operations, isolation construction methods (building dikes or diverting water) can be used to keep from disturbing silt; Avoiding important stages in the life cycle of plants and animals (such as migration season, spawning season, etc.); Avoid soil erosion caused by construction in rainy days; Restoring surface vegetation in time after construction, and regularly carry out water protection monitoring, etc.
	Grasslands management and artificial forage cultivation	Destruction of forest, grasslands and wetland resources; Forest and grass pests, forest and grass fires	Strictly abide by relevant national laws and regulations; Implement the forest and grass chief system; Implementation of the grassland grazing ban and grass-livestock balance system through the grassland ecological compensation mechanism; Strictly observe the ERL mechanism for natural protected areas; It is forbidden to destroy forests and grass for land reclamation; Carry out restoration of degraded forests, grasslands and wetlands, improve the coverage of vegetation and biodiversity, and select grass species adaptive to local soil, water, climate and other natural conditions to prevent and control invasive alien species; Implement the responsibility system for forest and grass pests and fire prevention and control; Carry out forest and grasslands resources monitoring, etc.
Health and Safety	Civil works construction	Health and safety risks to construction workers due to excessive force, slips, dust, moving machinery, excavation, and construction in confined spaces	The contractors shall set up a safety management unit and mechanism, and be staffed with full-time safety personnel; Appropriate safety construction measures and safety protection facilities shall be taken at the construction site, and distinct safety warning signs shall be placed at the dangerous parts of the construction site; Construction workers shall be provided with standard PPE and safety trainings and informed of the operation procedures of dangerous positions in writing. Construction supervision firm shall designate full-time safety personnel responsible to safety supervision in accordance with laws, regulations and construction standards, etc.
	Animal health and disease, zoonotic disease prevention and control	Environmental and ecological safety incidents pose risks to the health and safety of farmers, veterinary quarantine personnel, laboratory workers, communities and the public	Control farm animals, equipment, personnel, and wild or domestic animals entering the facility (e.g. quarantine periods for new animals, washing and disinfecting crates, disinfection and coverage of shoes before entry into livestock zones, providing protective clothing to personnel, and closing holes in buildings to keep out wild animals; Sanitize animal sheds or housing areas, Identify and segregate sick animals and develop management procedures for adequate removal and disposal of dead animals); Vehicles that go from farm to farm shall be subject to special precautions such as limiting their operation to special areas with biosecurity measures, spraying of tires and treating parking areas with disinfectants. Voluntarily receive compulsory animal immunization. Operating agencies shall abide by production safety laws, regulations and technical norms to establish a production safety management system, set up full-time safety officers, and formulate safety operation procedures, formulate emergency plan for responding animal epidemic reporting to the EMBs for record, and conduct emergency response program exercises. In veterinary service labs and agro-food quality testing labs, biosafety cabinets shall be installed at the key points of aerosol emission, install fume hoods at key points of volatile organic compound emission. For the use of hazardous chemicals, veterinary labs shall assign particular staff responsible for managing medical waste and other hazardous waste; when working in limited space, distinct safety warning signs shall be placed and workers/operators shall be provided with training and PPE. Operating agencies shall regularly carry out self-inspection of cleaning and disinfection operations, and government departments shall regularly inspect and provide guidance. The villagers, community residents and the general public should be extensively trained or educated on the knowledge of preventive measures for preventing & controlling animal diseases, especially zoonotic diseases.
	Agro-food safety	Hazards to public health	Mechanisms of site certificates, institutional licensing, animal epidemic

Item	Main Activities	Main Impacts	Generic Mitigation Measures
		from residues of veterinary drugs, feed additives and contaminants in animal products	prevention & control certificate before livestock farms or farming zones are put into operation, official veterinarians, etc., shall be strictly implemented. Veterinary drugs and animal food additives are used under the advisory supervision of official veterinarians. Strictly implement the sectoral standards for ensuring the quality and safety of livestock products issued by MARA, and avoid excessive veterinary use and illegal use of animal feed additives. AHVMBs and MSAs shall strengthen the supervision and inspection.
	Livestock manure treatment and resource utilization, sanitary treatment of sick and dead animals	Risks of environmental emergencies, odors, and hazardous chemicals operating in limited space	Ensure that all underground manure storage tanks and lagoons are properly covered and fenced off at a sufficient height; Store liquid manure (e.g. in barn pits, pumping stations, storage tanks, and application tankers) to minimize release of dangerous gases (e.g. hydrogen sulfide); Design pens, gates, and chutes to facilitate movement of livestock and reduce the need for farm workers to enter pens; Instruct staff in correct livestock care, to reduce the incidence of bites and kicks. Enterprises, cooperatives, households engaged in livestock sector, as required, shall improve measures such as the collection and treatment of feces and the sanitary treatment of sick and dead livestock and poultry to eliminate hidden dangers from the source, establish safety production mechanism, and provide on-the-job training for operators, equipped them with necessary PPE, assign full-time safety personnel, formulate safety code of procedures, prepare emergency plans for environmental emergencies report the plan to EMBs for recording, carry out emergency drills, close the main links that produce odor according to the design requirements, obtain licenses for the use of hazardous chemicals and assign personnel to manage them, set up warning signs and harmful substances notification plates in limited spaces. Government departments conduct regular inspections and provide guidance.
	Grasslands management and artificial forage cultivation	Risk of health effects of pesticides, rodenticides and insecticides	Formulate and implement IPM programs, and strengthen the training and guidance of users on the safe use of pesticides; Forest and grassland flight prevention operators have received professional training or obtained professional certificates; operators shall wear necessary protective equipment when applying pesticides (e.g. gloves, protective clothing, goggles, masks, etc.)
Cultural relics protection	Construction of facilities	Cultural relics underground may be excavated	No construction works or operations such as blasting, drilling and digging is allowed within the area of historical and cultural protection site; At the time of site selection for a construction project, location where immovable cultural relics located should try to be avoided; If a construction project is needed to be implemented, it should be approved by the cultural relic authority firstly, and then the urban-rural development and planning authority; Within the protection area or construction restricted area of a protected cultural relic, any facilities that may pollute such relic and its environment are not allowed to construct, and any activities that may affect its safety and environment are not allowed to conduct; Before launching a large-scale infrastructure construction project, the construction unit shall firstly apply to the provincial cultural relic authority for arranging a unit engaged in archaeological excavations to conduct archeological investigation at places where cultural relics may be buried underground within the project area. When the construction unit prepare the budget, they should allocate funds for cultural relics protection as contingency expenses in the project budget. Before the project implementation begins, both the project management unit and the construction unit should provide additional training to their on-site staff to enhance their awareness of cultural relics protection. If cultural relics such as historical sites or tombs are discovered during the construction process, construction activities should be immediately halted to protect the site, and the Yichang Municipal CTB should be contacted to handle the situation.
Labor management	Construction of facilities; O&M of manure treatment facilities, forage	Potential labor disputes, e.g., labor relationship, payment of salary, social security, etc.	The operation units shall sign labor contract or service contract with employees at the time of onboarding according to law, and the terms of working time, location, salary, and payment timely should be included, provide social security insurance for workers, and pay salary timely and fully. The local HRSSBs shall supervise and inspect operation units regularly, and

Item	Main Activities	Main Impacts	Generic Mitigation Measures
	planting and processing facilities, animal and plants inspection and quarantine, grassland protection and monitoring, livestock slaughtering, livestock products processing facilities, etc.	Potential gender discrimination, like refusing to hire women	request to take correction action if any noncompliance identified. Maintenance of GRM to ensure timely receive and resolve related complaints. Implementing gender equality, equal pay for equal work, no restriction on male recruitment is allowed; developing special preferential policies for female employees, like providing free cervical and breast cancer screening and physical examination, listening to female employees' opinions when arranging jobs, not arranging pregnant women to engage in positions with high strength demanding or poor working environment, providing maternity leave and other protection measures and welfares in accordance with the law.
		Potential occupational health and safety risks	Operation units shall identify and test occupational health hazard factors; implement the "three simultaneous" measures, develop, and implement an occupational health and safety training plan for workers; provide necessary personal protective equipment for workers during operation, and organize and carry out regular physical examination, and purchase work-related injury insurance for all employees.
Community impacts	Measures for achieving grass-livestock balance, e.g., rotational grazing, off-site grazing; grazing bans for degraded grasslands	Farmers habits or practice in production and living may be changed	Organizing and carrying out information disclosure and public participation activities to fully consult farmers' opinions. Providing free training and guidance to farmers, including housed farming, precision feeding, straw processing, manure collection and treatment, disease prevention and control, etc.; Setting up GRM to timely receive, resolve and reply to related grievance, appeal, complaints.
	Construction of facilities	Daily life and production of surrounding residents may be impacted due to dust, noise and "three wastes" generated	Conducting FSR, EIS, SSRA, etc. at the preparation stage according to law, including alternative sites selection, social impacts identification, analysis, mitigation, and monitoring plan; carrying out information disclosure and public participation activities to inform people about potential adverse impacts in advance, negotiate and design mitigation measures; and setting up GRM to timely receive, resolve and reply to related grievance, appeal, complaints.
Involuntary resettlement	Construction of facilities	TLU may be involved	Site selection should adhere to the principle of "how much to use, how much to approve, how much to occupy, and how much to restore", and try not to occupy or less occupy farmland; For temporary land that is difficult to restore after use, the occupation of cultivated land must be strictly controlled. If it's indeed needed to occupy permanent basic farmland, it must be able to restore the original planting conditions. Organizing and carrying out information disclosure and public participation activities to fully consult farmers' opinions. Signing land use and compensation agreements, in which terms of land use area, period, and payment time should be listed. Setting up GRM to timely receive, resolve and reply to related grievance, appeal, complaints.
	Forage planting, livestock farming	LURT may be involved	Organizing and carrying out information disclosure and public participation activities to fully consult farmers' opinions following the principles of legal, voluntariness and compensation. Signing LURT agreements, in which terms of land use area, period, rent and payment timeline should be listed. For projects involving the transfer of land use right of the whole village (group) with a large area, a large number of rural households and higher operational risks, risk security funds may be established. Giving priority to affected farmers when there are any employment opportunities. Setting up GRM to timely receive, resolve and reply to related grievance, appeal, complaints.
	Construction of livestock farming zones, livestock and poultry manure treatment and resource utilization facilities,	FALU may be involved	Following the principles of law, voluntariness and compensation; Organizing and carrying out information disclosure and public participation activities to fully consult farmers' opinions; Signing land use and compensation agreements, in which terms of land use area, period, and payment time should be listed; Giving priority to the affected farmers If there is a demand for labor during the construction and operation and maintenance of facilities; Processing the procedures for FALU in a timely manner; Setting up GRM to timely receive, resolve and reply related grievance, appeal, complaints.

Item	Main Activities	Main Impacts	Generic Mitigation Measures
	forage/straw processing facilities, inspection and quarantine facilities, etc.		
Ethnic minorities	All program activities	Some ethnic townships or villages may be impacted	During the preparation and implementation phase of the project, extensive consultation and negotiation should be conducted with representatives of ethnic minorities during the program activities preparation and implementation, and their opinions should be respected and incorporated into the program activities design.
Vulnerable groups	All program activities	Vulnerable groups may be impacted more heavily than others	During the preparation and implementation phase of the project, extensive consultation and negotiation should be conducted with representatives of vulnerable groups during the program activities preparation and implementation, and their opinions should be respected and incorporated into the program activities design. Develop and implement supporting measures for affected vulnerable groups, e.g., giving priority to them in labor use, providing welfare employment opportunities, covering by urban or rural minimum living standard subsidies.

Appendix 9: Records of Focus Group Discussion with EM-concentrated Village Leaders and Villager Representatives

1. Huiyuan Village, Qidun Township of the Hui and Dongxiang People, Guazhou County, Zhangye City, Gansu Province

Date: 21 October 2023

Location: Huiyuan Village, Qidun Township of the Hui and Dongxiang People, Guazhou County, Zhangye City, Gansu Province

Attendees: one representative of the PPMO, one representative of the ARAB of Guazhou County, one representative of the Qidun township government, 3 representatives of the Huiyuan village committee and 10 representatives of villagers (among which, 4 of them were female, all are ethnic minority people)

Records:

The social specialist briefly introduced about the PforR, typical activities, goals of this FGD to all representatives, learnt about the social, economic and cultural conditions, and seek comments and suggestions from representatives on the PforR and its potential E&S impacts.

Basic information about the population of Huiyuan Village: this village consists of 5 villager groups, with a total of 173 households and 1,049 persons. All of them are ethnic minorities, with the Hui and Dongxiang people each accounting for 50%. The villagers are living in a concentrated area. The village has a total labor force of about 310 people, and most of them work in other cities in Gansu Province and outside the province, mainly working on construction sites, electronics factories, etc. There are 142 households and 859 persons who have been lifted out of poverty, 34 persons with disability, 29 households and 103 persons living on the minimum living security, and no households in extremely hardship. According to the representative of the villagers, the Dongxiang people have their own language and characters, and the Hui people basically speak Mandarin, which is a local dialect. The main daily communication language is the local dialect. The customs and culture of the Dongxiang and Hui people are basically the same, such as the Eid al-Adha, Friday prayers, etc. In 2022, the annual net income per capita of the villagers was CNY 12,442 yuan. Among which, 50% was from migrant work, 30% was from agricultural planting, and 20% was from livestock farming. The village has a certain amount of ethnic minority development funds every year, normally used for upgrading and renovating livestock farming facilities, such as pen repairs, etc.

The village has a total of 5,665 mu of cultivated land, with an average cultivated land per capita of about 5 mu; forest land covers about 1000 mu, primarily designated for farmland shelterbelt purposes; the rest are wasteland and unused land, no grassland area. The cultivated land is predominantly planted with corn, alfalfa, and safflower, all of which are cultivated by the households themselves, without any LURT arrangements. Corn and alfalfa are mainly used as forage for their own livestock production.

The village is identified as a specialized livestock production community, currently housing 510 cattle and over 10,000 sheep, all raised in fixed enclosures situated around residential areas. Lambs are normally reproduced by villagers themselves. The forage primarily comes from locally cultivated corn and alfalfa, supplemented by purchases from surrounding townships. The manure of cattle and sheep is usually gathered in spring, left to undergo natural fermentation, and subsequently utilized in fields during spring plowing. The livestock disease control and prevention are mainly managed by village-level veterinary officers, administering compulsory vaccinations in both spring and autumn for free. Cattle and sheep died of diseases are generally handled by villagers themselves by burying them in excavated pits. There is no centralized disposal site for animals died of diseases or waste in surrounding townships. Traders visit the village to purchase cattle and sheep periodically, so villagers don't need to transport animals to designated markets. Additionally, the county and township animal husbandry and veterinary medicine stations offer irregular livestock farming related skill training sessions for farmers.

Village representatives expressed that they had not heard about the PforR. Because there is no grassland in the village, there is no subsidies related to prohibiting grazing, rotation grazing or balance between capacity of grassland and livestock. Villagers traditionally release cattle and sheep into harvested fields for a duration of approximately two weeks in autumn. Testing for Brucellosis primarily falls under the purview of the county

ARAB and the PCPC. In the event of infectious diseases such as Brucellosis in cattle and sheep, centralized intervention is carried out by the township government. There are two livestock farming zones in the village, constructed with funding from the local government, but they are currently underutilized. Representatives interviewed generally support the PforR implementation, recognizing the potential benefits for the village's livestock industry and the enhancement of livestock quality. However, concerns were also raised about the potential increase in costs associated with low-emission livestock production techniques.

Information disclosure and public participation: there is a WeChat group that all villagers have been invited in. Notices and information are usually disseminated to villagers through the WeChat. Village meetings are held for comments when majority of the villagers are affected by any event or project.

GRM: villagers usually contact the village committee first for resolution if they have any questions, suggestions or complaints on an event. Representatives of the village committee and villagers expressed that most of the grievances or complaints can be addressed at the village level.

2. Xinhua Village of Shuangta Township in Guazhou County, Zhangye City, Gansu Province

Date: 21 November 2023

Location: Xinhua Village of Shuangta Township in Guazhou County, Zhangye City, Gansu Province

Attendees: one representative of the PPMO, one representative of the ARAB of Guazhou County, one representative of the Shuangta township government, 1 representatives of the village committee and 7 representatives of villagers (all male and ethnic minority people)

Records:

The social specialist briefly introduced about the PforR, typical activities, goals of this FGD to all representatives, learnt about the social, economic and cultural conditions, and seek comments and suggestions from representatives on the PforR and its potential E&S impacts.

Basic information about the population: the village consists of 5 villager groups, totaling 431 households with 2,561 persons, all are the Hui people. They relocated from Yongjing County in 2003 and reside collectively. The village has about 900 labor forces, among which, 500 of them are working outside as migrant workers in sectors such as construction, catering, factories, and transportation. There are 244 households that have lifted out of the poverty, 44 persons with disabilities, 71 households with 225 persons living on the minimum living subsidies, and one household categorized as in extremely hardship. According to villager representatives, the Hui people in the village primarily communicate in the local dialect of Mandarin. In terms of customs and culture, the key distinctions between the Hui people and the Han manifest in dietary preferences and festivals (such as Eid al-Fitr, Eid al-Adha, and Friday prayers). The main sources of income for villagers are migrant working, supplemented by livestock farming. In 2022, the average annual net income per capita for villagers was about CNY 10,000 yuan. Among which, migrant working accounted for 40%, livestock farming 30%, crops cultivation 20%, and other sources accounted for the remaining 10%. The village did not receive any ethnic minority development funds.

The village has a total cultivated land area of 7,200 mu, with an average cultivated land per capita of approximately 3 mu. Forest land covers about 1,100 mu, while the remaining areas consist of wasteland and unused land. There is no grassland in the village. The cultivated land is primarily used for the cultivation of wheat, corn, Chinese wolfberry, and licorice. Most of the land are cultivated by villagers themselves, while some households with limited labor force lease their land to other households for planting or livestock farming at a rate of about CNY 200 yuan/mu/year. Wheat and corn are mainly used as forage for livestock production.

The village is one of the specialized livestock production communities, currently housing over 500 cattle and more than 8,000 sheep. These animals are housed in fixed enclosures situated around the residential area of households, with an average of several dozen to over a hundred sheep per household. The village has one livestock farming zone, with over 10 households engaging in livestock farming within the designated area. Villagers typically reproduce lambs by themselves, and forage is primarily sourced from locally cultivated crops and purchases from surrounding townships. About 50% of households in the village possess forage processing machinery, while others borrow such equipment from neighbors. The manure of cattle and sheep is usually excavated in spring, left to naturally fermentation, and then utilized in fields during spring plowing. Disease prevention and control for cattle and sheep is overseen by village-level veterinary officers, with

compulsory vaccinations administered in both spring and autumn for free. Animals died of diseases are generally buried by villagers in excavated pits. Traders visit the village to purchase cattle and sheep periodically, so villagers don't need to transport animals to designated markets. The county-level and township-level animal husbandry and veterinary medicine stations offer irregular livestock farming related skill trainings for farmers, including guidance on disease prevention measures.

Village representatives mentioned being previously unaware of the PforR. Given there is no grassland in the village, there is no related grassland subsidies and programs on balance between capacity of grassland and livestock. Regarding the PforR activities, representatives interviewed expressed support, recognizing potential benefits for the village's livestock industry and the enhancement of livestock quality, for example, organic fertilizer processing could contribute to improving the efficiency of manure utilization.

The village has established a WeChat group encompassing all villagers, serving as a platform for daily communication. Typically, village affairs involving villagers are disseminated and opinions are sought through the WeChat group and village meetings. Regarding grievances and complaints, villagers commonly choose to contact the village committee for coordination and resolution. Both village committee and villager representatives conveyed that the most of the grievances can be effectively addressed at the village level.

3. Dacaotan Village of Kangle Township in Sunan Yugur Autonomous County, Zhangye City, Gansu Province

Date: 24 October 2023

Location: Dacaotan Village of Kangle Township in Sunan Yugur Autonomous County, Zhangye City, Gansu Province

Attendees: one representative of the PPMO, one representative of the ARAB of Sunan County, one representative of the ERAB, one representative of the Kangle township government, 1 representatives of the village committee and 13 representatives of villagers (including 5 female)

Records:

The social specialist briefly introduced about the PforR, typical activities, goals of this FGD to all representatives, learnt about the social, economic and cultural conditions, and seek comments and suggestions from representatives on the PforR and its potential E&S impacts.

Basic information about the population: Dacaotan Village is predominantly inhabited by the Yugur ethnic group, with other ethnicities such as Tibetan, Hui, Han, and Mongolian also residing in this village. The village has a total of 108 households with 329 persons, among which, females account for 51% of the population. There are 85 ethnic minority households with 286 persons, accounting for 87% of the total population. The village has a labor force of 268 persons, with the majority engaged in livestock farming activities, and only around 20 persons working outside the village. There are no households just lifted out of the poverty, 14 persons with disabilities, 14 households with 14 persons living on minimum living subsidies, and 3 households categorized as in extremely hardship. According to villager representatives, the Yugur people has its own language but no characters, and they believe in Tibetan Buddhism. The Tibetan and Mongolian ethnic groups have their own languages and characters, while the Tu people doesn't have a distinct language and characters. The Yugur language in the village is similar to the Mongolian language. Despite the diversity, all villagers can speak Mandarin in local dialect. Residents adapt their dwelling patterns based on seasonal grazing demands, with a relatively concentrated settlement during the summer and a more dispersed in winter. Men in the family primarily handle livestock farming activities and other heavy works, while women are chiefly responsible for taking care of the elderly, children, and domestic chores. Additionally, villagers place significant emphasis on education, reflected in the relatively high education level of children in each household that commonly every household has at least one child studied or studying university.

The primary source of income for villagers is livestock farming activities. In 2022, the average annual net income per capita reached CNY 25,000 yuan. Among which, livestock farming accounted for 85%, crops cultivation accounted for 10%, and migrant working accounted for 5%. The village received ethnic minority development funds from the national and provincial levels every year, for example, it was CNY 4.26 million yuan in 2022 and CNY 2.1 million yuan in 2023. These funds were primarily allocated for infrastructure development within the village and the improvement of the livestock industry, including the construction of roads, houses, and enclosures. Each household possesses a small car for transportation and an agricultural

vehicle for livestock farming needs. Additionally, villagers received subsidies for grassland protection (CNY 21.95 yuan per mu per year) and for achieving balance between the capacity of grassland and livestock (CNY 2.59 yuan per mu per year).

The village has a total grassland area of 209,000 mu, with an average grassland area per capita of approximately 900 mu; it has cultivated land of 200 mu, equating to an average per capita cultivated land area of approximately 0.6 mu. The grassland serves as a year-round pasture. A minority of farmers have leased their grassland to other livestock farming households within the village at a rental rate of around CNY 20 yuan per mu per year. Cultivated land is normally used for the cultivation of forage such as corn and oats for self-use.

There are one livestock farming cooperatives and 65 livestock farming households. At the end of 2022, there was an inventory of about 11,000 sheep and 2,600 yaks in the village, averaging 200 sheep per household in the realm of cattle and sheep farming:

- Each household has fixed enclosures in front and behind their residential houses and simple quarters and enclosures on the pasture.
- Grazing practices primarily involve seasonal rotational grazing, with summer rotations occurring from June to August, autumn rotations from September to October, and winter-spring rotations from October to June. During the period from October to next March, some farmers lease agricultural land approximately 80 km away from the village for off-site grazing. The main forage used during this period is corn stalks from the leased land.
- Breeding primarily relies on natural mating, with unified and free breeding services provided by the township animal husbandry and veterinary medicine stations.
- Forage sources include grasslands contracted by households, purchased from the market (such as corn stalks, corn, and alfalfa), and off-site grazing (corn stalks).
- Animal disease prevention and control involve 2-3 rounds of deworming and vaccination conducted by the township animal husbandry and veterinary medicine stations annually. Key diseases include brucellosis and enterotoxemia. According to the survey, villager representatives surveyed rarely wear necessary masks and gloves during lambing, and there had been cases of villagers being infected with brucellosis. Rodent and pest control of grassland is dispensed by medication provided by the township animal husbandry and veterinary medicine stations.
- Manure disposal methods primarily include (i) sheep dung collected by planting households in the agricultural area for fermentation and returning to the fields and (ii) cattle dung used as fuel by farmers themselves.
- Regarding animals died of diseases, there are some designated harmless treatment pits in the village and primarily using deep burial as the disposal method.
- Cattle and sheep sales mainly involve door-to-door purchases by traders.
- The county and township animal husbandry and veterinary medicine stations conduct 2-3 training sessions annually on livestock farming, covering topics such as breeding techniques and disease prevention and control. These sessions are typically organized in spring, summer, and autumn.

The villagers' representatives expressed that they had not heard of this PforR before, but were very supportive of the PforR implementation, believing that it would be beneficial to the development of the village's livestock farming industry, the improvement of farming techniques, and would not have any significant negative impacts. They also expressed their expectations on improvement and maintenance of pasture road, enclosures, and grass-storage sheds, etc. In addition, the villager representatives said that wild animals are now very abundant in the pasture, such as deer, green sheep, dry otters, rabbits, pheasants, camelids, rats, wolves, etc., of which the herbivorous wild animals also have a certain impact on the growth of vegetation in the pasture as well.

In terms of information disclosure and public participation, villagers' representatives said that similar projects had been implemented in their village before, such as grass-livestock balance, grazing ban and grassland ecological restoration, etc., and that they had been notified by way of public announcements and village meetings prior to implementation, and that the feedback from the villagers had basically been adopted. When it comes to complaints and grievances, villagers generally choose to contact the village committee for coordination. Representatives of villagers and village community indicated that most complaints could be resolved at the village level.

In response to the feedback from the villagers' representatives during the FGD, the technical experts of the PforR team provided detailed answers and reminded the representatives of the farmers to further strengthen personal safety protection and take the necessary safety measures, such as wearing gloves and masks, etc., in the process of livestock farming.

4. Songmutan Village of Dahe Township in Sunan Yugur Autonomous County, Zhangye City, Gansu Province

Date: 24 October 2023

Location: Songmutan Village of Dahe Township in Sunan Yugur Autonomous County, Zhangye City, Gansu Province

Attendees: one representative of the PPMO, one representative of the ARAB of Sunan County, one representative of the ERAB, one representative of the Kangle township government, 1 representatives of the village committee and 10 representatives of villagers (including 5 female)

Records:

The social specialist briefly introduced about the PforR, typical activities, goals of this FGD to all representatives, learnt about the social, economic and cultural conditions, and seek comments and suggestions from representatives on the PforR and its potential E&S impacts.

Basic information about the population: Songmutan Village is predominantly inhabited by the Yugur ethnic group, with other ethnicities such as Tibetan, Hui, Tu, and Han also residing in this village. The village has a total of 106 households with 291 persons, among which, females account for 47%. There are 90 ethnic minority households with 240 persons, accounting for 82% of the total population. The village has a labor force of about 100 persons. Among them, those under 30 years old are working outside as migrant workers and the rest are engaging in livestock farming activities. There are no households just lifted out of the poverty, 9 persons with disabilities, 9 households with 19 persons living on minimum living subsidies, and 1 person categorized as in extremely hardship. According to villager representatives, the Yugur people has its own language but no characters, and they believe in Tibetan Buddhism. The Tibetan people has their own language and characters, while the Tu people doesn't have a distinct language and characters. Villager speak their own language and Mandarin in local dialect in daily communication, while children normally speak Mandarin. All villagers are living in the urban area of Sunan County except one household. Men in the family primarily handle livestock farming activities and other heavy works, while women are chiefly responsible for taking care of the elderly, children, and domestic chores.

The income of this village is mainly based on livestock production and ecological tourism. In 2022, the annual net income per capita of villagers was CNY 26,842 yuan. Among which, livestock farming accounted for 80% and migrant working accounted for 20%. This village receives national and provincial ethnic minority development funds and special funds for rural revitalization every year, such as CNY 960,000 yuan in 2022 and CNY 2.72 million yuan in 2023, which were mainly used for infrastructure construction as well as the development of livestock production. In addition, residents of this village also received subsidies for grassland protection (RMB 21.95 yuan/mu/year) and for achieving balance between the capacity of grassland and livestock (CNY 2.59 yuan/mu/year).

The village has a total grassland area of 550,000 mu, of which 280,000 mu are usable grassland, with a per capita grassland area of about 900 mu; the cultivated land area is 42 mu, mainly planted with oats and other forage grasses. The land use right of 32,113 mu collective grassland has been transferred to farmers in the village at a price of about 1,500-10,000 yuan/mu/year according to the size and grass quality, and the LURT fee is paid on a yearly basis.

A total of 56 households in this village are engaged in livestock farming, stocking about 7,550 sheep and 4,787 yaks at the end of 2022, with an average of 300 sheep and 180 yaks per household. In yak and sheep farming:

- Each household has simple quarters and enclosures on the pasture.
- In terms of farming methods, the village implements the grass-livestock balance program and it adopts on captive farming and off-site grazing in winter. The land rent for off-site grazing is about CNY 150-200 RMB/mu, including the fee for caretaker's houses. Farmers need to transport their yaks and sheep to the rented place and build temporary enclosures every year.
- Breeding primarily is conducted by farmers themselves through purchasing yak and sheep for improvement, and local government provide subsidies support at about CNY 3,000 yuan/household.
- Forage sources include grasslands contracted by households, purchased from the market (such as corn stalks, corn, and alfalfa), and off-site grazing (corn stalks).
- Animal disease prevention and control is carried out by the two village-level veterinary officers who are responsible for vaccination, deworming and technical support.

- Manure is treated through gathering and spreading into the pasture in every spring.
- Animals died of diseases are buried deeply by villagers themselves.
- Yaks and sheep sales mainly involve door-to-door purchases by traders.
- The county and township animal husbandry and veterinary medicine stations conduct 2-3 training sessions on livestock farming every year, covering topics such as livestock farming techniques and disease prevention and control. These sessions are usually provided in summer in the form of intensive training on the pasture.
- Some of the farmers involve a small amount of labor during the lambing period in winter and spring, mainly villagers of surrounding villages and communities and relatives, with a labor cost of about CNY 100 RMB/day and a work period of about 2-3 months.

Villager representatives expressed that they had not heard about the PforR before but strong support for its implementation. They believe it will be good for the development of the village's livestock production and promoting advancements in livestock farming techniques without causing significant adverse effects. The village does not currently implement grazing bans. The local government distributes grass seeds to farmers for cultivation every year. Villager representatives highlighted that the overall costs of livestock farming are high. They expressed a desire for increased support in providing high-quality grass seeds, introducing superior breeding stock, and constructing enclosures, etc. Additionally, representatives noted a significant presence of wildlife on the pasture, contributing to substantial vegetation consumption.

In terms of information disclosure and public participation, villager representatives noted that similar projects, such as the grass-livestock balance, have been previously implemented in the village. Prior to implementation, villagers were informed through public announcements and village meetings. Regarding soliciting opinions on other projects, such as the formulation of government development plans, the opinions of village leaders were consulted. Cases of grievances or complaints are generally rare among villagers. In the cases where they occur, villagers typically choose to contact the village committee for coordination and resolution, and these matters are generally resolved at the village level.