SFG2236 V2 REV

World Bank Loan Project

Shaanxi Poor Rural Areas Community Development Project (P153541)

Environmental and Social Management Framework（ESMF）

Foreign Capital Project Management Centre of
Shaanxi Provincial Poverty Alleviation and Development

June 2016

Contents

1. General Principles

1.1 Project Background

Currently, after rapidly economic development for more than three decades in our country, China has entered into the “New Normal” of economic development. The “New Normal” of economic development is overlapped with the poverty alleviation, and thus in this new phase, the background of the poverty alleviation has changed significantly. The poverty issue is the common challenge that faced by the human being, and it is the common objective for the whole human society to eliminate the poverty. For more than thirty years, the poverty alleviation in our country has achieved well-known accomplishments, and more than six hundred million persons have been lifted out of poverty and backwardness, becoming the first country in the world to reduce half of poor population in accordance with the United Nations development goals. However, we also clearly realize that in the Loess Plateau in Western China, the resources of land and water are deficiency, the natural conditions are very harsh and the ecological environment is weak. The rest poor people in the remote and inaccessible mountainous region are dispersed wildly and the basic living condition and rural public service remains backward, so it is urgent to seek an effective approach to solve the rest poor population for the specific poor counties.

Since the mid-1990s, the Chinese government has been cooperated with World Bank to carry out a number of poverty alleviation projects. Depending on the guidance and the help of the World Bank and on the basis of exploring and creating a new poverty alleviation mode and approach, Chinese government provided the most needed help to the poorest poor farmers and the poorest counties by demonstration-utilization-participatory approach, and then improved and enhanced the utilization efficiency of the poverty alleviation fund.

The scope of this project includes Linyou county and Long county in Baoji City; Changwu County in Xianyang City; Fuping County, Baishui County and Heyang County in Weinan City; Dingbian County and Mizhi County in Yulin City; Yichuan County, Yanchang County and Yanchuan County in Yan'an City. There are 5 cities and 11 counties in total, among which it will select 29 mediated poor areas as the project regions.

These project regions, in total, include 29 townships, 221adminstrative villages, 82 poor villages, 683 natural villages, and involve a total of 481117 families, 182254 people and 54553 poor individuals. The first approved 13 communities include 13 counties, 93 administrative villages, 47 poor villages, 321 natural villages in total and involve a total of 22215 families, 84804 people and 22847 poor individuals.

In accordance with the relevant plans, such as “the 12nd five-year Development Plan for the Rural Economic Development in Shaanxi Province”, “Development Plan for the Modern Agricultural Development in Shaanxi Province”

and “Provincial Poverty Alleviation Project”, this project combines with requirement investigation of the poor farmer in the community and thus determines the industrial development project. The primary construction includes four major projects: the livelihood and industrial development project, the economic infrastructure and services project, the capacity-building project and the management, supervision and evaluation project.

The Environmental Safeguards Document for the poor rural region community development project in Shaanxi Province for the World Bank Loan includes three items, there are “Environmental Management Plan" (EMP), "Environmental and Social Management Framework" (ESMF) and "Pest Management Plan" (PMP), respectively. And these three documents are corresponding to different components and scopes in the environmental management project, respectively.

Among these documents, "Environmental Management Plan" (EMP) is one of the files prepared for the World Bank project evaluation. Its application scope is majorly for determining the detailed information (such as type, address and scale) in the phase of the project preparation. According to the draft feasibility study report of the project, it has already determined that the first batch of sub-project activities are located in the 13 project areas within the 11 project counties. According to the World Bank Environmental Assessment Guidelines OP4.01 and the relevant laws and regulations in China, the purpose of EMP aims to make the various parties clarify their responsibilities, such as the project construction units, the construction units, the supervision units and the environmental management departments etc, and then during the period of project implementation and operation, all the environmental protection measures can actually be executed to reduce the adverse impact of the project on environment to the acceptable degree as well as maximize the positive influence of the project on the environment.

The application scope of "Environmental and Social Management Framework" (ESMF) is majorly for the project activities to determine the detailed information during the project implementation period. The project activities to be selected includes the rest 16 project areas within the same 11 project counties, except the 13 project areas covered in the EMP. In accordance with the relevant policies, laws and regulations in China and the World Bank safeguards policies, The ESMF prepares the environmental and social management framework, establishes the principles, regulations, guidelines and procedures for evaluating the impacts on environment and society, and contains the measures to reduce, ease and/or eliminate the adverse impacts and enhance the positive impacts.

"Pest Management Plan" (PMP) ,as a part of the environmental management plan, is majorly for the newly introduced pest control practice due to the newly appeared environment issues caused by the agricultural value chain development activities (primarily farming activity) in this project., In order to improve the quality and safety level of agricultural products, The plan encourages the poor farmers to adopt the environment-friendly farming approach and integrated pest management (IPM) technology through offering technical assistance, training poor farmers, equipment procurement, monitoring and evaluation.

In accordance with the previous lessons and issues of the World Bank on the

poverty alleviation in China, this ESMF analyzes the possible environmental and social impact of each sub-item of the proposed financing, puts forward the corresponding mitigation measures, establishes the framework on environmental and social management and clarifies whether it supports the activity to avoid the location which is not appropriate for the activities and reduce the adverse impact on the environment and society. Meanwhile, this ESMF formulates the rules to meet the safeguards mechanism of the World Bank (including the organizational structure, the evaluation system, the monitoring system and the capacity building etc.).

1.2 Establishment Objective

It should be consistent with the World Bank's safeguards policies to establish the "ESMF", and it applies to all the sub-projects within this project. The goal of ESMF is to guarantee that all the poverty alleviation activity should meet the requirements list below:

- Enhance the positive and sustainable environmental and social outcomes
- Integrate the environment protection and the social content of the sub-project into the decision process
- Minimize the environmental degradation that caused by the individual sub-project or the cumulative effects

1.3 ESMF Components

The ESMF will include:

- Description of the relevant policy framework of the World Bank and of the country and local government
- Summarize the lessons and experiences of previous poverty alleviation project
- Discuss and determine the types of individual sub-project, the possible scale and the influence of the activity
- Identify the environmental and the social impact of individual sub-project, the plan to mitigate those impacts, and the system and schedule of implementing the monitor
- Meet the safeguards mechanism of the World Bank (including the mechanism preparation of the required environmental impact, the environmental management plan, the plan of land acquisition and resettlement or the Ethnic Minority plan)
- The capability of the implementation institution to carry out the activity and the measures of recommended capability-building
- The system of monitoring and reporting, including the review and adjustment regularly in the process of implementation

1.4 Establishment Principle

We recognize that not only it is necessary to implement the poverty alleviation

project, but also that this project is possible to bring adverse impact on the environment and the society, and at the same time, we should have sufficient capability to solve this kind of issues. This project not only complies with the requirement of the country and local government, but also complies with requirement of the relevant operation policies of the World Bank.

This ESMF puts forward several principles shown as below, and these principles are also applicable to all the sub-projects.

(1)This project includes many sub-projects, so the detailed plan of each sub-project could be obtained in the phase of evaluation. In order to ensure the effective implementation of the safeguards policies of the Work Bank, the ESMF will provide instruction and guideline for selecting various types of projects and for implementing the project of the project.

(2) This project is a Category B environmental project. All the sub-projects are not the environmental project of Category A, some sub-projects belong to the Category C project. By design(the project aims to increase income opportunities of targeted beneficiaries in the selected poor rural communities. All the project activities will be on existing agricultural land or construction farmland). the project will only finance small scale civil works, e.g. provision of small scale irrigation pipes, rainwater storage tanks and bore holes for existing fruit gardens, provision of vegetable greenhouses, renovation of existing roads and construction of bridges in rural area, small scale crop storage /processing workshops, household livestock farms, agriculture produce trade markets, and cooperative office buildings. None of these activities would have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. Category A subprojects will not be included in the project. If the recommended sub-project belongs to the environmental project of Category A, it will be rejected.

(3) The overall objective of the proposed action is to guarantee the sustainable development of production in the poor area and improve the living standards of the people. It will take the basic principles of the social safeguards policies of the Work Bank as the guideline and apply the systematic and low-cost mechanism to achieve the objective.

(4) In accordance with the relevant requirements, this project will disclose the information. The relevant investigation must be launched among all the important stakeholders, including the local communities, the environmental group and the national research institution and so on, and especially the women group, minorities group and the other vulnerable groups should be included. It requires clearly recording the opinions of the stakeholders, and the measures that should be took to solve these opinions. The ESMF will be disclosed in the relevant departments, the public place, the website and the World Bank InShop.

(5) Resettlement. The proposed project must try to avoid or minimize the reluctant immigrants.

(6) Indigenous People(IP). If IP involves in this project, in the beginning of the project, the attribute and the scope of the potential impact should be evaluated by the

public, and it should follow the requirement of the “OP 4.10" to design and implement the project.

2. Relevant Legal Framework

2.1 The relevant policies and laws of China

2.1.1 Important policies

Regulation on the implementation of environment impact assessment for construction projects. At the stage of feasibility study of construction projects, environment impact assessment will be conducted to evaluate the pollution and ecological impact of the construction projects and to develop prevention and control measures. The report on environment impact assessment must be approved following the stipulated procedures.

Management regulation of ment must be approved foll All construction projects that have impact on the environment must implement in accordance with laws the regulation that environment protection facilities must be designed, constructed and put into use simultaneously with the principal construction project.

2.1.2 The important policy documents of China

From 2010 to 2015, Communist Party of China Central Committee and the State Council issued five NO.1 documents to instruct China’s agricultural and rural work. The themes are: developing the agricultural and rural base, promoting the poor farmers’ income growth, increasing the agricultural production capability comprehensively, developing modern agriculture and actually enhancing the infrastructure development of agriculture, respectively. These documents are respectively:

2010: "Several opinions on increasing urban and rural development efforts to further consolidate the base of Agriculture and Rural Development ";
2012: “Several opinions on accelerating agricultural technology innovation and continuous improving capability of adequate supplies of agricultural products”;
2013: “Several opinions on accelerating the development of modern agriculture to further enhance the vitality of rural development”
2014: “Several opinions on deepening rural reform and accelerating agricultural modernization”
2015: “Several opinions on enlarging reform efforts and accelerating construction of agricultural modernization”

2.1.3 The relevant laws of Chinese government

“Environmental Protection Law of the People's Republic of China”(January 2015);
“Law of the People’s Republic of China on Environmental Impact Assessment” (September 2003);

“Land Administration Law of the People's Republic of China” (August 2004)

“Law of the People's Republic of China on Prevention and Control of Water Pollution” (revised in February 2008);

“Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution” (revised in April 2000);

“Law of the People's Republic of China on Prevention and Control of Pollution From Environmental Noise” (October 1996);

“Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste” (April 2005);

“Urban and Rural Planning Law of the People’s Republic of China” (January 2008);

“Cultural Relics Protection Law of the People's Republic of China”(October 2002);

“The Law of Land Administration of the People’s Republic of China” (second revised in August 2004);

“Law of the People's Republic of China on Water and Soil Conservation” (revised in March 2011);

“Water Law of the People's Republic of China” (October 2002);

“Flood Control of the People's Republic of China” (January 1998).

2.1.4 The relevant laws and regulations of China

State Council “River Management Regulation of the People's Republic of China” (June, 1988)

State Council “Regulations of the People's Republic of China on Wild Plants Protection” (September,1996, Decree NO.204)

State Council “Regulations on the Administration of Construction Project Environmental Protection”(November, 1998, Decree NO.162)

State Council “Regulations on the Protection of Basic Farmland” (January, 1999, Decree NO.162)

State Council “Regulations on Scenic and Historic Areas” (December, 2006, Decree NO.474)

State Council “Regulation on Land Reclamation” (November, 1988, Decree NO.19)

State Council “Regulation on Urban Drainage and Sewage Treatment” (September, 2013, Decree NO.641)

2.1.5 The relevant laws and regulations of Provincial government

“Environmental Protection Regulation in Shaanxi Province" (July 1999);

“Nature Reserve Management Regulation in Shaanxi Province” (January 2000);

"Trial Measures for Review and Approval of Construction Land Management in Shaanxi Province” (January 2008);

“Implementation Approach of ‘The Law of Land Administration of the PRC’ in Shaanxi Province”(December 2006).

2.1.6 The important documents of Ministry of Environmental Protection

"Catalogue for the Classified Administration of Environmental Impact Assessments for Construction Projects" (Ministry of Environmental Protection, June, 2015)

"Pollution control regulations of drinking water source protection zones "(State Environmental Protection Administration etc., (89) Environment Management NO.21)

"Notice on Enhancing the Management of Noise Pollution in Social Life" (State Environmental Protection Administration, Environment Management [1999] NO.210)

"The Temporary Act of Public Participation in Environmental Impact Assessment" (State Environmental Protection Administration, June, 2006)

"Measures for Pollution Prevention and Control in Livestock and Poultry Breeding" (State Environmental Protection Administration, May, 2001)

2.2 World Bank's operation policies and associated instruction related to project

Table 2.2-1 Applicable World Bank's safeguards policies are shown below

Safeguard Policies	**Triggered?**	**Explanation**
Environmental Assessment OP/BP 4.01	**Yes**	It is confirmed that OP 4.01 (Environmental Assessment) is triggered. The project will bring about positive impacts and benefits on the environment and the targeted communities in the project areas, and have limited adverse impacts. The project will cause short-term construction nuisance associated with the construction/rehabilitation/upgrading of basic infrastructure. During operation, livelihood improvement interventions and infrastructure facilities would generate waste, wastewater, air emission, noise etc. However, these impacts are not expected to be significant given that these investments are of small scale and scattered in eleven counties in the Province. The project is classified as a Category B project due to the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.
Natural Habitats OP/BP 4.04	**No**	The project aims to increase income opportunities of targeted beneficiaries in the selected existing poor rural communities. The project activities include small scale civil works on existing agricultural land or construction farmland. None of these activities would have significant adverse environmental impacts that are

		sensitive, diverse or unprecedented. None of the project influence areas is the land or water areas located in natural habitats as defined by the World Bank policy OP 4.04 on Natural Habitats. As such OP 4.04 is not triggered. Although not anticipated any sub-project screened that triggers OP 4.04 on Natural Habitats is not eligible for financing under the project.
Forests OP/BP 4.36	**No**	The project will not finance activities that would involve any conversion or degradation of critical forest areas or related critical natural habitats as defined under the policy.
Pest Management OP 4.09	**Yes**	The project may finance non-grain agricultural operations which likely lead to the limited use of pesticide or herbicides. This policy is triggered.
Physical Cultural Resources OP/BP 4.11	**No**	The project will not involve significant excavations, demolition, and movement of earth, flooding, or other environmental changes; not be located in, or in the vicinity of, a physical cultural resources sites As such, OP4.11is not triggered. Although not anticipated any sub-project screened that triggers OP 4.11 on Physical Cultural Resources is not eligible for financing under the project.
Indigenous Peoples OP/BP 4.10	**No**	The TT implemented screening on minority people via desk review, site visits and check with provincial minority authority, and did not found there is no minority village/community present in or collectively attached to the project areas. The prepared social assessment of the project also concurred with the TT's conclusion. Therefore the policy is not triggered.
Involuntary Resettlement OP/BP 4.12	**Yes**	The project activities, in relatively small scale and with flexible locations, do not result in any demolition or relocation of structure or facilities. However, the project implementation do entail land use, relying mostly on land transfer and rural land renting market, and and possibly on limited land acquisition. Most of the land will be used for agriculture related activities by villagers themselves within their villages, which does not trigger land acquisition. Only a limited amount of land is permanently to be occupied by enterprises, market facilities, etc., and needs to be acquired, about 36 mu in the first tranche of the project. There is no land donation or land adjustment. The resettlement impact seems minor. On land use in rural cooperatives. Villagers are voluntarily participating in cooperatives, existing or to be established by the project, in various ways: inputting cash or term operational right of land (commercially renting), or just relying on cooperative services of skill training, product processing or trade. The participants will get income from rental of operational right of land, or cash input, and

		could get wages if they work for cooperatives. As specific sites of the construction activities mentioned above and the remaining tranche activities can only be clearly determined during project implementation, a Resettlement Policy Framework (RPF) was developed. A land use and land donation protocol has been developed and included in the Resettlement Policy Framework to provide for the process and criteria for such land transactions.
Safety of Dams OP/BP 4.37	**No**	The irrigation facilities supported by the project include small water storage tanks to store groundwater and rainwater cisterns. The project will not finance construction or rehabilitation of any dams or dependent on any dams as defined under this policy. Thus, this policy is not triggered.
Projects on International Waterways OP/BP 7.50	**No**	The project is not associated with an international waterway.
Projects in Disputed Areas OP/BP 7.60	**No**	The project is not located in disputed areas.

3. The Experiences and Lessons Related to Poverty Alleviation Project of World Bank: Environment and Society Aspect

Since the mid-1990s, in order to implement the seven-year priority poverty alleviation project, Chinese government explore new idea and new approach cooperating with the international institution and taking advantage of the loan from the international financial organizations to solve the poverty issue in large area. Currently, the Chinese government has already cooperated with World Bank in five poverty alleviation projects, the major content of which include: 1) land development project for poor farmers, including farming, aquaculture and fisheries; 2) infrastructure construction project, majorly including simplified rural road, drinking water for people and livestock , electricity and irrigation facilities construction; 3) rural enterprise project, including rural industry, agricultural sale outlet construction; 4) education project, majorly about the rural elementary education and technique training of poor farmers; 5) hygiene project, majorly about the hygiene facilities construction in the rural area and improving the hygiene conditions in the rural region; 6) labor export project to address the labor surplus in the poor region and establishing the export mechanism and training institution; 7) monitoring project, including the poverty monitoring and project implementation monitoring; 8) institution construction project, majorly about the project management institution construction. The sub-projects that are possible to have the environmental and social risk are the land development project for poor farmers, the infrastructure construction project and the rural enterprise project.

These poverty alleviation projects which have been implemented provide valuable experience for this project which is shown below:

1) In many poverty-stricken areas, poverty and environment degradation are closely related. Activities targeted at ecological restoration, alleviation of the pressure on the environment, improvement of basic production and living conditions are designed in the project plan. In the poverty reduction project in Dashishan area of the southwest, the development of economic forest and fruit orchards was arranged in large scale, along with forest nurturing through mountain closure and water conservation, which reduced water and soil erosion. The development of biogas has changed the long customs of harvesting firewood, reducing damage to forest. Large number of domestic water works and micro-sized irrigation works has been constructed in the project areas, which not only is conducive to agricultural production structure adjustment and to the development of animal husbandry, but also has produced positive impacts on agricultural ecology. Infrastructure facility construction in Qingba Mountainous areas, such as land terracing, domestic water works, irrigation works and roads, has improved the production and living conditions of farmers of the project area. Soil improvement and production of paddy rice, maize and wheat has contributed to the increased per capita average availability of grains of farmers. Project activities such as mulberry and silkworm, chestnuts, Ginko and labor

mobility increased farmer's income. Livestock production has also contributed to farmers' income growth and provided more organic manure to agricultural production.

2) At the design stage, attention is given to the selection of environment friendly project components while activities harmful to the environment are dropped. Those agricultural production activities that cause damage to the ecological environment are not selected. Industrial projects that might cause pollution to the surrounding environment are not selected. For instance, the projects of Radix Puerariae powder and fern root noodles are not selected because the harvest of roots would damage soil; paper making, coking and limestone projects in the industrial category are not selected because the pollution to the surrounding environment. Attention is given to biodiversity and the use of landrace resources in agricultural projects, introduction of exotic species is avoided as much as possible. Through crop and animal farming as well as mushroom production (or biogas digester), waste has been fully used to facilitate benign circulation in agriculture.

3) The implementation of the projects has not only contributed to economic development of poverty-stricken areas but also achieved good environment and social benefits. Close attention is given to the construction of basic farmland, planting of trees and grasses, which significantly reduced water and soil erosion, improved the vegetation cover of mountainous areas and the agricultural production environment. Rational use of agricultural resources is highlighted, such as the use of wild plant resources of Zingiberensis, chestnut, vegetable and mushroom production in cool climate, promoting sustainable development of agriculture. Through project implementation, the ecological awareness of farmers has been greatly improved, which is reflected among others the change from logging by farmers to caring for the forest. The implementation of labor mobility project has to certain extent alleviated local population pressure on land.

4) Adverse impact of the project on the environment. There are some rural enterprise activities in the projects of the past; including material and food processing that might produce waste water, exhaust, sludge and noise, constituting certain negative impact on the environment. Prior to the implementation of such activities, environment impact assessment is carried out following the requirement of the government, activities that conflict with the national industrial policies and cause severe pollution are dropped, while effective control measures have been taken for waste water, exhaust, sludge and noise resulted from development activities permitted through environment impact assessment. However, post-evaluation discovered that agricultural projects have the problem of plastic film pollution, whose long term pollution to soil should not be overlooked. Environment management level of rural enterprise projects is not consistently, some are doing better while others are doing poorly.

In short, each of the above projects has significant economic and social benefits and the positive impact on the environment is also outstanding, while no major problems of significant negative impact on the ecological environment are discovered, certain local negative impact has been overcome through project management.

4. Project Objective and Main Components

4.1 Project overview

The rural community development project in the poor region in Shaanxi Province will be started officially in 2017, and the community project will be constructed stage by stage. Since the projects will begin at different time, the construction content will be different also. It is estimated that the rural community development project will last for around 5 years.

The development visions of the project majorly include:

(1) Through supporting project of the industrial development in the rural community, it increases the average income of the poor farmers, especially the poor people and improves their living standards.

(2) Trough supporting the project of the public infrastructure development in the rural community, it can complete the functionality of the rural community public service and make the normal people enjoy the necessary and basic public service universally.

(3) Trough supporting the project of economic cooperation organization development between the rural communities in the poor county, it can explore the new method and new approach to build a modern rural community in the poor region. It can achieve the sustainable development of the project of the community construction through enhancing the capability-building of the poor region and people.

The scope of the project is implemented in the Shaanxi Province, including Linyou county, Long county in the Baoji City; Changwu county in Xianyang City; Fupingcounty, Baishui county and Heyang county in Weinan city; Dingbian county, Mizhi county in Yulin city; Yichuan county, Yanchang county and Yanchuan county in Yan'an city; five cities and 11 counties in total. Among this cities and counties, there are 29 poor agglomerations of modest size being selected as the project regions.

The major construction content in the project includes the construction of production infrastructure and settlement infrastructure. The industrial production infrastructure includes: the improvement of apple orchard (increasing the irrigation facilities, installation of hail nets), the protected agriculture (cultivation greenhouse), feedlots, wells, the agricultural water-saving irrigation facilities, morel planting factory, persimmon manufacture plant, chili manufacture plants, apple sorting plant, the inter-field road, land modification(slope to terrace) project, air conditioning and cold storage base, the cooperative office and agricultural house, and the biogas project and so on. The residential infrastructure includes: overflow bridge, slope protection project (embankment repair), roads, garbage collection bins and garbage transfer vehicle/ station, and rainwater collection pit and so on.

The total investment of the proposed project is RMB 792.74 million Yuan or

$ 127.86 million dollars. The loan application of the World Bank is RMB 620 million Yuan or $ 100 million dollars, taking the 78.21 percent of the total investment. And the domestic supporting capital is RMB 172.73million Yuan, or $ 27.86 million dollars, taking 21.79 percent of the total investment.

4.2 Project features

(1) The project is spread in the 211 administrative villages within 29 townships (towns) 11 counties and 5 cities. The selection of project region follows the principle of contiguous area, the project counties and project villages in each city are typically centralized, so they can be managed easily.

(2) All project counties are the poorest counties in Shaanxi Province, and the poorest communities and households are the target of the project. The project regions are mostly in the remote areas, where the natural conditions are relatively severe and the traffic conditions are poor. Therefore, the socio-economic development in these regions is slow.

(3) The project involves many types of projects and the intensity of development scale is small and scattered. Taking the poor village as the center, the poverty alleviation project is implemented cross-industry and cross-sector. The project includes: industrialization construction (community industrial production infrastructure, industrial base construction and cooperative industry supporting fund), infrastructure construction (public service facilities, residential infrastructure, agricultural production facilities, etc.). The project will explore the pilot mode of capacity-building (management institution capacity, community capacity building, cooperative capacity building, etc.).

(4) The approach of poor farmer participation and community autonomous decision-making is used in the implementation of the small-scale village-level infrastructure projects. In the large-scale pilot of the project region, the mutual fund method is used to promote the income of the households. The project should respect selection will of the people in the poverty alleviation region, and ensure the poor farmers can actually benefit from the funding support of this project, and benefit from the project activities. According to the project activities that put forward by the public through participation planning, the activities are implemented year by year. The proposed project is continuous to adjust in order to avoid the market risk and adapting to the changing of the poor farmer’s will.

(5) The implementation period is up to 5 years. In the meantime, it will also have another project and funds importing into the rural poverty communities to reduce the poverty.

4.3 Project Components

4.3.1 Industrialization sub-project

Industrialization project majorly supports industrial production infrastructure

construction, industrial bases construction and mutual funds in the community. According to the resource advantages and location advantages in the project region, the specific leading industries are developed in the corresponding project region.

1. Industrial production infrastructure

It is mainly for developing the infrastructure of the industrial construction, specifically including: the greenhouses construction for the protected agriculture; water-saving irrigation facilities for orchard supporting construction; hail net and fence; breeding pens construction for supporting the poor farmers to keep sheep and pigs; and the other supporting constructions such as persimmon manufacture plant, chili manufacture plants, apple sorting plant and so on.

2. Industrial bases construction

Specifically, it includes planting base construction and the breeding base construction. The development of breeding industry concentrates in the Dingbian county, Yanchuan county and Yichuan county etc in the northern Shaanxi, and the bred livestock are mainly cattle, sheep and pig. The planting development concentrates in the Linyou county, Baishui county, Heyang county, and Changwu county Yanchuan county, and the plant is majorly apple tree.

4.3.2 Infrastructure sub-project

Infrastructure sub-project is mainly to improve the fundamental public services in the project region and majorly builds the infrastructure in the project region.

1. Public service facilities

Public service facilities are majorly in the construction comprehensive service center in the community (cooperative office), and provide a comprehensive service medium and platform that integrates the four kinds of services: life, culture, industry and government administration, among which the life service has the first priority.

2. Residential infrastructure

It majorly includes: (1) water-supply source project (wells, water wells); (2) supporting irrigation pipe network; (3) community road; (4) waste disposal facilities (garbage collection bins and garbage transfer vehicle / station); (5) rainwater collection pits and so on.

3. Agricultural production facilities

It majorly includes: (1) the inter-field road; (2) land modification (slope to terrace) project; (3) irrigation canal system (pipeline network); (4) overflow bridge ; (5) slope protection project (embankment repair) ;(6) air conditioning and cold storage base; (7) biogas project.

4.3.3 Capacity building sub-project

Capacity-building sub-project aims to completely enhance the learning ability, managing ability, coordinating ability, problem-solving ability of the project management staff to overall improve their comprehensive capability, and eventually transfers the capacity building achievements into project execution, promoting the smooth implementation and operation of the project.

1. Management institution capacity building

(1) It purchases the necessary office and monitoring equipments for the project offices and project stations in the counties and communities, improving the hardware level of the institutions; (2) it trains the management staff and technique staff for the project offices and project stations in the counties and communities in the areas of project procurement, project execution, cash reimbursement and document management etc., improving the professional quality and project management capabilities;(3) it organizes the management staffs in the project offices of the counties to visit the other cities and provinces and to study the implementation experience of the poverty alleviation; (4) it establishes the relevant documents such as “project management approach”, “implementation plan” and so on, convenient for the implementation of the project orderly.

2. Community capacity building

(1) Purchase necessary advocacy, training, equipments and textbooks for the project communities (2) in order to enhance the construction of the communities; organize corresponding investigation and communication for the management staffs of communities.

3. Cooperative capacity-building

(1) Establish the Provincial Cooperative Guidance Center by Provincial Poverty alleviation Office, providing professional instruction for cooperatives of communities; (2) purchase technique materials of relevant industry for the cooperatives of project communities; (3) purchase essential office equipments for the cooperatives of project communities; (4) training the management staff of the cooperatives of project communities in the area of project operation management; (5) organizing various forms of mutual communication and mutual investigation among the management staff of the cooperatives of project communities by Provincial Poverty alleviation Office.

4. Community development research

Study on the three topics, the community planning theory and methods, community participatory approach to poverty alleviation, and the cooperatives and poverty alleviation in poor region to assist the orderly and sustainable development of cooperatives and project communities.

5. Poor farmer’s capacity building

(1) According to each community industrial development direction, it provides the relevant production skill training and agricultural technique training for the poor farmers of each community respectively; (2) According to requirements of various types of work and the current engaged types of work of the migrant workers of the communities, it provides the relevant skill training for the migrant workers of each community selectively and group by group; (3) According to the industrial structure of each community, it provides traditional process training for several poor farmers in the communities selectively; (4) According to each community industrial development direction, it provides and promotes the modern technique to poor farmers of each community respectively, such as promoting the mushroom cultivation technique in the greenhouse in the GanJing community, promoting the morel cultivation techniques in the Changfeng community；(5) it provides computer training to the poor farmers of each community, in order to make the poor farmer understand the new technique of plant cultivation, the sale market of the product and more other agricultural information; (6) it organizes the promotion in the aspects of ecological protection and environmental protection etc. in each project community.

4.3.4 Project management, monitoring and evaluation

Project management, monitoring and evaluation will include the support of general management and implementation of the project, designing and utilizing the comprehensive project management information system (MIS). The sub-project also supports the design of project participatory approach and the participatory approach will cross all the sub-projects, including the participatory planning instruction of the village-level development and the production activities. And this project also provides the village-level coordinator for establishing and operating community development funds, the participatory monitoring and evaluation of the project activities.

The first batch subprojects have been identified and included in the EMP. Those activities to be-identified during implementation are similar to the first batch subprojects.

4.4 Project implementation site

The scope of the implemented project is in the Shaanxi Province, including Linyou county, Long county in the Baoji City; Changwu county in Xianyang City; Fupingcounty, Baishui county and Heyang county in Weinan city; Dingbian county, Mizhi county in Yulin city; Yichuan county, Yanchang county and Yanchuan county in Yan'an city; five cities and 11 counties in total (table 3). The number of administrative villages that implement this project is shown in table 4. All the project activities will be located in existing farmland or construction land.

Table 4 Number of Administrative Units in This Project

Project Province	County-Level city	County	Township (community)	Administrative village
Shaanxi Province	5	11	29	221
	Poor village	village	Total Number of household	Total number of people
	82	683	48117	182254

5. Major Environmental and Social Impact

In the four sub-projects, the third sub-project (capacity-building sub-project) and the fourth sub-project (management and monitoring sub-project) majorly involve project management, monitoring and evaluation, excluding the construction project. Therefore, the first two sub-projects involve the project construction, environmental and social impact, and majorly the impacts are from industrialization and infrastructure construction sub-projects.

5.1The main environmental and social impact of the project

It is benefit to further promote a rapid and coordinated economic development of the poor areas to implement this project, improving the rural infrastructure and public service conditions and enhancing the capability to resist the natural disasters and therefore it has a significant meaning for the sustainable development of the society. The social impacts have been summarized in the EMP (Section 4.1 of EMP). Details are in the stand-alone Social Assessment Report.

Meanwhile, the implementation of the project will also have some adverse impacts on ecology, environmental quality and society.

(1) Ecological impact: it would cause some damage on the soils and vegetation, resulting in the water loss and soil erosion in some earthwork project such as the community roads, water-supply source project and irrigation facilities project and so on. By design, the project activities will include small scale civil works on existing agricultural land or construction farmland which have been heavily influenced by human activities. None of the project influence areas is the land or water areas where (i) the biological communities are formed largely by native plant and animal species, and (ii) human activities has not essentially modified the area's ecological function. None of the project activities would have significant adverse environmental impacts that are sensitive, diverse or unprecedented. The project activities would not harm natural habitats(as defined in OP4.04) significantly, nor might possibly harm natural habitats significantly.

(2) Impact on environmental quality: during the construction of the some projects, such as constructing the community roads, water-supply source project, irrigation facilities, biogas tanks, greenhouse, house building, factory and dormitory projects and comprehensive service centers, it will cause some noise, pollution in the air and water. During the operation processes (say: transportation, irrigation, livestock breeding, farming and planting and other construction), it will produce the sewage, waste gas, noise, solid waste, etc. which will impact on the surrounding environment. The details are in Table 5.2.1

Social Impact assessment indicates that the project has the following major social impacts (refer the stand-alone SA for details).

Positive Social Impact

- Improve the overall level of the regional economy;
- Promote industrial upgrading and help the poverty households to

increase income;

- Perfect the infrastructure and improve the production and living conditions farmers;
- Improve the organizational level of farmers;
- Improve the labor skill and product management ability of farmers;
- Improve the social status and living conditions of disadvantaged groups including women, the old and the disabled.

Negative Social Impact of the Project

- Market Risks of Agriculture Products and Industry Development;
- The Negative Influence on Farmer's Standard of Living;
- The disadvantaged farmer households may face the problem of unfair benefit distribution;
- Insufficient Labor Force in Project Construction.

5.2 Environmental and social impact of the sub-project activities and its mitigation measures

Environmental and social impact of the sub-project activities and its mitigation measures are shown in Table 5.2-1.

Table 4.2-1: Environmental and social impact of the sub-project activities and its mitigation measures

Sub-project activities	period	Environmental impact	Pollution control and prevention measures
Roads Project	construction period	● Common environmental impacts during construction period, see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period, see detail in "Environmental Management Plan" (EMP).
	Operation Period	● The road conditions and pavement situations are improved, which increase the safety and reduce the impact of noise and dust, and then improve the convenience of residents' production and life	● Null
Well(Water Source well) Project	construction period	● Common environmental impacts during construction period , see detail in "Environmental Management Plan" (EMP). ● Tower, drill and other equipments and the mud pools will occupy the farmland and the process of digging well and drilling holes will produce mechanical noise.	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP). ● Well equipments should be checked whether there is an oil or water leakage prior to utilization. If the equipments have an oil

			leakage, it should far away from the drill hole. Before using the equipment, the monitor measure should be adopted. ● Arrange the construction schedule reasonability and avoid multiple high-noise mechanical equipments working at the same time in the same construction field, and when construction, the period of noise impact should be shorten. ● The period of the occupying the land temporarily should be shorten. The time of earthwork should be control to maintain stable digging and filling of the slope.
	operation period	● There are 29 water source wells involving in this project, and they are located in the Liangquan community in the Long county, Shiguan community and Lin Gao community in the Baishui county, Ganjing community in the Heyang county, Yangjing community in the Dingbian county and Longzhen community in Mizhi county respectively. The annual exploitation volume of groundwater is about 6,400m^3/a, accounting for 0.0018% to 0.009% of the available groundwater resources annually, and therefore it has limit impact on the groundwater resource. ● Meanwhile, each community has already received the Groundwater Exploitation Permission from the local Water Conservancy Bureau, in line with the requirement of the local water resources	● The exploitation of well water should strictly follow the rule of permission document, extra exploitation is prohibited

		planning and the relevant policies.	
(overflow bridge)bridge and culvert project	construction period	● Common environmental impacts during construction period, see detail in "Environmental Management Plan" (EMP). ● The leakage of the mud water and the water gushing of the piles and the water gushing may have limited impact the water quality of the specific creeks crossed by the bridge. ● The waste slag (sediment) produced during the process of drilling construction of the bridge may have limited impact the water quality of the specific creeks crossed by the bridge. ● The module and the mechanical oil used in the main bridge construction, if leaking or abandoned directly into the water, will increase the gasoline types of pollutants concentration.	● Common pollution control and prevention measures during construction period, see detail in "Environmental Management Plan" (EMP). ● The mud water produced by the construction of the piles should be reused via the sedimentation tank. Upon the end of the piles construction, the stored mud water in the sedimentation tank is treated by the coagulation sedimentation process and then the supernatant is used by sprinkler in the construction site to reduce the dust. ● The period of the pier construction of bridges and culverts near the shore should selected in the dry season of the water body and use the steel sheet cofferdam to avoid the impact of the water quality of the specific water body. ● The slag of the construction should be discharged into sedimentation tank of the embankment by mud pump, and after treated by sedimentation tank, the supernatant is used by sprinkler in the construction site to reduce the dust. The slag (sediment) should be comprehensively handled by the local Environmental Sanitation Department. ● In the construction field, the management should be enhanced to regulate the construction. Both during the drilling holes operations structurally on the bottom of the bridge

			or during the on-site pouring on the top of the bridge, it is forbidden to abandon the construction materials and the waste oil into the local water body, avoiding the impact on the water quality.
	operation period	● The overflow bridge cross the seasonal or perennial river, in the runtime, could impact the water quality due to the pollutants produced by the passing vehicles, leakage of the mechanic oil and so on.	● Enhance the management of the passing vehicles, optimize the transportation routes and take corresponding measures on the vehicles which transport the dangerous items, the pesticides and flammable and explosive chemicals.
air condition (cold storage)base	constructio n period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The impact of the automobile exhaust on the environment ● A small amount of packaging, fruit and vegetable residue produced by the manual inspection and delivery of cargo from storage, a small amount of cleaning waste produced during the overhaul of the refrigeration units ● The influence of mechanical noise produced by the refrigeration compressor in the cold storage and of the traffic noise produced by the vehicles which transports the vegetables and fruits ●	● The exhaust of the automobile is fugitive emission. The transportation frequency of the automobile is lower and the surrounding barrier is less, with better air mobility, there is no need for the special control and prevention measures. ● The cleaning wastes such as the filter, coolant, refrigeration units should be maintained and repaired by the manufacturer regularly, and the waste generated during this period should be recycled by the manufactures directly. ● The waste package materials should be stockpiled in the designated place, and uniformly purchased by the wastes purchasing station for the other utilization. The fruit and vegetable residue should be uniformly removed

			and dealt by the local Environmental Sanitation Department. ● In the connected place of the compressor, it should be treated by vibration reduction. On top of the chassis, it should be treated by sound isolation with soundproof materials. Meanwhile, sound isolation and afforestion should be implemented on and around the workshop.
morchella (mushroom) production base	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period , see detail in "Environmental Management Plan" (EMP).
	operation period	● The impact of the malodorous gases generated in the process of stockpiling of the medium, on the environmental air ● The solid wastes, such as the waste medium after harvest, the packages of the disinfectants ● The impact of mechanical noise during the operation of the production equipment	● the malodorous gases emissions generated by the stockpiling of medium is fugitive emission and it requires the stockpiling site to use the dry manure as much as possible as well as enhance the ventilation; ● the package bags of the disinfectants should be collected uniformly, and transported to the designated site by the Environmental Sanitation Department. ● The mechanical noise generated by the operation of refrigeration units, disinfectors and humidifiers should be reduced by selecting the low-noise equipments as well as by the measures of sound reduction and vibration reduction. At the same time, sound isolation and afforestion should be implemented on and around the workshop.
chili processing facilities and	construction period	● Common environmental impacts during construction period , see detail in	● Common pollution control and prevention measures during

packaging workshop		"Environmental Management Plan" (EMP).	construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The washing waste water generated during the process of washing the stainless steel containers, mixers, filling machines, heating kettles etc. ● The waste water generated in the process of washing the chili ● The waste water generated in the process of washing the floor of the workshop ● The impact of the mechanical noise generated by the operation of the mixers, filling machines, heating kettles;	● In the chili manufacture plant, the septic tanks and sewage treatment units should be set up to deal with the washing waste water, and after treatment, the water will meet the requirement of the " standards for irrigation water quality " (GB5084-2005) and will be used for irrigation on the surrounding farmland, and could be discharge to the external. ● The soundproof enclosures should be installed in the location of noise source of the equipment and at the same the basic vibration reduction measure should be implemented. At the same time, sound isolation and afforestion should be implemented on and around the workshop. ● The gravel, sand, leaves and other debris should be collected uniformly, and they should be transported with the living garbage to the place designated by the Environmental Sanitation Department for disposal.
persimmon manufacture plant	constructio n period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The waste water of cleaning persimmon ● The vapor of Chlorine dioxide	● After precipitation treatment, the waste water of cleaning persimmon could be used to irrigate the surrounding farmland for comprehensive utilization. ● The vapor of Chlorine dioxide is corrosive, so

			the operators should be noted to be protected, and equipped with suitable protective devices.
apple sorting plant(apple commercialization processing line)	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● Waste water of cleaning apples ● waste packages and other solid wastes	● After precipitation treatment, the waste water of cleaning apple could be used to irrigate the surrounding farmland for comprehensive utilization. ● The waste packages and the other solid wastes can be collected uniformly and then transported to the local wastes purchasing station for comprehensive utilization.
improvement of existing apple orchard and protected agriculture project	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The impact of the pesticides, fertilizer on the air, soil and organism, see detail information in Section 3.2.3; ● The impact of agricultural films and other solid waste on the soil and agricultural production;	● The control and prevention measures for the pesticide, fertilizer pollution, see the detailed information in Section 3.2.3; ● In this project, the storage of the agricultural products did not use the pesticides and chemicals; ● Selecting the agricultural film with high safety, serviceability, economy; ● optimizing the agricultural film covering technique, promoting side film cultivation techniques, discovering the film timely and reducing the number of years of continuous coverage; ● promoting the use of biodegradable agricultural film

			● enhancing the work of recycling agricultural film, increasing the film recycling machinery and increasing the recycling rate of the agricultural film
feedlots project	construction period	● Common environmental impacts during construction period , see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The malodorous gas pollution generated in the piggery, dry septic tanks and biogas slurry storage digesters. ● The dust pollution generated in the feed processing workshop ● biogas fermentation ● the impact on the water environment from the pig urine and flush wastewater of piggery ● the noise impact of pigs' howling and the operating mechanical equipment ● the solid wastes such as the excrement of the pigs, the sludge in the biogas digesters, the sick and death pigs during the breeding, the placenta that produced in the sows house and the medical waste in the veterinary chamber and so on.	● During the transportation of the pigs' feces, the stool should be covered with straws to prevent the spill and the volatilizing of the fecal odor. ● In the feed processing workshop, it should adopt the exhaust fans for ventilation and the dust in the workshop should be cleaned in time. ● The piggery should adopt the dry collection, increase the number of the ventilation, collect and stockpile the manure periodically into the dry septic tank. And the piggery should be cleaned regularly and the urine and feces of the pigs should be clear up, keeping the cleanliness and hygiene of the piggery. ● Increase the digestibility of the pig diet to reduce the excretion of the dry matter (especially protein). It not only reduces the generation of the stinking odor in the intestine, but also reduces the malodorous odor of the feces. This is the effective measure to reduce the source of stench. ● Use low-protein diets balanced by the amino acid and replace the intact

			proteins with the synthetic amino acids in the diets to reduce the nitrogen in the excrement. ● Select the efficient, safe, pollution-free "green" feed additives, such as microbial agents, enzymes and plant extracts and other active substances to reduce the pollutant emissions and generation of the malodorous gases. ● If applicable, use the masking deodorant and oxidizing agent to deodorize the stench of the manure in the dry septic tank. ● The piggery should separate the feces and urine. The pigs' manure should be picked manually, and the pigs' urine and the flushing waste water should be discharged into the sewage treatment system via drains. ● The sewage treatment facilities should be set up, and the biogas slurry after treatment should be transport to the storage tank via pipeline. The volume of the biogas storage tank should not less than 300m^3. ● The accident risk tank should be set up and the volume should not less than 300m3, to accommodate the waste water that generated by the project when the equipment is failed, achieving the zero discharge of the project waste water. ● According to the mode II in the "Technical Specifications for Pollution Treatment Projects of Livestock and Poultry Farms" (HJ497-2009), each tanks in the sewage treatment

			system should be well prepared for anti-seepage. The living waste water and the pigs' urine should be discharged into and process in the biogas digester. ● Use vibration reduction and isolation measures to reduce the high-noise generated by the equipment such as the shredders, crushers and mixers and so on. ● The feed processing workshop in the project should adopt the soundproof doors and windows, and the materials used in the wall of the workshop should be sound-absorbing. During the production, close the doors and windows as much as possible. ● Around the piggery, afforestation should be enhanced to isolate the noise, so the boundary of the factory should be planted with tall trees. ● Two non-hazardous treatment landfills which are concrete construction should be set up to bury the dead pig and the placenta, after each burying, the body should be covered by a slaked lime layer of more than 10cm thickness to ensure that every body and placenta is destroy completely and a well bactericidal effect is achieved. ● In this project, the empty bottle of a variety of disease (bacteria) vaccine and antibiotic drugs, the bags etc. should be stored in the switch storage tank in the isolation room, and if the medical solid waste has reached a certain amount, it should submit into the qualified unit for

			disposal. ● Dry collection is used and after manually clearing the manure, all the manure together is stockpiled into the dry septic tank. According to the aerobic composting in "Technical Specifications for Pollution Treatment Projects of Livestock and Poultry Farms"(HJ497-2009), the manure should be the fertilizer for farmland after treatment. ● The biogas digester sludge and the pigs' manure should be composted together and after fermentation, it could use as organic fertilizer.
Biogas project	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● The impact of malodorous and harmful gas that generated in the process of biogas fermentation ● The impact of the flue and gas that generated by the biogas boiler on the atmospheric environment ● The impact of the waste water generated by the boiler ● The noise impact generated during in the operation of the production equipment (such as paddle mixer, lift pumps, etc.) ● The solid wastes generated in the biogas digester, such as biogas slurry and slag and so on.	● The hygiene and protection distance of the malodorous gas pollution: it should be set at a distance of 100m away from the biogas digester, and during the site selection, within this hygiene and protection distance, there should not be guaranteed that there is no sensitive point, such as residents and so on. ● According to the requirement of "Emission standard of air pollutants for boiler" (GB13271-2014), the boiler flue and gas should be exhausted by the exhaust tube which is more than 8 meters length. ● This project should guarantee that the waste water of the boiler should be discharged into the

			biogas digester, not the external. ● This project should guarantee that the enterprises noise at boundary can meet the level 2 requirement of “Emission standard for industrial enterprises noise at boundary”, by the measures such as installing silencer, damping mats as well as by assisting measures, such as noise reduction through distance and insulation of plant noise. ● The biogas slurry and slag the generated in the biogas digesters can be comprehensively utilized as the fertilizer for the surrounding vegetable greenhouses, orchards and farmlands, and could not be discharged to the external.
Biological compost pit	constructio n period	● Common environmental impacts during construction period , see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● During the process of biological composting, due to the drawback in the aspects of anti-seepage and anti-rainwater, it would affect the environment of surface water and groundwater.	● For the biological composting pit that built by the poor farmers themselves, it should take some measures for anti-seepage such as constructed by brick structure and the bottom sealed by cement , to prevent the compost infiltration to contaminate the groundwater. ● The top of biological composting pit should be configured with roof to prevent the injection of the rainwater overflowing to the surrounding environment contaminating the surface water. ● On top of the biological

			composting pit, anti-mosquito or fly devices should be set.
garbage collection pool	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● Due to the drawback in the aspects of anti-seepage and anti-rainwater in the garbage collection pools, it would affect the environment of surface water and groundwater. ● During the process of transportation and collection of garbage, the garbage might be scattered and cause the impact on the surrounding environment.	● The garbage collection pool should take some measures for anti-seepage such as constructed by brick structure and the bottom sealed by cement , to prevent the garbage leachate contaminate the groundwater ● The garbage collection pool should be configured with roof. After collection, the pool should be covered by the lid, in order to avoid the entering of rainwater, resulting in the leachate leaking to external. ● The garbage should be gathered by the dedicated fully enclosed garbage transfer vehicle to prevent the impact of the scattered garbage during the transfer process on the surrounding environment. ● Garbage collection pool should be cleaned regularly. The garbage, after gathering, should be transferred to the township garbage transfer station regularly, and then transferred to county garbage landfill for disposal.
Trading market	construction period	● Common environmental impacts during construction period ,see detail in "Environmental Management Plan" (EMP).	● Common pollution control and prevention measures during construction period ,see detail in "Environmental Management Plan" (EMP).
	operation period	● automobile and mechanic exhaust;	● Reasonable guide for all kinds of vehicles

		● the malodorous gases generated by poultry, meat markets and garbage collection sites ● impact of traffic noise and operation and life noise ● impact of solid wastes, such as garbage, rotting and waste agricultural products, packaging materials and so on	in-and-out, avoid congestion and reduce the idling driving of the vehicle; and require the vehicles which enters into the project region should turn off immediately in order to reduce exhaust emissions. The road conditions in the project region should be well-maintained, and the pavement should be cleared and washed regularly in order to reduce the dust in the road and prevent or reduce the secondary dust in the road. ● If the trading market is in the form of indoor market, it should be washed every day, and use the combination approach of natural ventilation and mechanical ventilation to exhaust. The air vents should avoid the sensitive sites. The collected all types of wastes in the garbage collection should be collected by sealing bags and prevent the random abandonment. ● In the entrance and exit location and the appropriate location in the trading market, it should set a deceleration zone and speed limit sign and forbid whistle for no reason. When the vehicles enter into the underground parking site, it should control the speed and reduce the intensity of the vehicle noise source. ● Enhance the management of the agricultural product loading and unloading activities to reduce the man-made loading and unloading equipment noise because of improper operation. ● The waste package bags and boxes that produced

			during the logistics and transport period should be collected and piled together, and then sell to the waste recycling station. The waste, rotting and waste agricultural product etc. should be clean by the management department of trading market every day. In the trading market, the trash bin should be reasonable configured and the waste should be categorized and all the garbage should be collected and stored with bags and then the local sanitation department is assigned to remove and process them collectively, ensuring the garbage produced and processed within one day.

6 Environmental and Social Safeguards Mechanism

6.1Environmental management system setting

In accordance with the relevant rules and the requirement of the actual project, this project should designate the dedicated person to coordinate the work of project

environmental management, environmental monitoring and environmental supervision. The environmental management system of Provincial Project Office and all levels of institutions, units in the construction period and operation period is shown in figure 4.1.1 and figure 4.1.2.

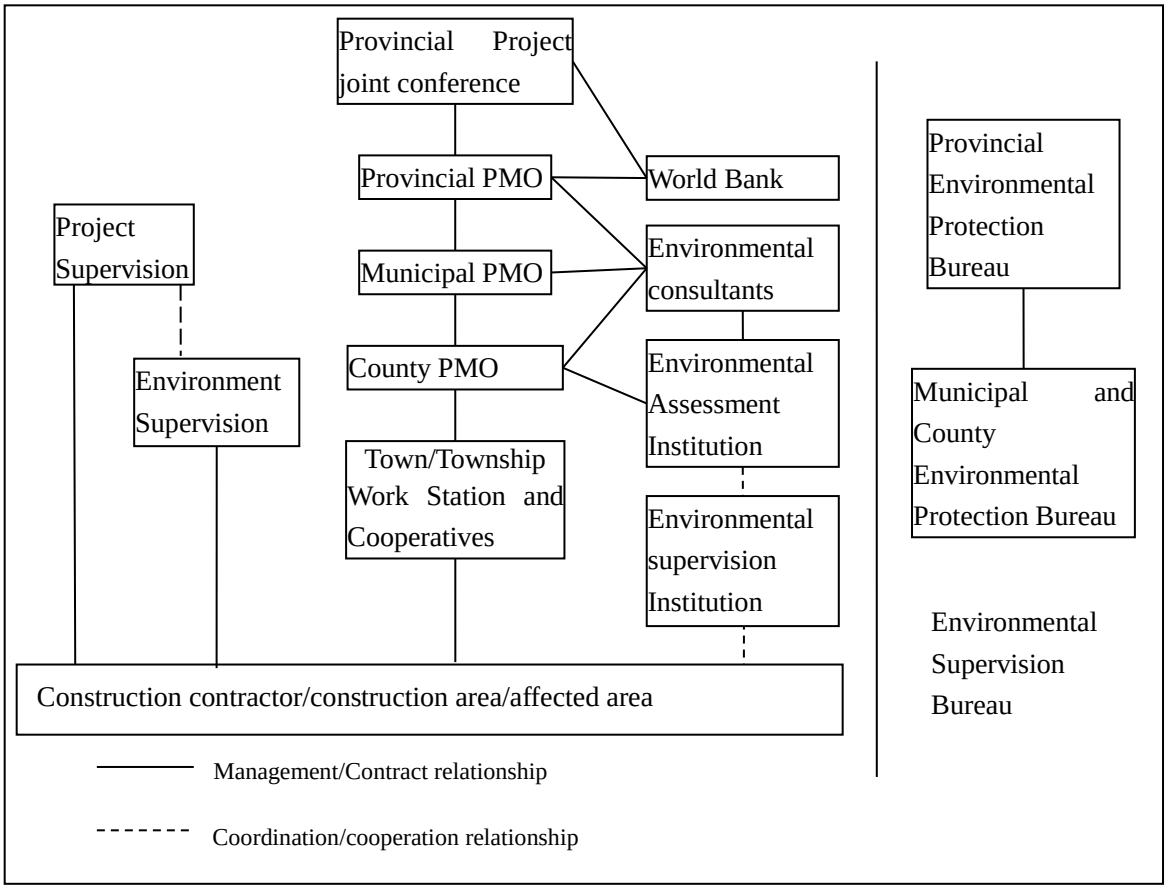

Figure 4.1-1 Environmental Management System in the Construction Period

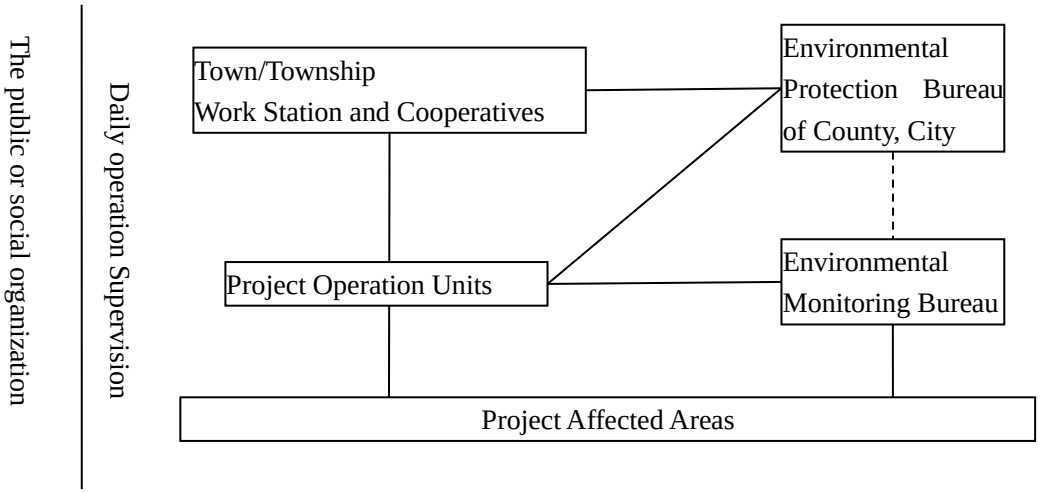

Figure 4.1-2 Environmental Management System in the Operation Period

6.2 The responsibility and personnel of each institution in the EMS

The proposed project is coordinated by Provincial Poverty Alleviation and Development Office (PPADO), which has rich experience with Bank supported projects. A Provincial Steering Committee (PSC), led by a Vice Governor of the Government of Shaanxi with representatives from the PDRC, PDOF, Provincial Department of Construction (PDOC), PPADO and Provincial Statistics Bureau, will be organized to oversee the preparation and implementation of the project. At the provincial level, the PPADO takes the lead in project management. This arrangement helps assure the proper preparation and implementation of safeguard policies. The Shaanxi PPAO has previously executed similar Bank poverty reduction projects, and is therefore experienced in safeguard requirements. At municipal level, a PMO has been established to coordinate project preparation and implementation among participating counties within its jurisdiction and between these counties and relevant municipal government agencies. At county level, each county of the eleven counties has set up a Project Implementation Unit. Four County PIUs have experience with the WB financed projects. But seven of the eleven county level authorities are new to Bank-supported project procedures and will need guidance from the provincial PMOs. Experienced safeguards consultants will be hired to assist with the implementation of safeguards instruments.

In the environmental management system of this project, some are the internal organizations in this project, some are employed consulting service organizations by the project, and others are the external organizations. These organizations constitute a complete environmental management system, but individual organization is in charge of different work components, having different responsibility scopes. In various phases, the constituted organizations, the environmental management content and the personnel of the environmental management system are shown in Table 5.2-1.

Table 5.2-1: A list of environmental management organizations, components and personnel configuration in various phases of the project

Phase	Organization Name	Major Content of Environmental Management	Personnel Configuration
Design and Preparation	World Bank	Supervise and check the implementation of environmental management plan	unlimited
	Environmental Protection Bureau of County, City or Province	The Government Administrative Supervision and Administration Institution, according to the law, supervise and manage the environment during the entire process of this project, including: approval of project environmental impact assessment report, construction of the project, the final acceptance of construction of the environmental protection project, and the environmental supervision and management during the operation phase.	unlimited
	Provincial	Be responsible for communicating with	2

	Project Management Office	government environmental authorities at all levels and coordinating the implementation of the environmental management issues	
	Municipal Project Management Office	The implementation and management of municipal subprojects, including: the management of the engineering environment, environmental monitoring and supervision, supervising, inspecting and reporting the implementation of environmental management plan.	One person per city
	County Project Management Office (CPMO)	1.Responsible for a series of environmental protection management work during the phases of project design and preparation 2. Implementation of the environmental protection funding 3. Responsible for communicating with government environmental authorities and coordinating the implementation of the environmental management issues. 4. Hiring the supervision units to collect the records.	Two person per county
	Design Unit	1. Taking environmental protection measures into the consideration in the design scheme and budget 2. Writing the mitigation measures in the EMP into the technical specifications of biding document.	2
	EIA Unit	1. Providing technical support for the environmental protection in engineering design 2. Formulating the environmental impact assessment document 3. Establishing the environmental management plan	6
Construction period	Town/Township (Community) Work Station	1. responsible for a series of environmental management during the project construction period, implementing the environmental protection funding 2. managing and supervising the environmental management during the construction period and investigating and solving the nuisance or pollution problem occurring in the construction period 3. responsible for coordinating with government environmental authorities to implement the environmental management issues 4. tracking the implementation of the environmental management plan, and regularly reporting to the authorities at	2 persons per county or township(community)

		the same level, provincial PMO, county PMO, and the World Bank; 5. Accept and deal with public complaints.	
	Contractor	1. Implementing the environmental protection measures and work in the construction period according to the bidding documents, contract and this environmental management plan. 2. Accepting the guidance and supervision from the county PMO, management staff of community service center, environmental supervision engineer and relevant government functional department; 3. Accepting the technical assistance from the environmental protection consultation agencies 4.Adopting safety measures, such as set up alert flag in the construction site, enclosure the boundary of the construction site; and establishing channels of communication with the public to ensure construction safety; 5. Performing environmental management plan	Two persons per project
	Engineering / Environmental Supervision	1. supervising the contractor to perform the environmental protection plan and to implement the environmental mitigation measures writing in the contract 2. carrying out the on-site supervision on implementation situation of the contractor 3.assisting with the construction unit for environmental management; 4.recording and generating report of the implementation of an environmental management plan and reporting it to the operation units regularly.	5
	Environmental Monitoring Unit	According to the commission of the operation units and the environmental monitoring plan proposed in this evaluation, completing the monitoring work.	5
	Environmental Protection Bureau of County or City	1. Supervising and reviewing the environmental protection measures of the operation units and the construction units 2. Receiving the report of the implementation of the environmental management plan submitted by the operation units and PMO, and according to the report, carrying out the administrative management. 3. If there is abnormal environmental conditions in the construction process,	1

		arranging the emergency measures; 4. Accepting the public complaints and coordinating to solve it.	
	Technical Assistance / Consultation	1. According to the commission of the operation units in the project, this environmental impact report and the environmental design achievements, supplying the technique support to the environmental protection work during the construction period of this project. 2. Supplying the contractors with technical guidance of environmental protection, and well completing the environmental protection training during construction period of this project.	unlimited
Operation Period	Cooperative and Operation Unit	1. responsible for environmental protection management during operation period and implementing the mitigation measures and monitoring in the environmental management plan during the operation period. 3. the emergency treatment of environmental accident 4. Training the staffs regularly and improving their capability; and meanwhile, proactively carrying out the communication activities for environmental protection technology and experience and further improving the environmental management work.	2
	Environmental Monitoring Unit	1. Carrying out the final acceptance of environmental protection project 2. Managing and supervising the environmental protection compliance during the operation period 3. Supervising and inspecting the operation situation of the built environmental protection facilities.	Depending on the commission
	Environmental Protection Bureau of City or County	1. Carrying out the final acceptance of environmental protection project 2. Managing and supervising the environmental protection compliance during the operation period 3. Supervising and inspecting the operation situation of the built environmental protection facilities.	2
	The public and social organizations	Social supervision	unlimited

7 .Implementation Procedures

In accordance with World Bank safeguards policy, the ESMF will guide the environment and social safeguard planning and compliance during implementation of sub-projects. As sub-projects will be identified and proposed for financing in a continuous manner during the project implementation period, screening for potential environmental and social impacts will be conducted and mitigation and management measures will be developed in line with the agreed ESMF.

Environmental and social impact screening, mitigation and management measures development and implementation will follow these steps:

Step 1: Identification of sub-projects and conduct due diligence investigation on existing enterprises according to the selection criteria.
Step 2: Screening for Potential Environmental and Social Safeguard Impacts and Determination of Safeguard Documents in Accordance with Policies of World Bank and Chinese Laws and Regulations
Step 3: Review of the Safeguards Screening by the World Bank
Step 4: Preparation of Safeguards Documents Including Consultation and Disclosure
Step 5: Review and clearance of the safeguards documents by the World Bank
Step 6: Implementation of agreed actions and supervision, monitoring and evaluation

Step 1: Determine the sub-project and conduct due diligence investigation on existing enterprises according to the selection criteria.

According to the project framework requirement in the Operations Manual Agreement, the subproject should (1) analyze the scheme reasonability and effectively, taking into the consideration of the technique, finance, society, environment and security; (2) determine the scale and implementation phase by phase, according to the current requirement and reasonable prediction.

In the step one, the environmental and social experts / consultants of each PMO will participate in the identification and selection of the sub-project. They will evaluate the sub-project and work to optimize the concept of sub-project to reduce the environmental and social impacts.

Considering that the project may support existing enterprise, in selecting these enterprises, it should carry out due diligence investigation on the current and past situation of these enterprises. The Provincial PMO is in charge of providing the due diligence investigation for the enterprises that will be potentially supported by the finance. The content of due diligence investigation should include:

(1)Sub project activities should not be supported in the list of enterprises;
(2) A list of enterprises that violating the international treaties (specifically see annex III);
(3) The operation permission and the approval materials on environment and so on. The Provincial PMO is in charge of receiving the following materials from the enterprises to determine whether the enterprises satisfy the laws and regulations of the country. The PMO is forbidden to support the enterprises which violate the laws and regulations of the country. PMO is responsible for save the relevant materials. It

can refer to the following format:

Situation of Enterprise Approval/Permission/License

Document Name	Approval Institution	Approval/Update Time		Are related documents collected?
		Approval	Update	
Enterprise Operation(Permission, etc.)				
Environmental Assessment				
Boiler / furnace emissions				
Water supply				
waste water discharge				
Solid waste disposal (general, dangerous)				
Storage and use of hazardous materials (paints, solvents, fuels and other combustible materials, etc.)				
Prevention of fire				
Health and safety of the Workers				
Child labor				

(4) The review of the environmental and social management of the enterprises

(5) Whether there are left environmental and social issues? How can these issues be solved?

(6) Whether the local residents complain the enterprises on the aspects of environment and society?

(7) Whether the media or social organization put forward the complaints on operation situation of the environmental and social management of the enterprises?

On the basis of the abovementioned situation, Provincial PMO must determine whether the enterprises will cause significant risk on the environment and society, and identify which kind of risks. Which kind of measures the enterprises should adopt to reduce the risk to an acceptable level?

Step 2: Screening for Potential Environmental and Social Safeguard Impacts and Determination of Safeguard Documents in Accordance with Policies of World Bank and Chinese Laws and Regulations

Once sub-projects have been identified, the PMOs will screen each sub-project for potential environmental and social safeguard impacts to determine the nature and extent of the environmental and social due diligence needed before government and Bank approval of each sub-project. The choice of instruments (EA, EMP, RAP, etc.) for each sub-project depends on the nature and magnitude of its potential impacts.

Because the evaluation of the expected environmental and social impacts requires specialized technical skills, PMOs will employ qualified environmental and social specialists as well as consultants to assist them in this task.

The PMOs and their environmental and social safeguard specialists will concurrently screen each sub-project to determine the applicable Chinese national laws and regulations, World Bank safeguards policies and the corresponding safeguard instruments (EIA, EMP, RAP etc.) which need to be prepared and implemented. Annex 3 provides guidance for an initial screening to determine the above. Annex 3 will be further elaborated with more specific guidance in the OM.

The results of the screening exercise will determine the categorization and the type of safeguards documents that will be required for each sub-project.

Environmental safeguards screening

With respect to environmental screening of sub-projects, the national regulations and World Bank policies are considered on the whole to be closely-related; both are impact-based and will require the PMO to identify and assess potential impacts to environmental components such as water, air, land and natural habitats and biodiversity.

For specific screening according to World Bank policies, the PMO will use the screening tool in Annex 3 to propose an environmental classification for the each sub-project as follows:

- ***Category A:*** A sub-project of this type would have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the physical works. Some proposed construction of urban infrastructure may be classified as Category A, such as a large-scale landfill, large scale wastewater treatment plants or a water supply dam and reservoir. The project aims to increase income opportunities of local farmers in selected poor rural communities. By design, the project will only finance small scale civil works, e.g. provision of small scale irrigation pipes, rainwater storage tanks and bore holes for existing fruit gardens, provision of vegetable greenhouses, renovation of existing roads and construction of bridges in rural area, small scale crop storage /processing workshops, household livestock farms, agriculture produce trade markets, and cooperative office buildings. None of these activities would have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. Category A subprojects will not be included in the project.

- ***Category B:*** A proposed sub-project may have some adverse environmental impacts, but less adverse than those of Category A projects. These impacts are typically site-specific; few if any of them are irreversible; and in most cases mitigation measures can be readily designed. The majority of

sub-projects are likely to fall in this category.

- ***Category C***: A proposed sub-project is likely to have minimal or no adverse environmental impacts.

The screening results will be cross-checked with national regulations, in order to determine the applicable Chinese domestic EA documentation requirements. Three possible instruments are specified in the Chinese regulations: (a) Environmental impact assessment report (EIA); (b) Simplified environmental assessment (Simplified EA); and, (c) Environmental registration. In those cases where the EA documentation required by the Chinese regulations are not equivalent in depth and scope to those required by the World Bank safeguards policy requirements, the latter will apply.

Determine the environmental safeguards documents of each sub-project

The environmental safeguards documentation requirements for each sub-project will be determined based on the screening procedures, as follows:

- ***Category A:*** This project does not include the sub-project of Category A.

- ***Category B:*** Sub-projects will require an EIA or simplified EIA (as required under the Chinese laws and regulations) and or an EMP (as per the Bank policy) consisting, at a minimum, of standard environmental codes of practices supplemented, if necessary, with additional analysis. The sub-project specific EMP and or standard environmental codes of practices, including chance-finds of physical cultural resources, will be included in all construction contracts/bidding documents.

- ***Category C:*** Sub-projects that are rated Category C do not require environmental safeguards documents, but will comply with the Chinese regulatory requirement for registration.

Social safeguards screening

Every sub-project will be screened by the PMO for social impacts, including: (a) the need, if any, for land acquisition and involuntary resettlement (permanent or temporary); (b) the population to be affected; and, (c) whether there is an ethnic minority community that would be affected by the sub-project (as determined through a review the demographic information in the sub-project areas). The PMO will use the screening tool in Annex 1 to determine the significance of these impacts and identify the Social Safeguards documents that need to be prepared.

In addition to any requirements to meet World Bank policies, the PMOs will also screen the sub-projects for national/provincial laws and regulations regarding land acquisition and involuntary resettlement.

Social safeguards documents

The Social Safeguards documents for each sub-project depend on the sub-project's impacts, as follows:

- A Resettlement Action Plan (RAP) if over 200 people will need to be involuntarily resettled. If fewer people need to be resettled, then an abbreviated RAP will be required, including if land acquisition or compensation for land already acquired under post-earthquake regulations is required.

- A Social Assessment (SA) if social impacts of significance are expected or there are affected ethnic minorities in the sub-project area.

- An Ethnic Minority Community Plan (EMCP) if an ethnic minority community would be affected by the sub-project.

Step 3: **Review of the Safeguards Screening by the World Bank**

The PMO will prepare a safeguards screening summary for each sub-project in a format specified in the Operations Manual. This will summarize: (a) the recommended categorization according to World Bank policies; and, (b) the proposed environment and social safeguards documentation requirements for the sub-project. The safeguards screening summary will be part of the sub-project identification package that will be submitted to the Bank by the PMO.

The Bank will review and confirm the safeguards screening of all sub-projects based on the information provided by the PMOs in the screening summary. Review of the screening of Category A and some complex B projects that require RAPs and/or EMCPs may require site visitation or additional review by the Bank. Reviews of the screening of other Category B and C projects will be conducted by the Bank on a selective basis to verify that the screening tools and choice of documents are being applied appropriately and consistently.

Step 4: Preparation of Safeguards Documents Including Consultation and Disclosure

Once the screening and documentation requirements are agreed by the World Bank and confirmed by the government, the project proponents, with assistance from the PMOs, will develop detailed safeguard documents and impact mitigation measures.

Before the completion of the safeguards documents, it should be consulted and published in an understandable form and language on time in the place where the key stakeholders can contact with each other. It should pay special concern in order to ensure the potential affected people can obtain the draft easily and have enough time to read before the consultation.

Regards to the projects that require the Resettlement Action Plan, Social Evaluation or Ethnic Minority Communities Plan, consultations will be carried out

before the project preparation phase for at least two times: one is at the time of beginning preparing the environmental and social issues documents to determine the scope of environmental and social issues, and the other is before finalizing the drafts, which is on the basis of the primary result of the safeguards document and taking into consideration of the attention of the public.

Information disclosure and consultation

Information disclosure and public consultation are important and necessary in sub-project preparation and implementation. These enable sub-project affected people and other stakeholders to participate in and contribute to the sub-project planning and implementation, and thereby help minimize sub-project adverse impacts and maximize sub-project benefits. The level of public consultation and the scope of information dissemination will be commensurate with the environmental category of the sub-project and the significance of the social impacts.

Information to be disclosed will include, at a minimum: sub-project design, impacts, and proposed mitigation measures. During the design and implementation phases, this information will be updated and continually made available to stakeholders. Disclosure means could vary, but may include posters, booklets, newspapers, the internet, and community meetings. All safeguard documents will be disclosed at a public place accessible to affected groups and other stakeholders prior to consultation to establish the basis for meaningful consultation. Disclosure and consultation mechanisms will be planned and detailed in the relevant safeguard documents.

Grievance redress

A grievance redress mechanism for the project is necessary for addressing legitimate concerns of affected individuals and groups who may consider themselves deprived of appropriate treatment under the project. The mechanism would include (i) a recording and reporting system, including grievances filed both verbally and in writing, (ii) designated staff with responsibility at various levels of governments, and (iii) a time frame to address the filed grievances. This mechanism will be detailed in the sub-project safeguards documents. The functioning of the grievance redress mechanism will be regularly monitored and evaluated by the PMO during project implementation.

Step 5: Review and clearance of the safeguards documents by the World Bank

Review and clearance of the environmental and social safeguards documents according to national regulations is the responsibility of the PMOs. The requirements for review and clearance of the environmental documents by the World Bank are as follows:

- ***Category A***: this project does not include the sub-project of Category A.

- ***Category B:*** The Simplified EA (or EIA) and EMP for Category B sub-projects will not be subject to World Bank review and clearance prior to approval of the sub-project. However, these documents will be post-reviewed on a selective basis during supervision missions.

- ***Category C***: No review required by the World Bank.

The requirements for review and clearance of the social documents by the World Bank are as follows:

- All RAPs, abbreviated RAPs, SAs and EMCPs will be subject to review and clearance by the World Bank prior to approval of the sub-project.

Step 6: Implementation of agreed actions and supervision, monitoring and evaluation

Implementation

Implementation of the safeguards measures during sub-project implementation is the responsibility of the sub-project proponents.

Supervision

The PMOs will supervise the implementation of the EMP and social safeguard-related actions approved by the government and the Bank. The World Bank task team will regularly visit the sub-project areas throughout project implementation in order to:

- Provide guidance and assist in the preparation of safeguards instruments;

- Review the screening results, due diligence review report, and safeguard documents of proposed sub-projects;

- Supervise the implementation of the safeguards instruments to ensure they are implemented in compliance with the Bank policy requirements.

Monitoring and Evaluation

The PMOs will engage qualified and experienced consultants to carry out the monitoring program to provide information on key environmental and social aspects of the sub-projects and the effectiveness of the planned mitigation measures. This will enable the government and the World Bank to evaluate the performance of the environmental program and allow corrective action to be taken when needed. In case of sub-projects with RAPs, the PMOs will hire an independent third party consultant acceptable to the Bank to conduct external monitoring of RAP implementation. The external monitoring report will be submitted to the Bank and

the PMOs.

8 Environmental Management Training

1. The training purpose

The environmental management training aims to guarantee that the environmental management can be carried out smoothly and effectively, make the relevant staff familiar with the content and procedure of the environmental management and improve the environmental management capabilities of the environmental management staff, to ensure effective implementation of the environmental protection measures.

2. The training objective

The training objects: the crew of Environmental Management Office; the crew of environmental supervision; the representatives of environmental monitoring agency; the representatives of Project Management Office; the representatives of the township work stations; the coordinators in the cooperatives; the representatives of the main contractor; the representatives of poor farmers

3. The training content

(1) Master and utilize the environmental policies of World Bank, the domestic environmental laws and regulations and environmental standards.

(2) The environmental management mode of the World Bank loaned project and the environmental provisions in the loan agreement.

(3) The environmental impact assessment report and environmental management plan of this project.

(4) The regulations of the environmental management in the project (focus on the regulations of the environmental management during the construction period)

(5) The responsibilities of environmental management personnel, environmental supervisors, environmental monitoring personnel, contractors and their relationship with each other

(6) The compiling of the environmental management reports, environmental supervision reports, environmental monitoring reports, monthly reports of contractors.

(7) The control and prevention measures after the implementation of the projects, such as the Pest Management Plan, recycling of agricultural films and utilization of fertilizer and so on.

4. The training cost

The environmental management training costs include: the transportation, subsidies, accommodation, food of the training experts, the training materials, conference rooms and so on, the training costs is estimated to be RMB200,000.

9 Funding Arrangement

In the project management, monitoring and evaluation, a specific fee should be arranged as the expenditure of the project environmental and social safeguard system for the implementation of the environmental and social safeguard plan. This part of cost consists of three parts:

(1) The cost of contractors' implementation of "Regulations of Environmental Management in Construction" and of every environmental protection measure in the construction.

(2) The cost of the environmental protection project (measures) in operation period of each sub-project.

(3) The cost of environmental management, including: environmental monitoring, environmental management training and environmental consulting and so on.

Among these costs, the cost of contractors' implementation of "Regulations of Environmental Management in Construction" and of every environmental protection measure in the construction has already been included in the overall quotation of the contractor's project, the specific cost in this part will not list again in the plan.

Table 6.1-1 Environmental and social safeguard system cost estimates

Index	Project	Cost Unit: 10 thousand (RMB)
1	Environmental Monitoring	356.9
2	Environmental Management Training	44.6
3	Environmental Protection Project (measures)	329.7
4	Environmental Consulting	66.9
5	Environmental Management Agency Facilities / Daily Environmental Management	44.6
Total	--	842.7

Note: the cost of contractors' implementation of "Regulations of Environmental Management in Construction" and of every environmental protection measure in the construction has already been included in the overall quotation of the contractor's project, the specific cost in this part will not list again in the plan.

10 Grievance Redress Mechanism

Since the affected population has been participated in the project activities since the outset, it is expected that the affected population will not have different opinions or appeal against some major issues, such as the environmental impact and the resettlement and so on. Nevertheless, in order to ensure the interests of affected population, it should guarantee the appeal channels. It is the purpose of establishment of the appeal procedure that the affected people can receive responds and avoid the complex and comprehensive formal channel to solve the complaints as much as possible. In the “Operation Manual of Community Leading Development Project” (chapter six) and the “Resettlement Policy Framework” (chapter ten) both of which formulated by the project stipulates the appeal procedures, respectively. (see the manual for the details)

The appeal procedures are as follows: any person who is affected by the environment and society can appeal to the local village committee and county/township government orally or in a writing form. The primary section should solve this complaint within two weeks upon receiving the appeal. If the complainants are not satisfied with the decision of the primary organization, they can appeal to the coordination management group of the county PMO. The coordination management group of the county PMO should solve this complaint within two weeks upon receiving the appeal. If the complainants are not satisfied with the decision of the second phase, they can appeal to the local professional supervision department, reviewed by the local Environmental Protection Bureau and Land Management Bureau. If the complainants are not satisfied with the decision of the third phase, they can submit the appeal to the people's court, subject to civil procedure.

Public consultation and information disclosure for the safeguards documents are in Section 9 of EMP for the project.

11 Appendix

Annex 1: DRAFT Screening Form for Potential Environmental and Social Safeguards Issues and to Determine Applicability of Relevant Chinese Laws and Bank Policies

The Project Management Office (PMO) will use this Form to screen all sub-project applications.

- Name of Sub-project: _____
- Number of Sub-project: _____
- Proposing Agency: _____
- Sub-project Location: _____
- Infrastructure to be rehabilitated or constructed: _____
- Estimated Cost: _____
- Proposed Date of Commencement of Work: _____

For compliance with Chinese environmental regulations, does this sub-project require any of the following safeguards documents?

- A full EIA: Yes:__ No:__
- A simplified EIA: Yes:__ No:__
- Other Environmental requirements: Yes:__ No:__

Screening Checklist for World Bank Environmental and Social Safeguards

Questions	Answer		If Yes WB Policy triggered	
	yes	no		Documents requirement if Yes
Is the proposed sub-project likely to have minimal or no adverse environmental impacts?			OP 4.01 Category C	No action needed beyond screening
Are the sub-project impacts likely to have adverse environmental impacts that are sensitive, diverse or unprecedented?			OP 4.01 Category A	Not eligible
Do the impacts affect an area broader than the sites or facilities subject to physical works and are the significant adverse environmental impacts irreversible?			OP 4.01 Category A	Not eligible
Is the sub-project neither a Category A nor Category C as defined above?			OP 4.01 Category B	EIA or Environmental Management Plan (EMP)

Will the sub-project be supporting reconstruction or preservation of physical cultural resources? Will the sub-project adversely impact physical cultural resources?			OP 4.11	Not eligible
Does the sub-project construct a new dam or rely on the performance of an existing dam or a dam under construction?			OP 4.37	The irrigation facilities supported by the project include small water storage tanks to store groundwater and rainwater cisterns. The project will not finance construction or rehabilitation of any dams or dependent on any dams as defined under this policy.
Will the sub-project involve the significant conversion or degradation of critical or non-critical natural habitats?			OP 4.04	Not eligible
Does the sub-project involve involuntary land acquisition or prior acquisition of land or demolition of existing structures?			OP 4.12	Abbreviated Resettlement Action Plan (ARAP)/Resettlement Action Plan (RAP
Are there any ethnic minority communities present in the project area and are likely to be affected by the proposed sub-project?			OP 4.10	Ethnic Minority Development Plan/Indigenous Peoples Plan

Screening Tool Completed and Reviewed by:

Signed by Environmental Specialist in PMO:

Name: _____

Title and Date: _____

Signed by Social Specialist in PMO:

Name: _____

Title and Date: _____

Signed by Project Manager in PMO:

Name: _____

Title and Date: _____

One copy of this Form and accompanying documentation will be kept in the PMO, one copy will be sent to the World Bank, and a third copy, if necessary, sent to the concerned provincial government agency.

Annex 2: Resettlement Policy Framework

Refer to the stand-alone document- Resettlement Policy Framework

Annex 3: Negative List of Subprojects

(1) List of address and sensitivity

In order to avoid or mitigate the impact of the proposed project on the natural habitat, immigrants, minorities and cultural heritage, in selecting the location of proposed project, it should avoid the following areas:

- Nature reserves, geological parks, national forest parks, scenic tourist areas;
- Water source protection areas at all levels and water conservation areas;
- Cultural relics or historic sites;
- Located in high population density areas, or in the areas where it can bring serious impact on residents' life
- Located in the areas that are vulnerable to earthquakes, landslides, floods and other natural disasters

At the same time, in selecting the area for proposed project, the following regions should be highly concerned:

- Ecologically sensitive areas, such as forests, wetlands and habitat of endangered species, etc;
- Located in or close to the minorities areas.

In table 5, it lists the sensitivity analysis of the relevant issues in Shaanxi Province.

Table 5 Site Selection and its category of sensitivity analysis

Security Policy or Character of Site Selection	Shaanxi Province
Natural habitats（OP 4.04）	Far away from the natural reserve. **Low sensitive area.**
Water resource and water quality	The project uses less water, and there are not many parties to use the water, so there is not water quality issue. **Low sensitive area.**
Vulnerability of natural disaster: flood, soil and water conservation/erosion	Located in the Loess Plateau, soil erosion is more serious and the geological disasters are possible to occur. **Moderate sensitive area.**
Material cultural resources（OP4.11）	There are no known or suspected cultural relics. **Low sensitive areas.**
Resettlement（OP 4.12）	Low population density and population spread widely. Legal land use rights are clear and water use rights are clear. **Low sensitive areas**
Minority（OP 4.10）	No ethnic minority. **Low sensitive area**

(2) List of Project Selection

In order to protect the environment, prevent the pollution, protect and conserve resources, the project will not support the following construction activities:

- Large scale livestock and poultry breeding;
- Land reclamation and planting in the slope which slope angle is greater than 25 degrees;
- Large warp land dam;
- the construction and expansion of the tertiary and above highways
- Mining projects;
- Industries producing serious pollution, such as the “small 15”(Note: this the 15 types of small companies that concluded by the Chinese government)
- Tobacco growing;
- Large volume of water-consumption projects;
- The introduction of exotic plant and animal species without risk assessment;
- A lot of pesticide procurement projects;
- Construction of dam which is more than10 meters high;
- Construction of landfills and sewage treatment plants project;
- Prohibited activities that violated the national and international treaty

Annex 4 Project Area Map.