
Environmental and Social Management System Arrangement (DRAFT)

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PRC: Catalyzing Climate Finance (Shandong)

Prepared by Shandong Development and Investment Holding Group for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 15 June 2018)

Currency unit	–	Yuan (CNY)
€1.00	=	CNY7.44
\$1.00	=	CNY6.42
\$1.00	=	€0.86
€1.00	=	\$1.16

NOTE

In this report, "\$" refers to US dollars

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ABBREVIATIONS

ADB	–	Asian Development Bank
AP	–	Affected Person
CAP	–	Corrective action plan
CRVA	–	Climate risk and vulnerability assessment
EHS	–	Environmental, health and safety
EIA	–	Environmental impact assessment
EMP	–	Environmental management plan
EMoP	–	Environmental monitoring plan
EPB	–	Environmental Protection Bureau
ESMS	–	Environmental and social management system
GRM	–	Grievance redress mechanism
IEE	–	Initial environmental examination
MEP	–	Ministry of Environmental Protection
PIAL	–	Prohibited investment activities list
PRC	–	People's Republic of China
REA	–	Rapid environmental assessment

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I. INTRODUCTION

A. The Programme

1. The Programme will pilot an innovative, transformational and disruptive financing mechanism of \$1.5 billion to catalyze climate finance for a portfolio of bankable climate resilient projects in Shandong Province, People's Republic of China (PRC). Shandong is a coastal province located in the eastern part of the country and a labor reservoir with a population of 99.47 million. Shandong faces significant climate change (CC) challenges: (i) mitigation from energy, urban activities and industrial transformation; and (ii) adaptation from water resources, agriculture, coastal and ecological vulnerable areas, as a limiting factor for growth at the core of the water – food – energy nexus. Shandong tops the country's energy consumption and the number of motor vehicles, responsible for most of the greenhouse gas emission (GHG). The Programme will support provincial government's proactive policies to decarbonize its economy through coal substitution and industrial transformation. Shandong has set a target to achieve the peaking of carbon dioxide emissions around 2027 which is earlier than the national goal.

2. The Programme aims to leverage 5–10 times private, institutional and commercial (PIC) finance for climate resilient projects assessed against both climate and financial eligibility criteria. The Programme will consist of a mix of public and private sector funding of \$1 billion, concessional resources of \$500 million, including a loan from the Asian Development Bank (ADB) \$100 million (Lead) and cofinancing from Agence Française de Développement (AFD) €75 million; Kreditanstalt für Wiederaufbau (KfW) €100 million; and, Green Climate Fund (GCF) contribution of \$180 million, that are required to reach sufficient critical mass to significantly leverage PIC funding. The Programme will then finance a portion of the total capital expenditure of selected climate resilient projects for a capped period required to make the projects bankable, by addressing the upfront project risks and promoting advanced technologies and integrated approach for climate change. The level of concessionality and the financing terms are linked to the climate criteria/performance in line with GCF investment framework.

3. The Shandong provincial government is establishing SGDF to transform its economy under an experienced financial intermediary, Shandong Development and Investment Holding Group¹ (SDIHG), a State-Owned Enterprise fully owned by the provincial government. SDIHG is operating under commercial law and legally as well as financially autonomous. SDIHG's track record of successful investment provides a sound base for piloting the Programme. SDIHG has experience in ensuring that planned investments meet broader policy requirements, as well as more stringent criteria than common practice. The Province and SDIHG management are very supportive of making SGDF a world-class facility for mainstreaming climate finance.

4. The Programme creates an umbrella Facility, SGDF, piloted in Shandong. The Programme links climate related investments to concessional sovereign funding under the measurable CC indicators of the GCF investment framework. The Programme pilots a framework for climate investment financing, providing a co-financing vehicle for PIC finance. The Programme finances a portfolio of climate related projects sponsored by local governments or the private sector through ring-fenced and special purpose vehicles with mandatory climate and environmental sustainability (e.g. GHG reduction plus land, water, and air pollution indicators); and financial bankability indicators (e.g. financial IRR, debt service coverage ratio), conditional on PIC

¹ A description of the state-owned enterprise is included in Section C.4.

leverage ratio and transformational or advanced benefits categorization against the GCF investment framework.

5. The CC project pipeline **spans several sub-sectors** and will focus on maximizing investment in CC **mitigation (75%), resulting in a conservative estimate of 50 million tons CO₂e** over the lifespan of the subprojects (25 years, excluding 5 years for approval and construction), and **adaptation (25%) with 10 million direct beneficiaries** (about 10% of Shandong Province):

Priority Sectors:

- Green buildings, including green construction, district heating and cooling addressing CC mitigation and adaptation
- Urban transport, including electric vehicles and public transport green corridor development addressing inclusiveness and gender and CC mitigation
- Clean energy, including renewables energy, biomass, energy efficiency addressing GHG emission reduction
- Energy storage, such as hydrogen batteries, addressing CC adaptation

Other Sectors:

- Water and sanitation, including drainage, sponge cities, reuse and water efficiency addressing the Water – Food – Energy Nexus, urban utility integration (e.g. transport, water, energy), and CC adaptation
- Waste management, including waste to energy, recycling and hazardous waste addressing GHG emission reduction
- Environment, including forestry and land remediation addressing CC adaptation and CC mitigation through sequestration

6. However, environmental, resettlement and social impacts may happen during the implementation process of these projects. For example, the implementation of climate resilient projects may result in loss of land or income (temporarily or permanently), impact on cultural resources or on environment. This Environmental and Social Management System (ESMS) is a guide for SGDF to avoid or minimize such risks at design stage and mitigate those risks during implementation including rectification measures for environment, resettlement and social, including gender and vulnerable people affected by the Project.

7. The Programme has been categorized following ADB Safeguard Policy Statement (SPS) 2009: (i) B for Environment with Projects Category A Environment excluded from the Programme; (ii) A for Resettlement; (iii) C for Indigenous People. The categorization forms under Green Finance Catalyzing Facility are included in Appendix. In addition, the Programme is classified Effective Gender Mainstreaming with a Gender Framework (enclosed)

B. Environmental and Social Management System

8. The ESMS is maintained and implemented by SGDF, as part of the overall management systems to comply with the relevant PRC laws and regulations as well as GCF Environmental and Social Policy, AFD and KfW safeguard and social policies and ADB SPS. The ESMS applies to any Projects supported by the Programme (funded by SGDF), including sub-funds. In case of

discrepancies between PRC legislation and ADB SPS 2009; ABD SPS 2009 will apply as per the terms and conditions set in the Loan Agreement.

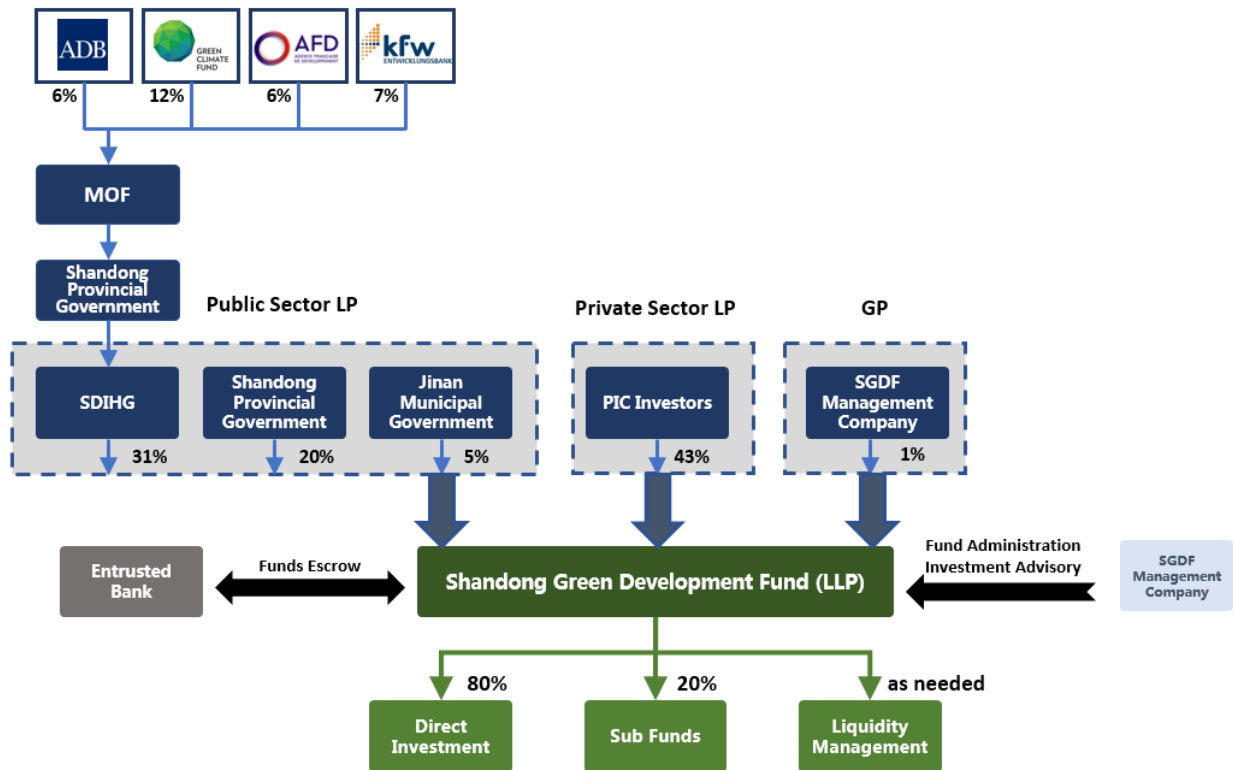
9. The screening and categorization procedures established under the ESMS ensure that all Projects are screened, categorized, pre-selected and properly appraised in terms of their environmental and social impacts/risks as well as improvement for climate mitigation and adaptation. The ESMS contains (i) environmental and social policies; (ii) screening, categorization, and review procedure; (iii) organizational structure and staffing, including training; (iv) initial environmental examination (IEE) requirements; (v) resettlement plans (RP); and (vi) monitoring and evaluation (M&E) and reporting. The ESMS serves as the basis for all Projects screening and categorization, due diligence and review, supervision and monitoring and verification and evaluation.

10. The ESMS provides an enabling mechanism to bridge the gap between PRC environmental, health and safety (EHS) regulations and the cofinanciers, including GCF and ADB SPS 2009,² for Projects financed under the Programme by SGDF. The ESMS defines roles, responsibilities, and procedures to avoid, minimize, and mitigate any (i) direct, indirect, cumulative, and induced adverse impacts / risks on the environment; (ii) adverse impacts and risks of involuntary resettlement; (iii) adverse impacts on ethnic minorities and their communities that may arise from the implementation of such sub-projects. The ESMS also covers social impacts on vulnerable groups of population and a gender framework (Separate Report).

11. SDIHG, as the Management Company and General Partner for SGDF adopts the ESMS for the overall management system for the Programme. SGDF performs environmental and social screening, categorization and due diligence of candidate Projects to be financed under the Programme. The day-to-day implementation of ESMS is by a full-time safeguard staff of SGDF with proven experience in environmental, health and safety (EHS). SGDF Fund Structure is presented in the following diagram:

² For instance, public consultation, grievance redress mechanism, and community health and safety are not critical components in the PRC EHS regulations but are required in ADB SPS 2009.

SGDF Fund Structure



12. The ESMS is established and documented as part of the Programme’s overall management systems managed by SGDF. The roles and responsibilities of the different entities involved in implementation and oversight of the ESMS are summarized in Table I-1.

Table I-1: Roles and responsibilities related to ESMS

Project Implementation Organization	Management Roles and Safeguards Responsibilities
SDIHG (SGDF Management Company)	<ul style="list-style-type: none"> • Disclose the ESMS to affected persons in Project area. • Ensure compliance with ESMS, especially ADB’s SPS 2009 and cofinanciers as well as other requirements relating to environmental and social safeguards. • Ensure full implementation of this ESMS. • Take ultimate responsibility for ESMS implementation. • Adopt the ESMS as part of its overall management system. • Duly and diligently implement and meet all the requirements of ESMS, which can be revised and updated, if necessary, in consultation with ADB (Lead) and other cofinanciers. • Maintain a qualified and experienced full-time staff to manage the ESMS. • Strengthen the ESMS team, if required through the technical

	<p>assistance program.</p> <ul style="list-style-type: none"> • Review Project applications: Screen; categorize; appraises from an ESM perspective; • Select Projects in accordance with the selection criteria, due diligence and approval procedures described in the ESMS. • Supervise and monitor ESMS implementation progress of Projects, including compliance with the terms and conditions of the Project agreements, which include this ESMS. • Conduct site visits and safeguard review missions with ADB and the cofinancier in accordance with the requirement of the ESMS. • Request immediate remedial and corrective actions in the event of noncompliance with the obligations under Project agreements in respect to the ESMS. • Ensure environmental and social safeguard compliance of all Projects in accordance with PRC laws and regulations, ADB SPS 2009 and the cofinanciers. • Meet all ESMS reporting requirements and retains supporting documentation for examination during review missions.
<p>Projects borrowers; Project Sponsors and Sub-Funds</p>	<ul style="list-style-type: none"> • Obtain the required approvals from relevant authorities, such as local Environmental Protection Bureau (EPB) in accordance with all applicable PRC laws and regulations. • Implement Projects in accordance with the Project agreements. • Report to SGDF as required under the Project Agreement. • Ensure the Projects comply with the requirements assigned to sub-borrowers under the ESMS. • Provide M&E and verification and evaluation information and participate in the review missions of the Programme. • Comply with applicable PRC laws and regulations; ADB SPS 2009 and Cofinanciers requirements.
<p>ADB Project Team</p>	<ul style="list-style-type: none"> • Support SDIHG and SGDF by providing advice, guidance, supervision and monitoring on the ESMS implementation in accordance with SPS 2009 and specific Cofinanciers' requirements. • Conduct site visits as part of review missions • Review and comment on Project progress reports, IEEs, RPs, ESMS implementation reports. • Monitor the implementation of the ESMS and recommend updates to the ESMS as required. • Review and Approve updates to the ESMS proposed by SDIHG. • Require SDIHG to develop immediate corrective actions, if necessary and act on any non-compliance issues in a timely manner. • Organize Programme Completion Report jointly with various agencies and stakeholders.

C. Project Implementation Arrangement

13. SDIHG is the Management Company of SGDF and act Project Management Office managing the Programme and the concessional funds from ADB and the cofinanciers. SDIHG is responsible for the day-to-day project management implementation including the ESMS, and monitoring of the implementation and performance of Projects funded by SGDF under the Programme. SGDF Organizational Structure is presented in the following diagram.



14. SDIHG assesses, appraises and approves investments in sub-funds and direct investment Projects through an investment committee set-up at the level of SGDF as per the enclosed SGDF Transaction Cycle.

SGDF Transaction Cycle



15. . The investment review and approval process include investment structuring to mitigate technical and financial risks as well as appraisal of environmental and social impacts and risks under the ESMS.

16. The roles and responsibilities of the different entities involved in implementation and oversight of the ESMS are summarized in Table I-2.

Table I-2: ESMS Implementation Arrangement

Tasks	Task execution (responsible/focal person)	Implementation Responsibility (Sign-off authority)
Screen Projects	SGDF (ESMS manager or designated staff)	SDIHG
Prepare and submit of safeguard categorization with summary description of Project	SGDF (ESMS manager or designated staff)	SDIHG
Perform initial site visit	SGDF Designated specialists and/or Safeguard Specialist	SDIHG
Update safeguard categorization	SGDF Safeguard Specialist with support from designated specialists	SDIHG
Prepare Project IEE and RP	Project consultants	Project Sponsor

Conduct required environment and social due diligence and review relevant reports (IEE, RP) of Projects prepared by the Project Sponsor	SGDF Safeguard Specialist with support from designated specialists	SDIHG
Prepare and submit Project environmental and social monitoring progress reports	Project consultants	Project Sponsor
Review Project environmental and social monitoring progress reports	SGDF Safeguard Specialist	SDIHG
Prepare and submit consolidated environmental and social monitoring reports as required in the ESMS	SGDF Safeguard Specialist	SDIHG
Prepare and submit of ESMS implementation reports as required in the ESMS	SDIHG designated specialists	SDIHG
Review ESMS implementation reports	ADB Project Team	ADB and Cofinanciers

II. ENVIRONMENTAL AND SOCIAL MANAGEMENT POLICY AND APPLICABLE REQUIREMENTS

17. This chapter describes environmental and social management policies and applicable requirements for the Programme.

A. ESMS Policy

18. SDIHG is committed to ensuring environmental and social sustainability of the Projects financed under the Programme. In this context, the goal of the ESMS is to promote the sustainability of Project outcomes by protecting affected people and the environment from Projects' potential adverse impacts. The objectives of the ESMS policy are to:

- (i) avoid adverse impacts of Projects on the environment and affected people, where possible;
- (ii) minimize, mitigate, and/or compensate for adverse Project impacts on the environment and affected people when avoidance is not possible;
- (iii) maximize opportunities for environmental and social benefits including capacity development of Project Sponsors to manage environmental and social risks.

19. The ESMS includes policy objectives and principles for three areas: (i) environment; (ii) involuntary resettlement; (iii) ethnic minority communities; (iv) gender.

20. **Environmental objectives** adopted for all selected Projects for funding by SGDF are to (i) ensure the environmental soundness and sustainability of each Project, (ii) support the integration of environmental considerations into the Project decision-making process. The Programme is categorized B Environment by ADB and Category A Environment Projects are excluded from SGDF funding. The **environmental policy principles** adopted for all selected Projects are as follows:

- (i) Use a screening process for each Project, as early as possible, to determine the appropriate extent and type of environmental assessment and/or audit required so that appropriate studies are undertaken commensurate with the significance of the Projects' potential environmental and social impacts and risks.
- (ii) Conduct an IEE and/or environment audit³ for Projects to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the Project's area of influence. Assess potential transboundary and global impacts, including climate change impact.
- (iii) Examine alternatives to the Project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting an alternative. The no-Project alternative should also be considered.
- (iv) Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare a corrective action plan (CAP)⁴ and/or an environmental management plan (EMP), including appropriate mitigation measures, environmental monitoring and reporting

³ Environmental audit needs to be performed if a subproject involves existing activities or facilities that are already exist or under construction to determine the existence of any areas where the project may cause or is causing environmental risks or impacts.

⁴ If environmental audit identifies any non-compliance or area of concern, a corrective action plan will be developed to provide appropriate corrective actions for each area of concern including costs and schedule.

requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to the environment and people, and the polluter pays principle.

(v) Disclose information to the public on SDIHG/SGDF websites or local government offices in the Project area and carry out meaningful consultation⁵ with affected people and facilitate their participation. Ensure women's participation in the consultation process. Involve stakeholders, including affected people and concerned non-government organizations, early in the Project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into consideration. Continue consultations with stakeholders throughout project implementation as necessary to address issues related to environmental and social impacts.

(vi) Establish a grievance redress mechanism (GRM) to receive and facilitate resolution of the affected people's concerns and grievances regarding the subprojects' environmental impact and performance.

(vii) Disclose the IEE, including the EMP and/or CAP on ADB website in a timely manner before Project approval, and in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final IEE and its updates, if any, on ADB website and to affected people and other stakeholders.

(viii) Implement the EMP/CAP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions, and disclose environmental and social monitoring reports.

(ix) Do not implement Project activities in areas of critical habitats (Category A environment Projects as per ADB SPS 2009 are excluded from funding by SGDF).

(x) Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards. Adopt cleaner production processes and good energy efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges, including air emissions, discharges to water or soils, noise, direct and indirect greenhouse gases emissions (if not, prepare offset measures), waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials subject to international bans or phase-outs. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.

(xi) Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease. Provide safety training to workers during construction as well as operation of the project. Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize adverse impacts and risks to the health and safety of local communities in conjunction with them.

(xii) Conserve cultural heritage resources and avoid destroying or damaging them; do not implement subproject activities in areas where support cultural heritage resources or "chance-find" cultural heritage resources are expected to be found.

⁵ Meaningful consultation is a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

21. The **involuntary resettlement policy objectives** are to avoid, minimize or mitigate involuntary resettlement through improved design and implementation. The Programme is categorized A by ADB for Involuntary Resettlement. The involuntary resettlement policy principles are:

(i) Screen and categorize the Project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.

(ii) Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.

(iii) Improve, or at least restore, the livelihoods of all displaced persons through (a) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (b) prompt replacement of assets with access to assets of equal or higher value, (c) prompt compensation at full replacement cost for assets that cannot be restored, and (d) additional revenues and services through benefit sharing schemes where possible.

(iv) Provide physically and economically displaced persons with needed assistance, including the following: (a) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (b) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (c) civic infrastructure and community services, as required.

(v) Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.

(vi) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.

(vii) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets.

(viii) Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.

(ix) Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.

(x) Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits.

For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.

(xi) Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.

(xii) Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

22. The **ethnic minority policy**: The Programme is categorized C by ADB and SGDF cannot finance Projects with indigenous people / ethnic minorities living in the Project area.

23. The **gender and social dimension objective** is to ensure that contractors and service providers engaged in the Programme and in Projects (i) give equal pay for equal work regardless of gender, ethnicity or social group; (ii) give priority to women in the employment and training opportunities generated under the Programme; (iii) maximize the employment of local people who meet the job and efficiency requirements for Project construction, operation and maintenance; (iv) provide workers with adequate on-the-job and safety training; (v) disseminate information on sexually transmitted diseases (including HIV/AIDS) and human trafficking to subcontractors/employees and local communities surrounding the subproject construction sites; (vi) implement HIV/AIDS awareness and prevention training for subcontractors/employees; (vii) implement human trafficking awareness activities; (viii) provide necessary measures to ensure the safety and health of its subcontractors/employees; and (ix) observe local customs concerning acceptable behavior towards the local population.

24. SDIHG will ensure and enhance effective environmental and social management practices in all Projects financed under the Programme with a special focus on the following:

- (i) Ensuring that applicable environmental and social safeguard requirements, as defined in this ESMS are met for all Projects;
- (ii) Providing finance only when the Projects are expected to be designed, constructed, operated, and maintained in a manner consistent with applicable environmental and social safeguard requirements, as defined in this ESMS;
- (iii) Integrating environmental and social risks into its internal risk management analysis;
- (iv) Ensuring that design changes/adaptation options prescribed in the climate risk and vulnerability assessment (CRVA) will be taken into account in the final design of greenfield Projects if applicable;
- (v) Ensuring transparency in the sub borrowers' activities;
- (vi) Ensuring sub borrowers to conduct meaningful consultation with affected people, local communities and the general public;
- (vii) Working together with the sub borrowers' management to put into practice applicable environmental and social safeguard requirements; and
- (viii) Promoting investments with environmental and social benefits.

25. This policy will be communicated to all staff and operational employees associated with the Programme as well as sub borrowers.

B. Applicable Environmental and Social Regulations in the PRC

26. The PRC has established a comprehensive environmental laws and regulations for greenfield projects as well as operations of existing facilities. A list of PRC national laws and

regulations concerning environmental, health, safety, labor, and other social issues of existing facilities as well as greenfield projects is provided in **Appendix 1**, supplemented by relevant ordinances, circulars and technical standards, and guidelines as published from time to time. In addition, Shandong provincial/municipal government agencies may establish regulations and policies to supplement the national laws and regulations. SDIHG will ensure that all these regulations that will be used will be constantly updated in accordance with industry, national and ADB SPS and the Cofinanciers. In case of discrepancies between PRC legislation and ADB SPS 2009; ABD SPS 2009 will apply as per the terms and conditions set in the Loan Agreement.

27. Environment: Proposed Projects to be developed by SDIHG and funded by SGDF will strictly comply with relevant environmental protection laws and regulations of the PRC. These laws and regulations include, but are not limited to, the following:

National Laws

- ♦ The Law of the People's Republic of China on the Environmental Protection (2014)
- ♦ The Law of the PRC on the Environmental Impact Assessment (EIA) (2016)
- ♦ The Law of the PRC on the Prevention and Control of Environmental Noise (1996)
- ♦ The Law of the PRC on the Prevention and Control of Atmospheric Pollution (2015)
- ♦ The Law of the PRC on the Prevention and Control of Water Pollution (2008)
- ♦ The Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste (2015)
- ♦ The Law of the PRC on Water (2002)
- ♦ The Law of the PRC on Promoting Clean Production (2002)
- ♦ The Law of the PRC on Energy Conservation (2007)
- ♦ The Law of the PRC on Circular Economy Promotion (2008)
- ♦ The Law of the PRC on Renewable Energy (2009)
- ♦ The Law of the PRC on Water and Soil Conservation (2010)

National Regulations / Provisions

- ♦ The Decision of the State Council on Several Issues Relating to Environmental Protection (1996)
- ♦ The Administrative Regulations for Project Environmental Protection in Construction Projects (1998)
- ♦ The EIA Law of the PRC (2002)
- ♦ Classified Administration Catalogue of EIAs for Construction Projects (2015)
- ♦ The Administrative Measures for the Environmental Acceptance Inspection of Construction Projects (2002)
- ♦ The Measures for the Prevention and Control of Environmental Pollution by Discarded Dangerous Chemicals (2005)
- ♦ The Interim Measures for Public Participation in EIA (2006)

28. PRC has a sound and strict environmental approval system for greenfield projects. SDIHG shall ensure that all Projects to be funded by SGDF meet the relevant environmental protection laws and regulations of the PRC as well as relevant local environmental laws and regulations. Relevant regulations or guidelines issued by the Shandong Provincial government will prevail in circumstances where there are local applicable regulations in addition to complying with the requirements outlined in the ESMS.

29. Involuntary Resettlement: Proposed subprojects to be developed by SDIHG will strictly comply with relevant laws and regulations of the PRC on involuntary resettlement. These laws and regulations include, but are not limited to, the following:

National Level:

Document Name	Issuing Department	Current Version Effective Year
Land Administration Law of the People's Republic of China	National People's Congress Standing Committee	2004
Regulations of the People's Republic of China on Land Administration Law	State Council	2014
Decision of the Ministry of Land and Resources on Amending the "Administrative Measures for Prequalification of Land for Construction Projects"	Ministry of Land and Resources	2017
Notice on Printing and Distributing the "Guiding Opinions on Improving Compensation and Resettlement System for Land Acquisition"	Ministry of Land and Resources	2004
People's Republic of China Property Law	National People's Representative Meeting	2007
Guiding Opinions on Improving Compensation and Resettlement System for Land Acquisition	Ministry of Land and Resources	2004
Guidelines for Social Assessment of Urban and Rural Development	Housing and Urban-Rural Development	2011
Regulations on the Acquisition and Compensation of Houses on State-owned Land	State Council	2011
Basic Farmland Protection Regulations	State Council	1999

Shandong Provincial Level:

- Opinions on Further Intensifying Management on Land Acquisition (【2017】No,76)
- Interim Measures for Risk Assessment of Social Stability of Major Fixed Assets Investment Projects of Shandong([2014] No.471)

30. Other relevant regulations or guidelines issued by the Shandong provincial government will prevail in circumstances where there are local applicable regulations in addition to complying with the requirements outlined in the ESMS.

31. The basic objectives and principle of ADB's SPS regarding the land acquisition and involuntary resettlement and that of the PRC and Shandong policies generally remain consistent. ADB SPS requires to avoid resettlement if possible, and if unavoidable, the provision of rehabilitation measures should be implemented to restore incomes and livelihoods. Similarly,

PRC adopts a development-oriented resettlement policy which combines compensation, subsidy, and late-stage support to enable immigrants to live at or exceed their original levels.

32. However, there are some differences concerning assistance provided and procedures presented in the following Table.

Table 1 Gap Analysis on ADB and PRC Policy Regarding the Involuntary Resettlement.

No.	ADB Policy on Involuntary Resettlement	Comparison with PRC Policies	Gap-filling Measures
1	<p>Compensation Standards The lost property should be compensated at the replacement value. No depreciation based on age will be permitted for house valuations.</p>	<p>Different standards in compensation and subsidies.</p> <ul style="list-style-type: none"> • Land value is based on a multiple of annual gross output value • housing is assessed based on appraisal of professional agencies. • Young crop subsidy is calculated according to the output value of the current season crop at the time of land acquisition • compensation for ground attachments shall be specifically compensated by local governments. 	<p>Fully consider case-specific circumstance and work closely with parties involved to come up with specific compensation in the RP. Practical solutions to be put in place in lieu of local regulations, and in compliance with ADB policy.</p>
2	<p>Public Consultation and Information Disclosure The affected persons are fully aware of the resettlement and land acquisition and they are fully consulted with. Borrowers to conduct meaningful consultation with communities, groups, or people affected by the proposed projects/subprojects, and with civil society.</p>	<p>In the PRC, the information disclosure usually takes place after RP approval.</p>	<p>ADB procedural requirements for meaningful consultation and disclosure prior to RP approval will be followed.</p>
3	<p>Disadvantaged Groups Identify individuals and groups who may be differentially or disproportionately affected by the project because of their disadvantaged or vulnerable status. As such individuals and groups are identified, the borrower/client will propose and implement targeted measures so that adverse impacts do not fall disproportionately on them and they are not</p>	<p>Different level of attention to disadvantaged groups. The PRC approach is equal treatment based on physical losses rather than socio-cultural impact. Normally, vulnerable groups are assisted through existing local government programs during implementation. But there is no additional policy to identify and support disadvantaged groups.</p>	<p>RP will follow ADB policy to conduct social impact assessment and formulate measures based on degree of impacts, particularly for women and vulnerable groups.</p>

	disadvantaged in relation to sharing the benefits and opportunities resulting from development.		
4	APs that can claim compensation APs with lack of land or property ownership rights should still be eligible for compensation and rehabilitation; although ADB does not require.	In the PRC, people without land ownership for house plots do not get compensated for land.	Identify if APs without land ownership exist, and come up with practical solutions to be put in place in lieu of local regulations, and in compliance with ADB policy.

C. Environmental and Social Safeguard Requirements for the Programme

33. SDIHG will ensure that:

- (i) All Projects financed by SGDF under the Programme are screened and categorized against the Prohibited Investment Activities List (PIAL) in SPS 2009 (**Appendix 2**), and that any Projects involving activities included in the PIAL will not be supported by the Programme (financed by SGDF);
- (ii) All Projects financed by SGDF under the Programmed are reviewed and evaluated against Safeguard Requirement 1-3 of ADB's SPS 2009 (**Appendix 3**);
- (iii) All Projects financed by SGDF under the Programme are reviewed and evaluated against the PRC laws, regulations, and standards on environment, pollution management, occupational health, safety, involuntary resettlement and land acquisition, ethnic minorities, biodiversity, and physical cultural resources and Shandong provincial level regulations to confirm that they comply; and
- (iv) All Projects financed by SGDF throughout the entire implementation period of the Programme are evaluated to ensure ongoing compliance against applicable environmental and social safeguards requirements included in the ESMS and PRC laws and regulations.

III. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

34. This ESMS sets out screening, categorization, and appraisal procedures for all new Projects to be financed under this Programme. Projects to be financed under the Programme shall comply with all environmental and social safeguard requirements under the ESMS. It is important to note that the ESMS is a living document, which can be revised if necessary.

A. Screening and Categorization

35. Interested parties or Projects owners may apply for financing under the Programme for consideration. Once the applications from potential Projects are received, the procedure described below will be followed for Project screening and categorization.

36. At an initial stage of identifying potential qualified Projects, the ESMS designated staff of SDIHG will cross check with ADB's PIAL (and GCF). If the Project involves a prohibited activity on the PIAL, the Project company will be informed that it will not be considered under the Programme. Otherwise, the ESMS designated staff at SDIHG will inform the Project company that the Project is eligible for further consideration.

37. Once it is confirmed that the project is not in ADB's PIAL (and GCF), the Project company shall prepare and submit (i) detailed Project description; (ii) evidence/proof that the Project complies with applicable national laws and regulations to ESMS designated staff at SDIHG.

38. At the Project identification stage, SDIHG ESMS team will work with the Project company to make rapid assessment of the likely environmental and involuntary resettlement impacts, effects on ethnic minorities of the subprojects by using the attached sample rapid environmental assessment (REA) checklist,⁶ including a checklist for preliminary climate risk screening (**Appendix 4**), and social safeguard screening checklists (**Appendix 5**). These checklists are developed to assist the determination on the significance of potential environmental and social impacts/risks associated with the Projects.

39. After receiving these completed documents from the Project company and based on REA, ESMS designated staff at SDIHG will go for an initial site visit to each Project, check whether the information provided in the completed forms is correct. If incorrect, information shall be corrected during the site visit and the REA will then be considered complete. If there are any environmental and social safeguard issues raised by the local authority, the issues should be investigated during the site visit by ESMS designated staff at SDIHG with results documented as an attachment to the checklist.

40. During the site visit, the ESMS designated staff at SDIHG will perform the following tasks to the Project and associated facilities:

- (i) confirm that the information included in the checklist that could influence environmental and social categorizations (e.g., all potential environmental and social impacts/risks of the Project) is comprehensive and correct;
- (ii) verify that any existing facility is in full compliance with applicable PRC laws and regulations;
- (iii) check whether any existing facility has GB/T 24001 (equivalent to ISO 14001) Environmental Management Systems, and/or GB/T 28001:2001 (equivalent to OHSAS 18001) Occupational Health and Safety Management Systems certifications; and check the status of corrective

⁶ Specific sector REA checklists will be provided to ESMS staff of SDIHG with associated trainings

actions for the findings in the most recent GB/T 24001 and/or GB/T 28001 audit(s) if applicable;

- (iv) identify potential operational EHS risks associated with the operational practices observed at any existing facility as refers to Project activity;
- (v) conduct brief environmental and social consultation through interviews with employees, residents and/or local environmental authorities including the environmental protection bureau (EPB);
- (vi) present and discuss a Project-level GRM, including GRM information disclosure;
- (vii) verify whether there has been recent land acquisition (in the past 2 years) by the host company and whether there are any outstanding compensation payment issues or disputes;
- (viii) check whether environment and social due diligence of other related, associated or linked facilities would be required;
- (ix) confirm boundaries of potential adverse impacts in terms of affected person.
- (x) check whether there are any ethnic minority communities within these boundaries.

41. Once the checklists and the verification work are completed by ESMS designated staff at SDIHG, the environmental and resettlement categorizations of the Project shall be prepared based on the ADB's categorization system concerning the significance of the Project's potential impacts (**Appendix 3**). Categorization will be documented on the attached Environmental Safeguard Screening Checklists including detailed project description (**Appendix 4**) and the attached Social Safeguard Screening Checklists (**Appendix 5**).

42. Potential Project's category is determined by the category of its most environmentally sensitive component, including direct, indirect, cumulative, and induced impacts in the Project's area of influence. This area of influence encompasses: (i) the primary Project site(s) and related facilities that the investment company (including its contractors) develops or controls, such as power transmission corridors, pipelines, canals, tunnels, access roads, borrow pits and disposal areas, and construction camps; (ii) associated facilities that are not funded as part of the investment (funding may be provided separately by the investment company or by third parties), and whose viability and existence depend exclusively on the investment and whose goods or services are essential for successful operation of the investment; (iii) areas and communities potentially affected by cumulative impacts from further planned development of the investment, other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that are realistically defined at the time the assessment is undertaken; and (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the investment that may occur later or at a different location. The area of influence does not include potential impacts that might occur without the investment or independently of the investment.

43. Each Project is scrutinized as to its type, location, scale, and sensitivity and the magnitude of its past, current (if a subproject involves existing facilities) and potential future environmental and/or social impacts. It shall be assigned to one of the following three categories, which are in alignment with ADB SPS 2009:

- (i) **Category A.** With potential significant environmental and/or social impacts;
- (ii) **Category B.** With less significant environmental and/or social impacts; and
- (iii) **Category C.** With minimal or no environment impacts and no social impacts.

Category A Environment Project are excluded from funding from SGDF.

44. As for involuntary resettlement, the categorization will be determined whether or not a potential Project involves involuntary resettlement, including restrictions on land use or access to common properties (e.g., environmental protection buffer zone). The degree of impact shall be

determined by (i) the scope of physical and economic displacement, and (ii) the vulnerability of the affected persons. Category A refers to project activities with potential significant involuntary resettlement impact (over 200 affected persons). Category B refers to project activities that have involuntary resettlement impact but not significant. Category C refers to project activities that do not have any impact on involuntary resettlement. **Category A, B and C resettlement can be funded by SGDF with the proper documentation as per the ESMS.**

45. As for indigenous people’s safeguard, the categorization will be determined whether or not a subproject has potential adverse impacts on ethnic minority communities. The degree of impact is determined by evaluating (i) the magnitude of the impact on ethnic minority customary rights of use and access to land and natural resources; socioeconomic status; cultural and communal integrity; health, education, livelihood systems, and social security status; or indigenous knowledge; and (ii) the vulnerability of the affected ethnic minority people or communities. Category A refers to project activities with potential significant impact on ethnic minorities. Category B refers to project activities that have impact but not significant impact on ethnic minorities. Category C refers to project activities that do not have any impact on ethnic minorities. **Category A and B are excluded from funding by SGDF.**

46. SDIHG will inform the Project representative of the applicable requirements as presented in former section (Section 2) and summarized in Table 3.4 that the Project is expected to comply with.

47. For Projects that are categorized as B or C with respect to environmental, A, B or C for involuntary resettlement and C for indigenous peoples impacts, SDIHG will advise the Project representative that:

- (i) SR 1-3 of ADB’s SPS will apply, including preparation of an Initial Environmental Examination (IEE) report and an Environmental Management Plan (EMP), a Resettlement Plan (RP); and
- (ii) The Project representative shall submit these reports to SDIHG ESMS designated staff for review.

Table 3.4 Safeguard Requirements

Risk Rating Category	Environmental Safeguards	Involuntary Resettlement (IR) Safeguards	Indigenous Peoples (IPS) Safeguards
Category A	A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. Category A project is	A proposed project is classified as Category A if it is likely to have significant involuntary resettlement impacts. A resettlement plan, including assessment of social impacts, is required in accordance with SR 2 of ADB SPS. The involuntary resettlement impacts of an ADB-supported project are considered significant if 200	A proposed project is classified as category A if it is likely to have significant impacts on Indigenous Peoples. An Indigenous Peoples Plan including assessment of social impacts is required in accordance with SR3 of ADB SPS. The significance of impacts of an ADB-supported project on

	excluded from SGDF financing.	or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating).	<p>Indigenous Peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected Indigenous Peoples community.</p> <p>Category A project is excluded from SGDF financing.</p>
Category B	<p>A proposed project is classified as Category B if its potential adverse environmental impacts are less adverse than those of Category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for Category A projects.</p> <p>Projects comply with PIAL and (i) SR 1 of the ADB SPS, including IEE preparation & submission, and (ii) compliance with national laws.</p>	<p>A proposed project is classified as Category B if it includes involuntary resettlement impacts that are not deemed significant i.e. less than 200 persons will experience major impacts.</p> <p>Projects comply with PIAL and (i) SR 2 of the ADB SPS, including RP preparation & submission, and (ii) compliance with national laws.</p>	<p>A Proposed project is classified as Category B if it is likely to have limited impacts on Indigenous Peoples.</p> <p>Projects comply with PIAL and (i) SR 3 of the ADB SPS, including IPP preparation & submission, and (ii) compliance with national laws.</p> <p>Category B project is excluded from SGDF financing.</p>
Category C	A proposed project is classified as Category C if it is likely to have minimal or no adverse	A proposed project is classified as Category C if it has no involuntary resettlement impacts, and	A proposed project is classified as Category C if it is not expected to have impacts on Indigenous

	environmental impacts, and comply with national laws and ADB's PIAL.	comply with national laws and ADB's PIAL.	Peoples, and comply with national laws and ADB's PIAL.
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48. SDIHG will record environmental and social categorization documents of all Projects to ADB with the categorization results (checklists) attached, and these reports will be included into the Annual Performance Report (as per the M&E system) and available for review by ADB Project Team and Cofinanciers during ADB Review Missions. Outlines for an environmental assessment report (or IEE) and RP are provided in Appendix 13, Appendix 14, and Appendix 15 respectively.

49. Once the safeguard categorizations are completed for the Projects, candidate Project will be screened out (excluded) or pre-selected for carrying out further applicable environmental due diligence under the ESMS. The pre-selection list of the potential Projects will be reviewed and approved by SDIHG and the pre-selected Projects will be taken forward to due diligence.

B. Due Diligence for Projects

50. Once the pre-selected Projects are identified and categorized by SDIHG, the Project will be informed on the decision and the Project will be subject to carry out further procedures of comprehensive due diligence. A due diligence report will be prepared for Projects and the results of the due diligence reports will be documented as considerations in approving the Projects. The Project companies must provide all requested information and should be able to show responsiveness with regard to the applicable environmental and social safeguards requirements.

51. For the proposed greenfield Project likely to be classified as Category B for any of their environment and A or B for IR, SDIHG will refer the Project to ADB and provide relevant information to ADB (Lead) early in its due diligence process, and submit the draft IEE report, RP, to ADB (Lead) for review before funds for the Project is disbursed. If the review finds any gaps, SDIHG advises and assists the Project company in filling such gaps and requires them to address these concerns in the appropriate safeguard document prepared for the Project. All draft RPs and IEEs will be made publicly available before ADB and Cofinanciers disbursement of funds for the Project. SDIHG shall address any corrective actions identified in the compliance audit report and report to ADB (Lead) thereon.

52. For a greenfield Project, due diligence work will include reviewing IEE reports and approvals (if available), other supporting documents, site visits, information confirmation and additional information/ data collection and verification. If a greenfield subproject is identified as medium or high in preliminary climate risks screening, a CRVA also needs to be prepared.

53. At the due diligence stage, ESMS designated staff at SDIHG will provide the information request list and sample survey questionnaire that can be used by the pre-selected Projects to conduct meaningful public consultation (**Appendix 8**). If a Project is categorized as B Environment or A or B for involuntary resettlement, at least one meaningful public consultation needs to be performed and recorded in due diligence report.

54. If the pre-selected Projects involve existing facilities, due diligence will require environmental and social compliance audits including on-site assessment to identify past or present concerns related to impacts on the environment and IR. The audit aims to determine the existence of any areas where the facilities of the Projects may cause or is causing risks or negative impacts to the

environment, workers, and local communities. The audit will cover all existing Project components, associated facilities integral to the operations of the SGDF-funded Project, all land acquisition and resettlement undertaken for the Project facilities. Information provided at screening and categorization stage should be sufficient for due diligence of category C existing facilities, hence no further environmental audits requirement. The facilities will be required to provide additional information as specified in **Appendix 7**.

55. The objective of the compliance audit is to determine whether actions were in accordance with ADB's SPS and SR 1-3 and to identify and plan appropriate measures to address outstanding compliance issues. Where non-compliance is identified, the audit report and the Corrective Action Plan (CAP), including a RP, will be prepared by the Project company and submitted to SDIHG and ADB prior to disbursement for the Project. The plan will define necessary remedial actions, the budget for such actions, and the time frame for resolution of noncompliance. The audit report (including CAP, if any) will be made available to the public in accordance with the information disclosure requirements of SR 1-3 of ADB's SPS. SDIHG will submit the audit report to ADB to disclose on ADB's website prior to SGDF disbursement of funds for the Project.

56. During the environmental and social audit, the auditor will carry out a series of interviews with facility personnel, such as the plant manager, EHS manager, EHS staff and other workers at the facility, as well as other stakeholders, such as local EHS authorities including EPB(s), local environmental monitoring stations, and nearby residences and businesses, if needed. EHS and other social concerns, such as local community concerns will be covered in the interviews. Some sample interview questions are provided in **Appendix 8**.

57. The auditor(s) will then prepare an environmental and social audit report for each facility audited. A typical environmental and social audit report includes the following major elements: (i) executive summary; (ii) facilities description, including both past and current activities; (iii) summary of national, local, and any other applicable laws, regulations, and standards; (iv) audit and site investigation procedure; (v) findings and areas of concern with supporting photos as necessary; and (vi) CAP that provides the appropriate corrective actions for each area of concern, including costs and schedule. It will also include a list of people interviewed and key supporting documents.

58. In reviewing the IEE, environmental and social audit report, and due diligence report, SDIHG ESMS staff will check the following prior to submission to SDIHG and/or to ADB: (i) all key potential social and environmental impacts and risks of the Project are identified; (ii) effective measures to avoid, minimize, mitigate, or compensate for the adverse impacts are incorporated into the CAP, EMP, Environmental monitoring plan (EMoP), PRC EIA, and/or Project design; (iii) the Project proponent/entity understands the ESMS policy principles and requirements and has the necessary commitment and capacity to manage social and environmental impacts and/or risks adequately; (iv) and meaningful consultations with affected people have been conducted and recorded in accordance with ESMS requirements.

C. Compliance Monitoring and Reporting

59. After a Project with category B for the environment is approved, the ESMS designated staff shall (i) make regular visits to the site to monitor the Project on ESMS implementation; (ii) confirm yearly that the Project is undertaking the obligations of compliance with all applicable environmental and social safeguard requirements, including the PIAL, PRC regulations, CAP,

EMP, EMoP, ESMS, and GRM; and (iii) document and promptly report to ADB (Lead) any actual or potential breach of the compliance requirements, and will work with the Project company to bring the Project back into compliance.

60. During the execution of the Project, SDIHG must notify the ADB (Lead) immediately within 36 hours if there is a major unanticipated environment and social management inconformity. Significant environmental and social management inconsistencies include: (i) has not yet resulted but is expected to result in clearly identified damage or harm or irreversible environmental or social impact; and (ii) requires expeditious corrective action and site-specific attention to prevent severe damage or irreversible environmental or social impact; or (iii) is a material misuse of Hazardous Substances.

61. As soon as reasonably practicable (and in any event within 30 days of SDIHG becoming aware of the occurrence of such event), SDIHG must provide to ADB (Lead) a CAP for review. SDIHG will diligently implement each CAP and notify ADB (Lead) when the corrective actions have been implemented. If not remedied by the time scheduled in the CAP for the completion of the remedial action, SDIHG shall notify ADB (Lead) the reason on the delay of implementation, when the scheduled time for completion of the remedial action in the CAP is reached.

62. Environmental and social performance of all Projects will be evaluated on a semi-annual basis by SDIHG during Programme implementation stage (first 5 years after loan effectiveness) and on an annual basis in the following 10 years. The benchmark for performance will be the ongoing compliance against the applicable environmental and social safeguard requirements in the Project loan agreement, IEE, audit report, GRM, applicable CAP, EMP, EMoP, ESMS, and any other safeguard documents. SDIHG will ensure that Projects prepare and submit annual environmental and social monitoring reports (**Appendix 10**) and will review and assess the Project's performance on environmental and social safeguard issues.

63. In case any environmental and/or incident related to Project activities/area during reporting period, the Project shall prepare an incident report and attach it to the environmental and social monitoring report using an incident report form (**Appendix 11**) including identification of corrective action. In the event of an unanticipated impacts or major changes in Project scope, the categorization will be reconfirmed, and it may be necessary to update the IEE, EMP, RP and prepare a CAP in accordance with ADB's SPS 2009 requirements.

64. Based on the review of the environmental and social monitoring reports for Projects prepared by the Project companies, SDIHG will prepare (i) consolidated annual environmental and social monitoring reports in English during Project implementation stage and submit them to ADB (Lead); and (ii) ESMS implementation reports annually during Project implementation stage and submit them to ADB (Lead). A template form for the ESMS implementation report is attached in **Appendix 12**.

D. Information Disclosure

65. For information disclosure, SDIHG will submit to ADB (Lead) the following documents for disclosure on ADB's website:

- (i) For category B (Environment) Projects, a full Chinese copy of the IEE;
- (ii) For category A or B (IR) Projects, a full Chinese copy of the RP;

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- (iii) Annual consolidated environmental and social monitoring reports during Project implementation stage, including environmental performance and other social issues such as community concerns and internal labor issues in English; and
 - (iv) Annual ESMS implementation reports during Project implementation stage in English.

66. SDIHG will ensure that all the Projects will provide relevant environmental and social safeguards information, including information from the above documents, in a timely manner, in an accessible place and in a form understandable to affected people, surrounding local communities, and other stakeholders before Project approval and during Project implementation.

E. Grievance Redress Mechanism

67. Public grievances will most likely relate to environmental and social issues encountered during the implementation of the Projects, both in construction and operation phases. Therefore, SDIHG needs to develop and operate the Programme level GRM to ensure a proper GRM at all levels to be established and operated, so that all complaints under the Programme will be recorded and addressed systematically. At the Project level, regardless of environmental and social categorization, all subprojects must establish the following five main steps of GRM and implement them accordingly. At the Project level, the designated ESMS staff at SDIHG will be the main focal person of the GRM and will ensure effective GRM implementation and GRM information disclosure through close cooperation and communications with Projects.

68. If any grievance was not effectively solved at the Project level, SDIHG will facilitate the development of a reasonable, effective, and satisfactory resolution. The following describes the five main steps of the Programme level GRM.

- (i) **Step 1: Resolution at Subproject Level.** If a concern arises, the affected person (AP) may try to resolve the issue of concern with the GRM designated staff at the Project or complain to the local authorities, such as local EPB. If the concern is resolved successfully by the Project, no further follow-up is required. Nonetheless, the GRM designated staff at the Project shall record any complaint and actions taken to resolve the issues and report the results to the GRM designated staff at SDIHG. If no solution is found within 15 working days or if the complainant is not satisfied with the suggested solution, proceed to Step 2.
- (ii) **Step 2: Official Complaint to SDIHG.** The AP will submit the grievance directly, or via the GRM designated staff at the Project, to the GRM designated staff at SDIHG who must assess the eligibility of the complaint, including whether Step 1 has been implemented properly, identify a solution in conjunction with the Project, and give a clear reply within 15 working days to the complainant and to the GRM designated staff at the Project with the suggested solution. The Project company shall implement the redress solution and convey the outcome to SDIHG within 7 working days.
- (iii) **Step 3: Stakeholder Meeting.** If no solution is identified or if the complainant is not satisfied with the suggested solution under Step 2, the GRM designated staff at the Project will organize, within 15 days, a multi-stakeholder meeting where all relevant stakeholders, including the complainant, the GRM designated staff at the Project or other representative(s), the GRM designated staff at SDIHG, and local EPB will be invited. The meeting will aim to find in a solution acceptable to all parties, and identify responsibilities and an action plan. The Project company will

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- implement the agreed-upon redress solution and convey the outcome to SDIHG within 7 working days.
- (iv) **Stage 4: Special consultation.** If the multi-stakeholder hearing process under Step 3 cannot resolve the complaint successfully, SDIHG in consultation with the Project company, the relevant EPBs, and ADB, will review the situation and attempt to develop an alternative approach to resolve the complaint within 15 working days.
 - (v) **Step 5: Large Scale Stakeholder Meeting.** If the complainant is not satisfied with the suggested solution under Step 4, the Project company, SDIHG, relevant EPBs, and other local government authorities, shall organize another multi-stakeholder hearing process within 15 days and shall find a solution acceptable to all parties. Based on the agreement, an action plan shall be developed and implemented by the subproject company within the agreed timeframe.

69. The GRM designated staff at the Project company and SDIHG shall accept the complaints/grievances lodged by the APs free of charge. Any cost incurred in dealing with a complaint/grievance should be covered by the Project. The grievance procedures will remain valid throughout the duration of subproject construction and until Project closure.

IV. INSTITUTIONAL RESPONSIBILITY, STAFFING AND TRAINING

A. Organization and responsibilities

70. SDIHG will exercise fiduciary oversight over the Programme and ensure adequate resources are available to undertake environmental and social management on all Projects.

71. The ESMS designated staff) at SDIHG will (i) oversee environmental and social issues on all Projects, (ii) undertake or ensure adequate resources are made available for undertaking environmental and social screening, categorization and due diligence on all Projects, including requirements for environmental audit / IEE and development of Project specific CAP, EMP, EMoP, ESMS, and GRM, and submit the required information to ADB as applicable; (iii) undertake or ensure adequate resources are made available for undertaking supervision and monitoring of environmental and social management performance of all Projects, including Project specific CAP, EMP, EMoP, ESMS, and GRM, as applicable; (iv) ensure all the Projects fulfill environmental and social monitoring requirements; (v) consolidate Projects' environmental and social monitoring reports and submit them to ADB in a timely manner; and (vi) prepare and submit annual ESMS implementation reports in English to ADB during the Project implementation stage. SDIHG shall ensure that ADB is notified if and when the responsible staff has been changed or replaced with new staff. Only suitably qualified and experienced staff shall be appointed as the ESMS staff.

B. Capacity and resources

73. Staffing. An ESMS full-time staff will be established at SDIHG. The ESMS staff will draw on SDIHG resources and the technical assistance program as required by the work load to provide technical support to the ESMS staff at SDIHG so that the ESMS can be fully operational before the first disbursement of ADB and Cofinanciers loan. Training on ADB SPS 2009 and the ESMS requirements are conducted by the ADB safeguard specialist and consultants during the preparation and implementation. Additional training and workshops can be organized at any time at the request of SDIHG.

74. SDIHG will maintain a pool of qualified environmental and social consultants who can be called upon to assist in conducting environmental audit, preparing IEE, conducting environmental and social reviews including conducting due diligence on the past land acquisition and involuntary resettlement and/or trainings, as appropriate.

75. Tasks for ESMS Staff. ESMS staff at SDIHG will provide professional environmental and social services and to: (i) screen potential subprojects to be financed by the SGDF; (ii) review and evaluate the Projects against the ADB's SPS 2009; (iii) conduct site visits and perform environmental and social due diligence; (iv) conduct environmental and social training; and (v) monitor environmental and social performance and prepare reports. The specific tasks are outlined in the following paragraphs.

76. At the Project identification stage, SDIHG ESMS Staff will review the REA of the likely environmental and social impacts using the environmental and social assessment checklist submitted by Project companies, including a checklist for preliminary climate risk screening.

77. SDIHG ESMS Staff will conduct preliminary environmental and social due diligence during the initial site visit of each Project and specifically perform the following:

- (i) confirm the information included in the checklists that could influence environmental and social categorizations
- (ii) verify that the Project has proper domestic approval(s) covering its entire production lines within its premise;
- (iii) identify potential operational EHS risks associated with the operational practices observed at the facilities as related to the Project;
- (iv) conduct brief environmental and social consultation through interviews with employees, local residents and/or local environmental authorities including the EPB;
- (v) confirm boundaries of potential adverse impacts, particularly in respect of environmental receptors as related to the Project; and
- (vi) revise the initial assessment provided by the Project if necessary.

77. SDIHG ESMS Staff will prepare environmental categorization using the ADB's categorization system for each Project and submit it to ADB. A potential Project's category is determined by the category of its most environmentally and socially sensitive component, including direct, indirect, cumulative, and induced impacts in the subproject's area of influence.

78. **Estimated ESMS implementation budget.** The ADB loan is expected to be paid within 20 years. The estimated costs for implementing ESMS during construction phase as well as operation phase are summarized in Table V-1.

79. **Training.** The ESMS designated staff at SDIHG, and Projects will take a series of capacity building measures before the first disbursement of ADB and Cofinanciers loan. In addition, ADB's environment safeguard specialist together with social safeguard specialist have provided training on environment and social safeguard screening process after loan negotiation and more training will be provided before the first disbursement of ADB and Cofinanciers loan. Future Project companies will take these training courses before the first disbursement. The training on ESMS and occupational health and safety management systems is essential. Table V-2 presents the training program on environmental and social management and associated costs.

Table V-1: Estimated Budget for Implementing ESMS

No.	EMP Item	Unit	Unit Cost	Category B		Category C		Sub-total
				No of units	Cost	No of units	Cost	
<u>Implementation phase</u>								
Mitigation Measures				Included in the EA budget				
Independent Environmental								
1	Monitoring	6-month	\$3,000					
2	Training	Program	\$4,000					
3	Public Consultation	Survey	\$2,000					
4	Compliance Audit		\$4,000					
Environmental Due								
5	Diligence		\$4,000					
<i>Subtotal</i>								

6th–20th years

	Mitigation Measures	Annual Cost	Included in the EA budget
	Independent Environmental		
1	Monitoring	Quarterly \$3,000	
2	Training	Program \$4,000	
3	Public Consultation	Survey \$2,000	
	Compliance		
4	Assessment	Program \$4,000	
	<i>Subtotal</i>		

Contingency

Total

Table V-2: Capacity building training on environmental and social management (To be discussed and confirmed at Loan Fact Finding Mission July 2018)

Training Topic	Trainer	Attendee	Contents	Time s	Period (days) per time	# of Persons per time	Budget (USD)	Source of Funds
ADB Safeguard Training	ADB environment specialist, ADB consultant	SDIHG, ESMS Staff Subproject companies (Note: All subprojects must receive this training prior to subproject implementation)	<p>ADB and PRC EHS laws, regulations and policies</p> <ul style="list-style-type: none"> The project's ESMS policy and requirements including links to ADB's SPS (2009), policy principles, policy delivery process, environmental and social safeguard requirements, and others, Subproject categorization and requirements of IEE Environmental and social due diligence and compliance audit Fund applicable PRC EHS laws, policies, standards and regulations International environmental, health and safety management practice in civil constructions including World Bank EHS Guidelines <p>GRM</p> <ul style="list-style-type: none"> GRM structure, responsibilities, and timeframe Types of grievances and eligibility assessment <p>Implementation of EMP and EMoP</p> <ul style="list-style-type: none"> Impacts and mitigation measures during construction, operation and decommissioning Monitoring and auditing mechanism 				<p>Course material development and course evaluation report</p> <p>Course Delivery (fees and per diem, lump sum fixed cost):</p> <p>Logistics costs for trainees</p>	ADB

Training Topic	Trainer	Attendee	Contents	Time s	Period (days) per time	# of Persons per time	Budget (USD)	Source of Funds
			<ul style="list-style-type: none"> • Reporting requirements <p>Construction phase EMP</p> <ul style="list-style-type: none"> • Implementation of Construction Phase EMP Plan • Plan descriptions • Roles and responsibilities <p>Implementation of ESMS</p> <ul style="list-style-type: none"> • ESMS objectives, contents, subproject criteria, other issues regarding ESMS 					
Total								

APPENDIX 1. LIST OF APPLICABLE NATIONAL ENVIRONMENTAL, HEALTH AND SAFETY REGULATIONS

Category	Title of Regulation	Regulator	Edition
Constructi on Projects	Labor Law (2008)	Standing Committee of National People's Congress	2008, revised in Sep 2009
	Rules on the Labor Protection of Female Staff (2012)	State Council	2012
	Rules on the Types of Work Prohibited for Women (1990)	Ministry of Labor and Social Security (now Ministry of Human Resources and Social Security)	1990
	Classification of Intensity of Physical Work (GB3869-1997)	State Bureau of Technical Supervision	1997
	Law on Production Safety (2014)	Standing Committee of National People's Congress	2014
	Safety Signs and Guideline for the Use (GB2894-2008)	General Administration of Quality Supervision, Inspection and Quarantine and the Standardization Administration	2008
	Regulation on the Safety Supervision of Special Equipment (2009)	State Council	2009
	Interim Provisions for Supervising and Administrating the Occupational Health at the Workplace (2009)	State Administration of Work Safety	2009
	Regulation on the Management of Construction Projects (2000)	State Council	2000
Occupatio nal noise	Norms on Hearing Protection for Workers at Industrial Facilities (1999)	Ministry of Health	1999
Electricity	Rules of Electrical Safety Management (1986)	Ministry of Machinery Industry	1986
	General Guide for Safety of Electric User (GB/T 13869-2008)	General Administration of Quality Supervision, Inspection and Quarantine and the Standardization Administration	2008
Emergenc y	Guidelines for Enterprises to Develop Emergency Response Plan for Work Place Accidents (GB/T 29639-2013)	State Administration of Work Safety	2013
	Rules of Reporting and Investigation of Work Place Accidents (2007)	State Council	2007
	Interim Rules on Inspection and Removal of Potential Risks of Work Place Accidents (2007)	State Administration of Work Safety	2007

Category	Title of Regulation	Regulator	Edition
	Measures for the Administration of Emergency Response Plans (2013)	State Administration of Work Safety	2013
	Provisions on Radioactive Accidents (2001)	Ministry of Health and Ministry of Public Security	2001
Fire Protection	Fire Safety Signs (GB13495-1992)	State Bureau of Technical Supervision	1992
	Provisions on Safety for Workplaces with Explosion Risks (1995)	Labor Department	1995
	Firefighting Surveillance and Inspection Rules for Building Construction (2012)	Ministry of Public Security	2012
	Maintenance for Fire Equipment in Building (GA 587-2005)	Ministry of Public Security	2005
	Provisions of Fire Prevention in Building Design (GB 50016-2014)	Ministry of Construction and General Administration of Quality Supervision, Inspection and Quarantine	2014
	Fire Prevention Technology Requirements for Residential, Production, Operation or Storage Mixed-Use Areas (GA 703-2007)	Ministry of Public Security	2007
	Safety Regulation for Dust Explosion Prevention (GB 15577-2007)	General Administration of Quality Supervision, Inspection and Quarantine and Standardization Administration	2007
	Code for Acceptance and Inspection of Extinguisher Distribution in Buildings (GB 50444-2008)	Ministry of Housing and Urban-Rural Development	2008
Hygiene standards	Hygienic Standards for the Design of Industrial Enterprises (GBZ 1-2010)	Ministry of Health	2010
	Hygiene Standards for Domestic Drinking Water (GB 5749-2006)	Ministry of Health and Standardization Administration	2006
Insurance	Work-related Injury Insurance Regulation (2010)	State Council	2010
Lifting	Lifting Appliances Periodical Inspection Regulation (TSG Q7015-2016)	General Administration of Quality Supervision, Inspection and Quarantine	2016
	Cranes Service Administration Regulation (TSG Q5001-2009)	General Administration of Quality Supervision, Inspection and Quarantine	2009
Occupational Health and Disease	Law of Occupational Disease Prevention	Standing Committee of National People's Congress	2016
	Management Measures on Occupational Disease Diagnosis and Appraisal (2013)	Ministry of Health	2013

Category	Title of Regulation	Regulator	Edition
	Measures on Investigation of and Dealing with Occupational Diseases Risk Accidents (2002)	Ministry of Health	2002
	Measures on Occupational Health Care (2002)	Ministry of Health	2002
	Warning Signs for Occupational Disease Hazards in Workplaces (GBZ 158-2003)	Ministry of Health	2003
	Provisions on Management of Occupational Disease Hazard Classification in Construction Projects (2012)	State Administration of Work Safety	2012
Personal Protective Equipment (PPE)	Personal Fall Protection Systems (GB 6095-2009)	General Administration of Quality Supervision, Inspection and Quarantine, and Standardization Administration	2009
	Code of Practice for Selection of Personal Protective Equipment (GB/T 11651-2008)	General Administration of Quality Supervision, Inspection and Quarantine and State Standardization Administration Committee	2008
	Provisional Regulation of the Use of Personal Protective Equipment for Construction Personnel (2007)	Ministry of Construction	2007
Reporting (statutory) asbestos hazardous explosive radioactive	Basic Standards for Protection Against Ionizing Radiation and for the Safety of Radiation Sources (GB 18871-2002)	General Administration of Quality Supervision, Inspection and Quarantine and State Standardization	2002
	Provisions on Preventing Environmental Pollution Caused by Electrical Equipment Containing Polychlorinated Biphenyls (PCBs) and Related Wastes (1991)	State Environmental Protection Administration (Now Ministry of Environmental Protection) and Ministry of Energy	1991
	Control Standard on Polychlorinated Biphenyl Wastes (GB 13015-91)	State Environmental Protection Administration	
	Management Measures on Transportation Safety Permitting of Radioactive Substances (2016)	Ministry of Environmental Protection	2016
	Rule for Storage of Chemical Dangers (GB 15603-1995)	State Bureau of Technical Supervision	1995
	Regulations on the Management of the Controlled Chemicals (2011)	State Council	2011
	Provisions on Safe Use of Chemicals in Workplaces (1996)	Ministry of Labor and Ministry of Chemical Industry	1996
	Provisions on Pesticides Management in China (2017)	State Council	2017
	Management Measures on	State Administration of Work	2012

Category	Title of Regulation	Regulator	Edition
	Registration of Dangerous Chemicals (2012)	Safety	
	General Rules for Classification and Hazard Communication of Chemicals (GB 13690-2009)	General Administration of Quality Supervision, Inspection and Quarantine and State Standardization Administration	2009
Training	Notion on Safe Production Training Examination for the Principals of Production and Operating Entity, Management Personnel and Other Practitioners (2002)	State Administration of Work Safety	2002
	Provision on Safety Training for Manufacturing and Operations Facilities (2013)	State Administration of Work Safety	2013
	Management Provisions on Examining Safety Technical Training of Special Operation Personnel (2015)	State Administration of Work Safety	2015
Work equipment	Safety in Welding and Cutting (GB 9448-1999)	State Bureau of Quality and Technical Supervision	1999
	Safety Nets (GB 5725-2009)	General Administration of Quality Supervision, Inspection and Quarantine, and Standardization Administration	2009
	Technical Safety Code for Management, Operation, Inspection, and Maintenance of Hand-held Motor-operated Electric Tools (GB/T 3787-2006)	General Administration of Quality Supervision, Inspection and Quarantine, and Standardization Administration	2006
	Safety of Hand-held Motor-operated Electric Tools-Part 1: General Requirements (GB 3883.1-2005)	General Administration of Quality Supervision, Inspection and Quarantine and Standardization Administration	2005
	Safety of Transportable Motor-operated Electric Tools-Part 2: Particular Requirements for Bench Grinders (GB 13960.5-2008)	General Administration of Quality Supervision, Inspection and Quarantine and Standardization Administration	2008
Workplace and welfare	Labor Protection Regulations for Workplaces Where Toxic Substances are Used (2002)	State Council	2002
General Environmental	Law of the People's Republic of China on Environmental Impact Assessment (2016)	Standing Committee of the National People's Congress	2016
	Law of the People's Republic of China on Environmental Protection (2015)	Standing Committee of the National People's Congress	2015
	Law of the People's Republic of China on Land Management (1986; last amended 2004)	Standing Committee of the National People's Congress	2004

Category	Title of Regulation	Regulator	Edition
	Environmental Protection Management Measures for Electromagnetic Radiation (1997)	State Environmental Protection Administration	1997
	Measures for the Disclosure of Environmental Information (Trial Implementation) (2007)	Ministry of Environmental Protection	2007
	Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise	Standing Committee of the National People's Congress	1997
	Management Measures on Automatic Monitoring and Inspection of Pollution Sources (2005)	Ministry of Environmental Protection	2005
	Measures on Management of Pollution Sources Monitoring (1999)	State Environmental Protection Administration	1999
Water	Law of the People's Republic of China on Water (1988; last amended 2016)	Standing Committee of the National People's Congress	2016
	Provisions on the Administration of the Prevention and Control of Pollution in the Protected Zones of Drinking Water Sources (2010)	Ministry of Environmental Protection	2010
	Management Measures on the Monitoring of Pollutant Discharge Outlets Entering Rivers (2004)	Ministry of Water Resources	2004
	Management Regulations for Water Extraction Permitting and Collection of Water Resource Fees (2006)	State Council	2006
	Management Measures on Handling of Water Pollution Within a Specified Period (Trial Implementation) (2009)	Ministry of Environmental Protection	2009
	Integrated Wastewater Discharge Standard (GB 8978-1996) (GB 18466-2005, GB 20426-2006, GB 20425-2006 partly replace GB 8978-1996)	State Environmental Protection Administration	1996
	Technical Guidelines for Environmental Impact Assessment—Groundwater Environment (HJ 610-2016)	Ministry of Environmental Protection	2016
	Quality Standard for Groundwater (GB/T 14848-93, last amended 2014)	State Bureau of Technical Supervision	2014
	Wastewater Quality Standards for Discharge to Municipal Sewers (GB/T 31962-2015)	State Environmental Protection Administration and General Administration of Quality Supervision, Inspection and	2015

Category	Title of Regulation	Regulator	Edition
		Quarantine	
	Environmental Quality Standard for Surface Water (GB 3838-2002)	State Environmental Protection Administration and General Administration of Quality Supervision, Inspection and Quarantine	2002
	Law on Prevention and Control of Water Pollution (1984; last amended 2008)	Standing Committee of the National People's Congress	2008
	Implementing Rules of the Law on the Prevention and Control of Water Pollution (2000)	State Council	2000
	Discharge standard of pollutants for livestock and poultry breeding (GB 18596-2001)	Ministry of Environmental Protection	2001
	Discharge standard of pollutants for municipal wastewater treatment plant (GB18918-2002)	Ministry of Environmental Protection	2002
	Discharge standard of water pollutants for iron and steel industry (GB 13456-2012)	Ministry of Environmental Protection	2012
	Air	Measures on the Administration of Urban Smoke-Dust Controlling Zones (1987)	Environmental Protection Committee of the State Council
Law of the People's Republic of China on the Prevention and Control of Air Pollution (1987; last amended 2015)		Standing Committee of the National People's Congress	2015
Management Regulations on ODS (2010)		State Council	2010
Emission Standards for Odor Pollutants (GB 14554-1993)		State Environmental Protection Administration	1993
Integrated Emission Standard for Air Pollutants (GB 16297-1996)		State Environmental Protection Administration	1996
Technical Guidelines for Fugitive Emission Monitoring of Air Pollutants (HJ/T 55-2000)		State Environmental Protection Administration	2000
Ambient Air Quality Standard (GB 3095-2012) (last amended 2012)		Ministry of Environmental Protection and General Administration of Quality Supervision, Inspection and Quarantine	2012
Emission standard of pollutants for coking chemical industry (GB 16171-2012)		Ministry of Environmental Protection	2012
Emission standard of air pollutants for boiler (GB 13271-2014)		Ministry of Environmental Protection	2014

Category	Title of Regulation	Regulator	Edition
	Emission standard of pollutants for ceramics industry (GB 25464-2010)	Ministry of Environmental Protection	2010
	Emission Standard of Coalbed Methane/Coal Mine Gas (on trial) (GB 21522-2008)	Ministry of Environmental Protection	2008
	Emission standard of air pollutants for industrial kiln and furnace (GB 9078-1996)	Ministry of Environmental Protection	1996
	Emission standard of pollutants for magnesium and titanium industry (GB 25468-2010/XG1-2013)	Ministry of Environmental Protection	2013
Hazardous Materials	Classification of Radioactive Waste (GB 9133-1995)	State Bureau of Technical Supervision	1995
	Management Measures on Environmental Protection from Electromagnetic Radiation (1997)	State Environmental Protection Administration	1997
	Law on the Prevention and Control of Radioactive Pollution (2003)	Standing Committee of the National People's Congress	2003
	Environmental Management Measures on New Chemical Substances (2010)	Ministry of Environmental Protection	2010
Construction Projects	Provisions on Environmental Protection Design of Construction Projects (1987)	State Planning Commission and State Council Environmental Protection Committee	1987
	Management Procedures on Environmental Protection of Construction Projects (1990)	State Environmental Protection Administration	1990
	Regulations on Management of Environmental Protection of Construction Projects (1998)	State Council	1998
	Classified Directory for Environmental Protection Management of Construction Projects (2015)	Ministry of Environmental Protection	2015
Emergency Planning	Interim Provision on Management of Emergency Plan for Abrupt Environmental Accidents (2015)	Ministry of Environmental Protection	2015
Energy Efficiency	Interim Measures of Energy Conservation Assessment and Audit for Capital Asset Investment Projects (2010)	National Development and Reform Commission	2010
	Law of the People's Republic of China on Energy Conservation (last amended 2016)	Standing Committee of the National People's Congress	2016
	Measures on Supervision and Management of Energy Conservation of Specialized Equipment with High Energy	General Administration of Quality Supervision, Inspection and Quarantine	2009

Category	Title of Regulation	Regulator	Edition
	Consumption (2009)		
Waste	Circular Economy Promotion Law of the People's Republic of China (2009)	Standing Committee of the National People's Congress	2009
	Law on the Prevention and Control of Environmental Pollution by Solid Wastes (2016)	Standing Committee of the National People's Congress	2016
	Measures on the Administration of Hazardous Wastes Operating License (2004)	State Council	2004
	Management Measures on Environmental Pollution Prevention and Control of Electronic Wastes (2007)	State Environmental Protection Administration	2007
	National Catalogue of Hazardous Wastes (2016)	Ministry of Environmental Protection	2016
	Measures on the Management of Hazardous Waste Manifests (1999)	State Environmental Protection Administration	1999
	Standard for Pollution Control on Hazardous Waste Storage (GB 18597-2001) (last amended 2013)	Ministry of Environmental Protection	2013
	Standard for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes (GB 18599-2001) (last amended 2013)	Ministry of Environmental Protection	2013
	Management Measures on Environmental Pollution Prevention and Control of Electronic Wastes (2007)	State Environmental Protection Administration	2007
	Waste Electrical and Electronic Product Disposal and Recycling Management Regulations (2009)	State Council	2009

APPENDIX 2. ASIAN DEVELOPMENT BANK PROHIBITED INVESTMENT ACTIVITIES LIST

The following do not qualify for Asian Development Bank financing:

- (i) production or activities involving harmful or exploitative forms of forced labor¹ or child labor²;
- (ii) production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phase outs or bans, such as (a) pharmaceuticals,³ pesticides, and herbicides,⁴ (b) ozone-depleting substances,⁵ (c) polychlorinated biphenyls⁶ and other hazardous chemicals,⁷ (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora,⁸ and (e) transboundary trade in waste or waste products;⁹
- (iii) production of or trade in weapons and munitions, including paramilitary materials;
- (iv) production of or trade in alcoholic beverages, excluding beer and wine;¹⁰
- (v) production of or trade in tobacco;¹⁰
- (vi) gambling, casinos, and equivalent enterprises;¹⁰
- (vii) production of or trade in radioactive materials,¹¹ including nuclear reactors and components thereof;
- (viii) production of, trade in, or use of unbonded asbestos fibers;¹²
- (ix) commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
- (x) marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

¹ Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

² Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).

³ A list of pharmaceutical products subject to phaseouts or bans is available at <http://www.who.int>.

⁴ A list of pesticides and herbicides subject to phaseouts or bans is available at <http://www.pic.int>.

⁵ A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at <http://www.unep.org/ozone/montreal.shtml>.

⁶ A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.

⁷ A list of hazardous chemicals is available at <http://www.pic.int>.

⁸ A list is available at <http://www.cites.org>.

⁹ As defined by the Basel Convention; see <http://www.basel.int>.

¹⁰ This does not apply to project sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a project sponsor's primary operations.

¹¹ This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.

¹² This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

APPENDIX 3. ADB SAFEGUARDS POLICY STATEMENT

ADB's Safeguard Policy Statement (2009) can be downloaded from the following link:
<https://www.adb.org/documents/safeguard-policy-statement?ref=site/safeguards/main>

The Chinese version of the Safeguard Policy Statement (2009) can be downloaded from the following link:
<https://www.adb.org/zh/documents/safeguard-policy-statement>

APPENDIX 4. ENVIRONMENTAL SAFEGUARD SCREENING CHECKLISTS

1. SAMPLE RAPID ENVIRONMENTAL ASSESSMENT CHECKLIST¹

Instructions:

(i) The subproject shall complete this checklist to support the environmental classification of the subproject.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the “without mitigation” case. The purpose is to identify potential impacts. Use the “remarks” section to discuss any anticipated mitigation measures.

Subproject Title:

(General)

Screening Questions	Yes	No	Remarks
A. SUBPROJECT SITING			
Is the subproject area adjacent to or within any of the following environmentally sensitive areas? (Identify environmentally sensitive areas within the area of influence of the subproject area and state distance to subproject area)			
1) Environmental protection zone			
2) Cultural heritage site			
3) Legally Protected Area			
4) Wetland			
5) Mangrove			
6) Estuarine			
7) Coast			
8) Mountain			
9) Forest			
10) Buffer zone of legally protected area			

¹ Sector-specific REA checklists will be provided to SDIHG ESMS manager, staff and SDIHG specialists.

Screening Questions	Yes	No	Remarks
11) Special area for protecting biodiversity			
12) Areas with high biodiversity value (critical habitat)			
13) Densely populated area			
14) Locale in which ambient quality standards are already exceeded			
B. POTENTIAL ENVIRONMENTAL IMPACTS Will the subproject cause...			
15) impairment of historical/cultural monuments/areas, and loss/damage to these sites?			
16) disfiguration of landscape or potential loss/damage to physical cultural resources?			
17) disturbance to precious ecology (e.g. sensitive or protected areas)?			
18) degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?			
19) interference with other utilities and blocking access to buildings; nuisance areas due to noise and odor?			
20) dislocation or involuntary resettlement of people?			
21) disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
22) air pollution resulting from emissions of hydrocarbons or other pollutants from process equipment, fugitive emissions, venting or flaring, accidents, inadequate equipment maintenance, and poor planning?			
23) dangers to a safe and healthy working environment due to physical, chemical, biological, and radiological hazards during subproject construction and operation?			

Screening Questions	Yes	No	Remarks
24) noise and dust from construction activities or operation?			
25) air pollution resulting from emissions from production process, accidents, and poor equipment maintenance?			
26) pollution of water bodies and aquatic ecosystem resulting from chemical spillage, process wastewater, production wastes, utility operations, sanitary sewage, and miscellaneous discharges?			
27) contamination of soil and groundwater from chemical spillage, solid wastes from water treatment sludges, cafeteria or lunchroom wastes, ashes and incineration residues, etc.?			
28) large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
29) social conflicts if workers from other regions or countries are hired?			
30) risks to community health and safety during construction and operation caused by chemical spills, from road accidents and possible groundwater contamination?			
31) risks to community health and safety (e.g. from fire, explosion or chemical leak) due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?			

Screening Questions	Yes	No	Remarks
32) community safety risks due to both accidental and natural hazards, especially where the structural elements or components of these are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			

2. SUBPROJECT DESCRIPTION AND ENVIRONMENTAL CATEGORIZATION

Subproject Title:

Detailed Subproject Description:

Overall conclusion on Environment Category (circle one):

A B C

Reason for conclusion:

Notes:

Prepared by: _____ (Project)

Date: _____

Reviewed by: _____ (SDIHG ESMS Staff)

Date:

Endorsed by: _____ (SDIHG Fund Manager)

Date: _____

A Checklist for Preliminary Climate Risk Screening

Subproject Title: _____

Screening Questions		Score	Remarks ²
Location and Design of subproject	Is siting and/or routing of the subproject (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?		
	Would the subproject design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc.)?		
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?		
Performance of subproject outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of subproject output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk subproject. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the subproject will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high-risk subproject.

Result of Initial Screening (Low, Medium, High): _____

Other Comments: _____

² If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Prepared by: _____ (Project)
 Date: _____
 Reviewed by: _____ (SDIHG ESMS Staff)
 Date: _____
 Endorsed by: _____ (SDIHG Fund Manager)
 Date: _____

APPENDIX 5. SOCIAL SAFEGUARD SCREENING CHECKLISTS

1. Land Acquisition and Involuntary Resettlement Impact Pre-Screening Checklist

Date: _____

A. Subproject Data				
Subproject Title _____				
Probable Involuntary Resettlement Effects	Yes	No	Instruction	Remarks
B. Involuntary Acquisition of Land				
1. Will there be land acquisition?			If "Yes" in any of question 1 to 4, the project is NOT eligible for financing.	
2. Will there be residential house demolition causing loss of shelter to people/workers due to land acquisition or construction activities?				
3. Will there be any temporary occupation of land that affects the land, housing, assets or livelihoods/business of people.				
4. Will there be restrictions on land use or access to common properties (e.g. environmental buffer zone)?				

5. Has the land been acquired recently (within 2 years)?			If “Yes”, please go to below question B-6. If “No”, the project will be category C, and can be eligible for the potential financing.	
B. Outstanding issue on Acquired Land and Involuntary Resettlement within 2 years				
6. Is there any outstanding issue (e.g. outstanding payment of compensation, complains from affected people and/or communities)			If “Yes, please conduct due diligence following “Guidance for Information and Data Collection, and Report Outline for Land Acquisition and Resettlement Due Diligence Report”. If “No”, the project is category C, and can be eligible for the potential financing.	

Prepared by:

Name and Position: _____

Date: _____

Overall conclusion on Involuntary Resettlement Category (circle one):

NOT C C

1.Ethnic Minorities Impact Pre-Screening Checklist

Date: _____

A. Subproject Data				
Subproject Title				
KEY CONCERNS (Please provide elaborations on the Remarks column, if necessary)	YES	NO	Instruction	Remarks
B. Ethnic Minorities Identification				
Prepared by:				
Name and Position				
Date:				

Overall conclusion on Indigenous Peoples Category (circle one):

NOT C C

2. Guidance for Information and data collection, and report outline for a Land Acquisition and Resettlement Due Diligence Report (DDR). – (prior impacts within 2 years)

1) Project impact on land acquisition

- amount of land acquisition, affected village, number of affected household and person
- amount of residential house demolition, affected village and displaced household and person
- amount of non-residential house demolition, including institute, enterprise and small shop
- affected vulnerable group (including include non-registered persons and non-registered property)
- affected facilities and ground attachment

2) Implementation of land acquisition, housing demolition and resettlement

- Institutional structure - including organization, staff and their responsibilities, and contacts
- Detail schemes and procedures of land acquisition and housing demolition
- Commencement and completion dates of land acquisition, housing demolition, and resettlement
- Information disclosure (including notices for land acquisition, housing demolition, and resettlement, public hearing, (if any)
- Grievances and redress procedures
- Resettlement cost and its composition
- Disbursement of compensation and procedures
- Issues and complaints from affected people during implementation, and any outstanding issues/complaints

3) Relevant laws and regulations for Land Acquisition, Housing Demolition and resettlement:

- Policies for land acquisition, housing demolition and resettlement of the project

A. Others

- Samples of land acquisition agreement, housing demolition agreement
- Official documents, including approval of project, land use pre-examination and approval of land use by land resource department
- Any documents of land acquisition and resettlement progress monitoring and reporting

Outline of Land Acquisition and Resettlement Due Diligence Report

- 1 SUMMARY
 - 1.1 Background
 - 1.2 Resettlement Due Diligence
 - 1.2.1 Methodology
 - 1.2.2 Scope
- 2 RESETTLEMENT IMPLEMENTING ORGANIZATION
 - 2.1 Organization
 - 2.2 Capacity of Organization
 - 2.3 Conclusion
- 3 RESETTLEMENT POLICIES AND COMPENSATION RATES
 - 3.1 Policy Framework (Land and House)
 - 3.2 Compensation Policy and Rates
 - 3.3 Conclusion
- 4 LAND ACQUISITION, HOUSING DEMOLITION AND RESETTLEMENT IMPLEMENTATION
 - 4.1 Land Acquisition Impacts and Analysis
 - 4.2 Land Acquisition and Resettlement Plan/Schemes and Implementation Steps and Timing
 - 4.3 Housing Demolition and Relocation Plan/Schemes and Implementation Steps and Timing
 - 4.4 Resettlement Cost and Disbursement of Resettlement Funds
 - 4.4.1 Resettlement compensation
 - 4.4.2 Disbursement Process
 - 4.4.3 Compensation Payment
 - 4.5 Conclusion
- 5 INFORMATION DISCLOSURE AND GRIEVANCE REDRESS
 - 5.1 Information Disclosure and Consultation
 - 5.2 Grievance Redress
 - 5.3 Evaluation
- 6 CONCLUSIONS
 - 6.1 Summary of Evaluations
 - 6.2 Outstanding Issue (if applicable)
 - 6.3 Complaints from Affected People (if applicable)
 - 6.4 Corrective Actions to Resolve Outstanding Issue and Complain from Affected People (if applicable)

APPENDICES (local regulations/standards; maps; photos; census of affected household

APPENDIX 6. ADB IEE REQUIREMENTS

1. Each subproject applies for a loan under the Project will need to prepare environmental impact assessment (EIA) in accordance with the People's Republic of China's (PRC) EIA laws and regulations and all subprojects must obtain relevant approvals according to these laws and regulations. This Appendix of the environmental and social management system (ESMS) summarizes the specific requirements for initial environmental examination (IEE) report per Asian Development Bank's (ADB) Safeguard Policy Statement (SPS) 2009 requirements. As described in the ESMS, an IEE report will be required for all environment category B subprojects. The level of detail and comprehensiveness of the IEE is commensurate with the significance of potential environmental and social (community and occupational health and safety) impacts and risks of the proposed subprojects. A typical IEE report contains the following major elements, and it may have a narrower scope depending on the nature of the subproject.

A Executive Summary

2. This section describes concisely the critical facts, significant findings, and recommended actions in the IEE.

B. Policy, Legal, and Administrative Framework

3. This section discusses the PRC's national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies subproject-relevant international environmental agreements to which the PRC is a party.

C. Description of the Project

4. The proposed subproject needs to be described in this section. Its major components, ecological, social, and temporal context, including any associated facility¹ required by and for the subproject will also be included in this section. In addition, drawings and maps showing the subproject's layout and components, the subproject site, and the subproject's area of influence should be included in this section.

D. Description of the Environment

5. This section should include description of relevant physical, biological, and socioeconomic conditions (baseline data) within the study area. It also looks at current and proposed development activities within the subproject's area of influence, including those not directly connected to the project.

E. Anticipated Environmental Impacts and Mitigation Measures

6. This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media, and physical cultural resources in the subproject's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any

¹ Associated facility refers to facilities that are not funded as part of the project (funding may be provided separately by the subproject company or by third parties), and whose viability and existence depend exclusively on the subproject and whose goods or services are essential for successful operation of the subproject.

residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, trans-boundary, and cumulative impacts as appropriate.

7. When a proposed subproject involves expansion or modifications of existing activities or facilities, qualified external experts should be hired to perform a comprehensive environmental audit of the entire facility, not limited to the scope of the proposed subproject, to determine the existence of any areas where the subproject and the facility may cause or is causing environmental risks or impacts and environmental audit report should be prepared by the external experts.

F. Analysis of Alternatives

8. The environmental assessment reports prepared under the PRC EIA laws and regulations typically do not conduct analysis of alternatives, but this is required for IEE reports prepared for ADB finance. This section should examine alternatives to the proposed project site, technology, design, as well as operation in terms of their potential environmental and social (community and occupational health and safety) impacts, and the feasibility of mitigating these impacts. The no subproject alternative should be analyzed as one of the alternatives. It also states the basis for selecting the particular subproject design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

G. Information Disclosure, Consultation, and Participation

9. This section should: (i) describe the process undertaken during subproject design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders; (ii) summarize comments and concerns received from affected people and other stakeholders and how these comments have been addressed in the subproject design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during the subproject implementation.

10. If meaningful consultation has not already been conducted in accordance with the ADB's SPS 2009 for the domestic EIA, or if it has been done but SDIHG Fund Management Co. Ltd. (SDIHG)/ADB representative was not able to participate for the pre-selected subprojects, the ESMS team at SDIHG in conjunction with the pre-selected subproject company shall carry out additional meaningful consultation, as part of IEE preparation, including survey with representatives of affected communities (neighboring residents and businesses), who are located within or near the anticipated boundaries of potential adverse impacts of a subproject. A template questionnaire for the environment, health and safety (EHS) and social survey during public consultation is provided in **Appendix 9**. The results and analyses shall be included in the IEE report to be submitted to ADB for review.

H. Grievance Redress Mechanism (at Subproject Level)

11. This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

1. Objective

12. A grievance redress mechanism (GRM), consistent with the requirements of the ADB SPS 2009 and relevant PRC requirements, will be established to prevent and address community concerns, reduce risks, and assist the project to maximize environmental and social benefits. In addition to serving as a platform to resolve grievances, the GRM is designed to help achieve the following objectives: (i) open channels for effective communication, including the identification of new environmental and social (community and occupational health and safety) issues of concern arising from each subproject; (ii) demonstrate concerns about community members and their environmental well-being; and (iii) prevent and mitigate any adverse environmental impacts on communities caused by project implementation and operations. The GRM will be accessible to all members of the community.

2. Approach

13. With instruction and support from SDIHG, each subproject to be financed by the Project will establish an appropriately staffed GRM at subproject company prior to construction to deal with complaints from AP throughout implementation of each subproject, including construction and operation phases. At the subproject level, detailed steps of GRM will be provided in the subproject specific IEE. At the Fund level, the designated person at SDIHG will be the main focal person of the Fund's GRM and will ensure effective GRM implementation through close cooperation and communications with all subprojects.

14. The designated staff at subproject company will be the key contact point for AP(s) who have an issue they would like to discuss. The designated staff at subproject company will maintain a complaints database and communicate with contractors, supervision engineers, the local EPBs and other relevant local government agencies.

3. GRM Steps and Timeframe

15. Each subproject will be required to develop and implement a subproject specific GRM. Complaints and grievances should be resolved at the subproject level as much as possible. If any grievance was not effectively solved at subproject level, SDIHG, with support from specialists of SDIHG (if needed), will further facilitate the development of reasonable, effective, and satisfactory resolution of any grievance.

I. Environmental Management Plan

16. Environmental management plan (EMP) is an important part of the IEE. The EMP should include the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following four key components (with the level of detail commensurate with the subproject's impacts and risks):

1. Mitigation

17. Mitigation measures should be included in the EMP and they should:
- (i) identify and summarize anticipated significant adverse environmental impacts and risks;
 - (ii) describe each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required, together with designs, equipment descriptions, and operating procedures, as appropriate; and
 - (iii) provides links to any other mitigation plans required for the subproject.

2. Monitoring

18. Monitoring and reporting of EMP should be included in the EMP and they should:
- (i) describe monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and
 - (ii) describe monitoring and reporting procedures to ensure early detection of conditions that necessitate mitigation measures and document the progress and results of mitigation.

3. Implementation arrangements

19. The arrangements for implementing the EMP should:
- (i) specify the implementation schedule showing phasing and coordination with overall project implementation;
 - (ii) describe institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental and social (community and occupational health and safety) management and monitoring, and organizational changes; and
 - (iii) estimate capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

4. Performance indicators

20. The EMP should include desired outcomes as measurable events, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods should be described.

J. Conclusion and Recommendation

21. The last section of the EIA/IEE report should draw conclusions from the environmental assessment and provides recommendations.

APPENDIX 7. A SAMPLE LIST OF INFORMATION AND DOCUMENTS REQUIRED FOR ENVIRONMENTAL AUDIT OF EXISTING FACILITY

1. The following sample list of information is provided below to support SDIHG for the ESMS implementation, which can be modified based on the relevance to a subproject.

2. In accordance with the ADB SPS 2009, an environmental audit is required for any subproject that involves existing facilities. SDIHG with the support of ESMS Manager will perform environmental audit to determine the existence of any areas where the subproject may cause or is causing environmental and social (community and occupational health and safety) risks or impacts. The following list of information and documents need to be prepared by the subproject company prior to the environmental audit and submitted to SDIHG. The environmental audit will assess whether the subproject has sufficient capacity, institutional setup, system set-up, and sufficient resources for EHS management, including occupational and community health and safety; emergency response and management procedure, including communities' response to accidents and emergency; whether the existing facilities are fully complied with the applicable national environmental, health and safety regulations, and internally recognized EHS measures and standards, including the World Bank Group's EHS Guidelines; and others. The following comprises a checklist of relevant availability of information and documents prior to the audit visit. During the audit visit, interviews with local EPB and Environmental Monitoring Station Management who are familiar with the facility will be conducted.

Information and/or Document	Yes	No	Remarks
Location map indicating site in relation to surrounding residential and industrial properties, streams, rivers, conservation areas, etc.			
A copy of the land use permit; a summary of land use history, including the year the land is re-zoned from agricultural or residential to industrial land and the year the land is acquired by the current company.			
Summary of current site activities (including simplified process flow diagram, if available) and assess compliance with applicable environmental and social safeguard requirements			
Organizational chart indicating who is responsible for environmental matters at the facility			
General housekeeping of the premises.			
Adherence to health and safety requirements for industrial premises.			
Principal sources of energy and annual consumption			
Details of water use, including Sources of water used for industrial use, and domestic use, and drinking water (e.g. mains, well); Amount of water uses; and Amount of water discharge			
Plant layout to show locations of: <ul style="list-style-type: none"> (i) Hazardous chemicals, solvents, and oil storage, with details of storage arrangements (ii) Stacks and vents (iii) Proposed area for subproject components to 			

<p>be built;</p> <p>(iv) Buried services (pipes, drains, sewers);</p> <p>(v) Buried tanks</p> <p>(vi) Sumps and pits</p> <p>(vii) Lagoons and any points of wastewater discharge</p> <p>(viii) Onsite waste disposal areas</p> <p>(ix) Accident pools</p>			
<p>Descriptions of pollution control equipment at the facility (e.g., effluent treatment and air pollution control equipment).</p>			
<p>Planning permissions/operation permits.</p>			
<p>Details of consent agreements and licenses for:</p> <p>(i) Effluent discharges;</p> <p>(ii) Air emissions; and</p> <p>(iii) Waste disposal</p>			
<p>Copies of applicable national and local standards on ambient air, source emissions, fugitive emissions, effluent discharge standards, and specific approval conditions.</p>			
<p>Monitoring results last three years, which were produced by the facility, the regulatory authorities or by a third party on:</p> <p>Ambient air with projected areas with maximum concentrations and at nearest environmental receptors and/or downwind receptors;</p> <p>Source emissions;</p> <p>Fugitive emissions;</p> <p>Wastewater discharge before treatment and after treatment, if any,</p> <p>Noise impacts at the boundaries of the plant and at nearest environmental receptors;</p> <p>Integrity testing (underground tanks)</p> <p>Soil and groundwater testing;</p> <p>Types and amount of solid and hazardous wastes, including treatment methods;</p> <p>Records of wastes removed by contractors</p>			
<p>Correspondence with authorities relating to any environmental violations and pollution incidents (air, waste, effluent, wastes, and noise).</p>			
<p>Inventory and annual quantities used/generated of Chemicals, solvents, oils, etc. and Waste materials</p>			
<p>Details of storage arrangements:</p> <p>Volumes and contents of bulk storage tanks;</p> <p>Ages and monthly throughput of storage tanks;</p> <p>Alarms, vent pumps and cathodic protection fitted to bulk tanks; and</p> <p>documented procedures for filling and unloading bulk storage tanks.</p>			

Surveys/disposal records of polychlorinated biphenyls and asbestos.			
Records of environmental and safety incidents and remedial steps taken.			
Recent third party audit reports on EMS and OHSAS indicating any gaps with respect to environment, health, and safety requirements and recommendations on corrective actions.			
Copies of environmental impact assessment approvals, environmental emission permits (environmental acceptance approvals), production safety impact assessment report and approval/permit (if applicable), and occupational disease hazard assessment report and approval.			
Details and outcome of complaints if any (plus correspondence).			
Documented procedures and operating manuals relating to environmental matters (e.g., emergency response, spill containment, waste handling and disposal).			
Copy of domestic EIA for the proposed subproject component, if any.			

APPENDIX 8. A SAMPLE ENVIRONMENTAL, HEALTH, AND SAFETY AND SOCIAL CONSULTATION INTERVIEW QUESTIONNAIRE

1. The following sample questionnaire is provided below to support SDIHG for the ESMS implementation, which can be adjusted based on the relevance to a subproject.

2. For each of the environmental, health and safety and social areas, meaningful public consultation must be performed in accordance with the ADB's SPS 2009. Meaningful public consultation must include affected people and communities, especially including residents and businesses within 300 meters or as deemed appropriate due to the anticipated boundaries of potential adverse impacts. During the public consultation, more detailed survey and/or interviews should extend to representatives of neighboring residents/ businesses. The following is the sample questions to be asked to obtain better understanding of public concern.

<i>Note: Survey questions should not be only limited to the following sample questions</i>			
Question	Choices	Ye s	Comments
1. In your opinion, what are the major environment pollution issues in your areas?	Ambient air		
	Noise		
	Surface water		
	Ground water		
	Soil		
	Solid waste		
	Odor		
	Risks associated with chemicals and hazardous chemicals		
2. Which are the impacts to surrounding environment by [name of subproject plant] during existing production process?	Ambient air		
	Noise		
	Surface water		
	Ground water		
	Soil		
	Solid waste		
	Odor		
	Risks to community health and safety		
3. Are you satisfied with environment protection measures of [name of subproject plant]?	Very satisfied		
	Satisfied		
	Barely satisfied		
	Very disappointed		
	Do not understand		
4. Are you aware of chemical risks to the community associated with existing process of [name of subproject plant]?	Yes		
	No		
5. If any emergency, such as chemical spill, leaks, and explosion, occurs, do you know	Yes		
	No		

how to respond?			
6. Do you consider the impacts of existing production process of [name of subproject plant] to surrounding environment and your lifestyle are acceptable?	Yes		
	No		
	I do not know		
7. Before the survey, did you hear about the proposed subproject components by of [name of subproject plant]?	Yes		
	No		
8. Before the survey, did you understand environmental impacts associated with the proposed subproject components by of [name of subproject plant]?	Understand		
	Barely understand		
	Do not understand		
9. After knowing about the EIA findings, is it clear to you all the potential positive and adverse impacts of the proposed subproject components by of [name of subproject plant]?	Clearly understand		
	Somewhat understand		
	Barely understand		
	Do not understand		
10. In your opinion, what should be the most critical area that the subproject should focus on?	Exhaust air efficiency treatment		
	Controlling fugitive emissions		
	Wastewater treatment		
	Groundwater protection		
	Soil protection		
	Chemicals handling		
	Odor control		
	Make use of recyclable resources to reduce solid waste		
	Noise disturbing to residents		
	Protection for community health and safety		
	Protection to workers health and safety		
	Others		
11. Do you understand the potential adverse impacts during the construction of the proposed subproject components?	Clearly understand		
	Somewhat understand		
	Barely understand		
	Do not understand		
12. What do you think about the subproject construction? Do you think it is necessary?	Necessary		
	Barely necessary		
	Not necessary		

	It does not matter		
13. What would be the major impacts during project construction?	Noise		
	Dust		
	Solid waste		
	Traffic congestion		
	Others		
	No major impacts		
14. Without mitigation measures, do you accept anticipated construction phase impacts?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
15. After learning about mitigation measures during the construction, do you accept anticipated construction phase impacts?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
16. Do you agree with project construction after comprehensive consideration?	Yes		
	No		
	I do not know		
17. Do you understand all the anticipated environmental adverse impacts of the subproject during operation?	Clearly understand		
	Somewhat understand		
	Barely understand		
	Do not understand		
18. Do you understand all the anticipated health and safety adverse impacts of the subproject during operation?	Clearly understand		
	Somewhat understand		
	Barely understand		
	Do not understand		
19. Do you understand the proposed mitigation measures during the subproject operation?	Clearly understand		
	Somewhat understand		
	Barely understand		
	Do not understand		
20. Do you accept the impacts to ambient air quality by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
21. Do you accept the impacts to surface water quality by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
22. Do you accept the impacts to ground water quality by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
23. Do you accept the impacts to acoustic environment quality by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
24. Do you accept the impacts to solid waste pollution by this	Accept		
	Barely accept		

subproject?	Do not accept		
	Have no idea		
25. Do you accept the impacts to ecological environment by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
26. Do you accept environment, health, and safety risks caused by this subproject?	Accept		
	Barely accept		
	Do not accept		
	Have no idea		
27. What are the major concerns of this subproject	Ambient air		
	Noise		
	Surface water		
	Ground water		
	Soil		
	Solid waste		
	Odor		
	Risks associated with chemicals and hazardous chemicals		
28. Which is your top concern of this subproject?	Other concern		
	Ambient air		
	Noise		
	Surface water		
	Ground water		
	Soil		
	Solid waste		
	Odor		
29. Do you support the subproject?	Risks associated with chemicals and hazardous chemicals		
	Other concern		
	Yes		
	No		
	I do not know		

APPENDIX 9. INTERVIEW QUESTIONNAIRE WITH LOCAL ENVIRONMENTAL PROTECTION BUREAU AND ENVIRONMENTAL MONITORING STATIONS DURING ENVIRONMENTAL AUDIT

1. The following sample interview questionnaire is provided below to support SDIHG for the ESMS implementation, which can be adjusted based on the relevance to a subproject.

2. During the audit visit of existing facilities, interviews shall be conducted with local EPB and Environmental Monitoring Station staff, who are familiar with the facility. In addition, interview with a plant manager, and an EHS manager, and some workers would be necessary. The following is sample questions, but not limited to, for the interviews.

Questions	Yes/No	Additional Remarks
Environmental (Attendants:)		
(i) whether the subproject company paid pollution charges or fines/penalties for noncompliance in the last 2 years in accordance with national laws.		
(ii) whether the subproject company is exposed to potentially significant liabilities, such as those arising from known or suspected land/groundwater contamination, major accidents and incidents related to the company's past or ongoing operations.		
(iii) state further actions required/planned by the subproject, in particular actions to address any non-compliance problems and liabilities.		
(iv) whether there are complaints from the public or local communities regarding the subproject company's environmental performance		
(v) whether there are complaints from the public or local communities regarding any accidents caused by the subproject company.		
Safety (Attendants:)		
(i) whether the subproject company paid safety or fire code related fines/penalties for noncompliance in the last 2 years in accordance with national laws.		
(ii) whether the subproject company has had any major safety accidents and incidents related to the company's ongoing operations or in the past 2 years.		
(iii) state further actions/mitigation measures required/planned by the subproject, in particular actions to address any noncompliance problems and liabilities.		
(iv) whether there are complaints from the employees, public or local communities regarding the subproject company's safety performance.		
Health (Attendants:)		
(i) whether the subproject company paid occupational health related fines/penalties for non-compliance in the last two years in accordance with national laws.		
(ii) whether the subproject company has had any major		

<p>(iii)</p> <p>(iv)</p> <p>(v)</p> <p>(vi)</p>	<p>occupational health accidents and incidents related to the company's ongoing operations or in the past two years.</p> <p>state further actions/mitigation measures required/planned by the subproject, in particular actions to address any non-compliance problems and liabilities.</p> <p>Whether the facility conduct regular health exams for employees (if yes, please provide records for review).</p> <p>whether there are complaints from the employees regarding the subproject company's occupational health performance.</p> <p>Whether the subproject company involves local communities for drills</p>		
Human Resources or Plant Manager			
(i)	Would the proposed subproject create redundancy? If yes, how would you reassign or compensate the redundant workers?		
(ii)	What is the total number of employees in the facility? What is the number of female employees in the facility? What is the number of ethnic minority employees.		
(iii)	With the proposed subproject, would you tend to use more or fewer female employees?		
(iv)	How many NEW long-term job positions do you expect to create as a result of this subproject.		

**APPENDIX 10. SUGGESTED SCOPE FOR ENVIRONMENTAL AND SOCIAL
MONITORING REPORT FOR SUBPROJECT COMPANY**

Environment and Social Monitoring Report
-Reporting Period-

(Indicative Outline)

I. INTRODUCTION

1. Describe scope of report and reporting period, and overall project implementation progress.

II. EMISSION REDUCTIONS

**III. PROGRESS IN IMPLEMENTING ENVIRONMENTAL MANAGEMENT
PLAN/ENVIRONMENTAL MONITORING PLAN/ENVIRONMENTAL AND SOCIAL
MANAGEMENT SYSTEM**

**IV. COMPLIANCE WITH ADB LOAN COVENANTS AND APPLICABLE
GOVERNMENT LAWS, REGULATIONS AND REQUIREMENTS**

**V. SIGNIFICANT EVENTS OR ISSUES ENCOUNTERED, OR CHANGES IN
PROJECT SCOPE AND CORRESPONDING SAFEGUARD MEASURES
UNDERTAKEN, IF APPLICABLE (SEE ATTACHMENT TO THIS APPENDIX)**

V. SUMMARY OF MONITORING REPORT FINDINGS

VI. FOLLOW-UP ACTIONS REQUIRED (IF ANY)

VII. SUMMARY/CONCLUSION

- The report should include the name, signature, position and contact address of the person submitting the report to ADB.

Notes:

- Above outline is indicative and could be tailored-fit to the subproject.

APPENDIX 11. ENVIRONMENTAL INCIDENT REPORT FORM

	Name of Company	
Environmental Incident Report		

An environmental incident is an unexpected event that may result in harm to the environment and requires some action to minimize the impact or restore the environment. See page 2 of this form for guidance notes.

Business unit:

Subproject name: Subproject number:

Incident details	(Site manager to complete—Subproject Development Manager, Works Supervisor or Team Leader)	Incident report number
Date of incident: <input style="width: 20%;" type="text"/>	Time (24:00 format): <input style="width: 20%;" type="text"/>	(ESMS Coordinator to complete)

Exact location of the incident, including Region. (see [note 1](#))

What type of activity was the team engaged in when the incident occurred?

Who notified you of the incident? (e.g. employee, local authority, member of public):

Name and phone no. of complainant:

Nature and level of the incident

Major Minor (see [note 2](#))
 Chemical spill (incl. fuel) Air emission Noise complaint Unauthorised removal of vegetation
 Contaminated water discharged (Not muddy water) Erosion & sedimentation
 Other: (specify)

Description of the incident (see [note 3](#))

Estimated quantity, volume or area involved (include unit of measure) See pages attached

Immediate actions taken and control measures implemented (See note 4)
 See pages attached

Proposed corrective (or preventive) action (see [note 5](#))
 See pages attached

Sign	Print name	Position	Date
-------------	-------------------	-----------------	-------------

After signing, forward to senior manager for further action

Further action	Senior manager to complete—Subproject Director, Subproject Development Manager	Sign: <input style="width: 100%;" type="text"/>
Other authorities notified	(see note 6)	<input style="width: 100%;" type="text"/>

Follow up actions undertaken (see [note 7](#))
 See pages attached

Guidance Notes for Incident Reporting

Note 1: Exact location of Incident

Provide details of the location of the incident in relation to the subproject site. Include:

- (i) the name of the region.
- (ii) distances from environmentally sensitive areas (e.g., watercourses, conservation reserves).
- (iii) landmarks, cross streets, etc.

Note 2: Major or Minor Incident?

A major incident has occurred if:

- (i) material has escaped from site, or
 - (ii) clean-up requires external assistance (Fire brigade or other emergency services).
- If neither of these conditions apply, the incident is rated 'minor'.

Note 3: Description of Incident

Provide a brief, succinct, factual description of the incident including:

- (i) what happened leading up to the incident.
- (ii) the material involved (if a leak or spill).
- (iii) the estimated volume of spilled or leaked material.
- (iv) the area of land or water affected.
- (v) who was affected by the incident.

Note 4: Immediate Actions and Control Measures

Describe the actions taken immediately to minimize the impact of the incident.

Note 5: Corrective and Preventive Action

Provide details of actions implemented to clean up and remediate the affected area and actions implemented to prevent the incident from occurring again.

Note 6: Other Authorities Notified

Other authorities you might need to notify:

- (i) Fire brigade or other emergency services.
- (ii) local government if incident occurs within the local drinking water catchment area.

Note 7: Follow-up Actions

- (i) Include any actions undertaken or proposed to be undertaken as a result of the incident (e.g., additional training, purchasing new plant, using alternative materials).
- (ii) Forward a copy of the incident report to SDIHG following company management review.

**APPENDIX 12. OUTLINE OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT
SYSTEM IMPLEMENTATION REPORT**

ESMS Implementation Report

Subproject		Subproject number	
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Report prepared by		Month and year	
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Item	Details, comments
<p>Institutional Aspects: Whether there have been any changes to the ESMS, staffing of environment unit at SDIHG, budget available for ESMS implementation)</p> <p>Whether there have been any major difficulties in implementing ESMS and if so the remedial actions taken.</p>	
<p>Due diligence and/or audits undertaken during the year (List the number and type of investigations undertaken.)</p>	
<p>Exclusion of subprojects which have impacts on involuntary resettlement and ethnic minority (If there were subprojects assessed that have potential involuntary resettlement and ethnic minority impacts that were excluded from financing)</p>	
<p>Non-conformances report (NCR) and corrective actions report (CAR) Whether the subprojects regularly submit the environment and social reports and the status of compliance of subprojects with EMP and other relevant environment and social requirements.</p> <p>If there are major gaps or defects, the remedial actions taken by SDIHG.</p>	
<p>Environmental Incidents (Any incidents reported by sub borrowers, provide details)</p>	
<p>Training delivered</p>	
<p>Other environmental including health and safety or social issues (if any) (Describe any other issues arising)</p>	

APPENDIX 13 OUTLINE OF AN ENVIRONMENTAL EVALUATION REPORT

For Category A and Category B projects, it is necessary to compile a project environment evaluation report. The breadth and depth of this report should match the importance of the potential environmental impact and risks of the project concerned. An environmental impact assessment report needs to include the following main content. This outline aims to guide the compilation of environmental impact reports. Specific reports may not necessarily follow the following order.

A. Executive summary

This section presents the key factors, important survey results and recommended actions.

B. Policy, legal and administrative framework

This section discusses the national and local laws and regulations which the environmental impact assessment is based on.

C. Project profile

This section describes the project in detail, including its main components, topography, biodiversity information, social and human aspects and requirements for various project facilities (such as the site entry road, power plant, water supply, excavation and backfill, removal of slag and so on). This section should include tables and graphs to explain the overall project layout, project components, project site and surroundings.

D. Environment description (baseline data)

This section describes the relevant physical, biological, social and economic situation of the study area. It should also describe project impact on the region, including indirect impact.

E. Expected environmental impact and mitigation measures

This section forecasts and assesses the direct and indirect impact of the concerned project, positive or otherwise, and should include physical, biological, social and economic aspects (including occupational health and safety, community health and safety, disadvantaged groups and gender issues, project impact on the environment, direct impact on indigenous people's life, materialistic and cultural resources, and determining mitigation measures).

F. Optional plan analysis

This section examines optional project plans (including no project plan), such as project site selection, potential environmental impact of technical and design plans and operations, feasibility of mitigation of such impact, their capital and regular expenses, whether to be implemented locally, and their institutional, training and monitoring requirements. This section should also explain the rationale for selecting the project design, calculate emissions, and propose pollution prevention and elimination methods.

G. Information disclosure, consultation and participation This section:

- (1) Describes information regarding joint work with stakeholders in the project design and preparation stages, including information disclosure to concerned parties and consultation with affected groups.
- (2) Summarizes the opinions and concerns of affected groups and relevant parties, how to reflect these opinions in project design and mitigation measures and take into account the issues of concern to disadvantaged groups, including women, impoverished people and indigenous people.

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- (3) Introduces the planned information disclosure measures (including type of information for communication and method of communication) and measures to hold consultation with affected groups and assist their participation in the implementation process.

H. Appeal system

This section describes the appeal framework (including official and non-official channels) and sets the time limit and system for addressing complaints about environmental performance.

I. Environmental management plan

This section involves mitigation and management measures for the project implementation process so as to avoid, mitigate or remedy adverse impact on the environment. It may include various management plans and actions. It should cover the following key details (to match project impact and risks):

- (1) Mitigation:
Confirm and summarize major expected adverse environmental impact and risks. Describe the technical details of each mitigation measure, including type of impact (such as continuous or sudden), formative conditions for such impact, corresponding design and equipment description, and operational procedure.
Provide other disaster relief plans required by the concerned project (such as involuntary resettlement, indigenous people or emergency response).
- (2) Monitoring:
Describe the technical details of monitoring measures, including measured parameters, usage method, sampling site, necessity of correction and so on.
Introduce the monitoring and reporting procedures.
- (3) Implementation arrangements:
Specify an implementation timetable, and display divided implementation stages and overall project implementation coordination information.
Introduce institutional or organizational arrangements, i.e. responsible persons and participants in mitigation and monitoring measures. These may include issues relating to the strengthening of environmental management abilities: technical assistance plans and training plans and equipment procurement relating to environmental management and monitoring and changes in organizational structure.
Estimate capital and regular expenses which are needed for environmental management plan implementation, and specify sources of funding.
- (4) Performance indices: Describe achievement indices, such as performance indexes, goals, acceptable guidelines or standards which can be traced within a specified time.

J. Conclusion and recommendations

This section sums up assessment conclusions and puts forward recommendations.

APPENDIX 14 OUTLINE OF A RESETTLEMENT PLAN FOR SUBPROJECTS

A resettlement plan is required for all subprojects with involuntary resettlement impacts. Its level of detail and comprehensiveness is commensurate with the significance of potential involuntary resettlement impacts and risks. The substantive aspects of the outline will guide the preparation of the resettlement plans, although not necessarily in the order shown.

A. Executive Summary

1. This section provides a concise statement of subproject scope, key survey findings, entitlements and recommended actions.

B. Subproject Description

2. This section provides a general description of the subproject, discusses subproject components that result in land acquisition, involuntary resettlement, or both and identifies the subproject area. It also describes the alternatives considered to avoid or minimize resettlement. Includes a table with quantified data and provides a rationale for the final decision.

C. Scope of Land Acquisition and Resettlement

3. This section:

- (i) discusses the subproject's potential impacts, and includes maps of the areas or zone of impact of subproject components or activities;
- (ii) describes the scope of land acquisition (provide maps) and explains why it is necessary for the main investment subproject;
- (iii) summarizes the key effects in terms of assets acquired and displaced persons; and
- (iv) provides details of any common property resources that will be acquired.

D. Socioeconomic Information and Profile

4. This section outlines the results of the social impact assessment, the census survey, and other studies, with information and/or data disaggregated by gender, vulnerability, and other social groupings, including:

- (i) definition, identification, and enumeration of the people and communities to be affected;
- (ii) description of the likely impacts of land and asset acquisition on the people and communities affected taking social, cultural, and economic parameters into account;
- (iii) discussion of the subproject's impacts on the poor, indigenous and/or ethnic minorities, and other vulnerable groups; and
- (iv) identification of gender and resettlement impacts, and the socioeconomic situation, impacts, needs, and priorities of women.

E. Information Disclosure, Consultation, and Participation

5. This section:

- (i) identifies subproject stakeholders, especially primary stakeholders;
- (ii) describes the consultation and participation mechanisms to be used during the different stages of the subproject cycle;
- (iii) describes the activities undertaken to disseminate subproject and resettlement information during subproject design and preparation for engaging stakeholders;

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- (iv) summarizes the results of consultations with affected persons (including host communities), and discusses how concerns raised and recommendations made were addressed in the resettlement plan;
 - (v) confirms disclosure of the draft resettlement plan to affected persons and includes arrangements to disclose any subsequent plans; and
 - (vi) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for consultation with affected persons during subproject implementation.

F. Grievance Redress Mechanisms

6. This section describes mechanisms to receive and facilitate the resolution of affected persons' concerns and grievances. It explains how the procedures are accessible to affected persons and gender sensitive.

G. Legal Framework

7. This section:

- (i) describes national and local laws and regulations that apply to the subproject and identifies gaps between local laws and ADB's policy requirements; and discuss how any gaps will be addressed.
- (ii) describes the legal and policy commitments from the executing agency for all types of displaced persons;
- (iii) outlines the principles and methodologies used for determining valuations and compensation rates at replacement cost for assets, incomes, and livelihoods; and sets out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided.
- (iv) describes the land acquisition process and prepare a schedule for meeting key procedural requirements.

H. Entitlements, Assistance and Benefits

8. This section:

- (i) defines displaced persons' entitlements and eligibility, and describes all resettlement assistance measures (includes an entitlement matrix);
- (ii) specifies all assistance to vulnerable groups, including women, and other special groups; and
- (iii) outlines opportunities for affected persons to derive appropriate development benefits from the subproject.

I. Relocation of Housing and Settlements

9. This section:

- (i) describes options for relocating housing and other structures, including replacement housing, replacement cash compensation, and/or self-selection (ensure that gender concerns and support to vulnerable groups are identified);
- (ii) describes alternative relocation sites considered; community consultations conducted; and justification for selected sites, including details about location, environmental assessment of sites, and development needs;
- (iii) provides timetables for site preparation and transfer;
- (iv) describes the legal arrangements to regularize tenure and transfer titles to resettled persons;

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- (v) outlines measures to assist displaced persons with their transfer and establishment at new sites;
 - (vi) describes plans to provide civic infrastructure; and
 - (vii) explains how integration with host populations will be carried out.

J. Income Restoration and Rehabilitation

10. This section:

- (i) identifies livelihood risks and prepare disaggregated tables based on demographic data and livelihood sources;
- (ii) describes income restoration programs, including multiple options for restoring all types of livelihoods (examples include subproject benefit sharing, revenue sharing arrangements, joint stock for equity contributions such as land, discuss sustainability and safety nets);
- (iii) outlines measures to provide social safety net through social insurance and/or project special funds;
- (iv) describes special measures to support vulnerable groups;
- (v) explains gender considerations; and
- (vi) describes training programs.

K. Resettlement Budget and Financing Plan

11. This section:

- (i) provides an itemized budget for all resettlement activities, including for the resettlement unit, staff training, monitoring and evaluation, and preparation of resettlement plans during loan implementation;
- (ii) describes the flow of funds (the annual resettlement budget should show the budget-scheduled expenditure for key items);
- (iii) includes a justification for all assumptions made in calculating compensation rates and other cost estimates (taking into account both physical and cost contingencies), plus replacement costs; and
- (iv) includes information about the source of funding for the resettlement plan budget.

L. Institutional Arrangements

12. This section:

- (i) describes institutional arrangement responsibilities and mechanisms for carrying out the measures of the resettlement plan;
- (ii) includes institutional capacity building program, including technical assistance, if required;
- (iii) describes role of NGOs, if involved, and organizations of affected persons in resettlement planning and management; and
- (iv) describes how women's groups will be involved in resettlement planning and management.

M. Implementation Schedule

13. This section includes a detailed, time bound, implementation schedule for all key resettlement and rehabilitation activities. The implementation schedule should cover all aspects of resettlement activities synchronized with the subproject schedule of civil works construction, and provide land acquisition process and timeline.

N. Monitoring and Reporting

14. This section describes the mechanisms and benchmarks appropriate to the subproject for monitoring and evaluating the implementation of the resettlement plan. It specifies arrangements for participation of affected persons in the monitoring process. This section will also describe reporting procedures.