

Environmental Assessment and Review Framework

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TAJ: Climate Resilient Dairy Value Chain
Development Project

CURRENCY EQUIVALENTS

(as of 1 October 2017)

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ABBREVIATIONS

ADB	–	Asian Development Bank
EARF	–	environmental assessment and review framework
EHS	–	environmental, health and safety (guidelines)
EIA	–	environmental impact assessment
EMP	–	environmental management plan
GDP	–	gross domestic product
GEF	–	Global Environment Facility
GHG	–	greenhouse gas
GRM	–	grievance redress mechanism
IEE	–	initial environmental examination
MOA	–	Ministry of Agriculture
MOF	–	Ministry of Finance
NGO	–	nongovernment organization
PIC	–	project implementation consultants
PIG	–	project implementation group
RCP	–	representative concentration pathways
REA	–	rapid environmental assessment
SPS	–	Safeguard Policy Statement
UNFCCC	–	United Nations Framework Convention on Climate Change

NOTE

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

This environmental assessment and review framework is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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OUTPUT 1 AND OUTPUT 2 – GRANT COMPONENT

I. INTRODUCTION

1. This Environmental Assessment and Review Framework (EARF) has been developed in compliance with the provisions of ADB's Safeguard Policy Statement (SPS, 2009). The EARF (i) describes the project and its outputs, (ii) explains the general anticipated environmental impacts of the subprojects to be financed under the proposed project, (iii) specifies the requirements that will be followed related to screening and categorization of subprojects, assessment, and planning, including meaningful consultation with affected people and other stakeholders and information disclosure requirements, and (iv) specifies the environmental safeguard criteria that are to be used in selecting and/or rejecting subprojects, along with responsibilities of all parties involved. The EARF provisions shall guide the Project Implementation Group (PIG) in the Ministry of Agriculture (MOA), the project Executing Agency, in the selection, screening, categorization, and environmental assessment of expected subprojects. The preparation of environmental assessment documents for the subprojects will follow the procedures outlined in this EARF.

A. Information about the Project

2. The milk production systems in Tajikistan is dependent on low yielding cows grazed on public pasturelands resulting in overgrazing, degradation of pasture land and low productivity as suggested by the classic case of Hardin's economic theory 'the tragedy of the Commons'¹ of natural resources. The project will address the livestock sub-sectoral issue of degradation of pasturelands and market failure in the dairy industry as reflected in very low productivity of household milk producers, low capacity utilization in milk processing, and limited production of value-added dairy products. The project will support (i) the development of an enabling environment through policy reforms and strengthen institutional capacity to promote productivity and food safety, and (ii) increase access to investment finance (sub-loans) for dairy value chain enterprises. The project is expected to increase productivity and safety of dairy products. This in turn will improve food security, enhance environmental sustainability, and increase employment opportunities. The project has two main Outputs as follow:

3. **Output 1: Enabling environment and institutional capacity for dairy development strengthened.** Regulations, government institutions, and capacity of dairy value chain stakeholders will be strengthened to improve productivity, efficiency, profitability, food safety of the dairy value chain. Three main activities are: (i) reviewing key policies, laws, and regulations² constraining development of effective dairy value chains—animal health, breeding, pastureland management, and taxation on dairy industry—and developing a reforms framework for implementation; (ii) improving capacity of government institutions³ and dairy value chain stakeholders; (iii) developing dairy value chain business plans of all key stakeholders—dairy

¹ The tragedy of the commons is an economic problem in which every individual tries to reap the greatest benefit from a given common natural resource. As the demand for the resource overwhelms the supply, every individual who consumes an additional unit directly harms others who can no longer enjoy the benefits.

² The project will provide support for the review and amendment of laws and decrees: (i) Decree of the Government of the Republic of Tajikistan "On technical regulations for the safety of food products, the safety of meat and meat products, the safety of milk and dairy products", No. 190; (ii) The Law of the Republic of Tajikistan "On Veterinary" No. 674; (iii) The Law of the Republic of Tajikistan "On Livestock Breeding" No. 1020; (iv) The Law on "Pastures", № 951; and (v) Taxation on Dairy Industry (i.e., VAT, Corporate Income Tax, Import Tariff on Concentrate feed Components etc.).

³ Under output 1, there is will minor refurbishing of government buildings, \$199,000 is allocation for this activity.

farmers; private breeding, concentrate, and fodder enterprises; dairy processors, and financial institutions—to integrate them in dairy hubs.

4. **Output 2: Integrated dairy value chain hubs developed.** Detailed and participatory dairy value chain business plans, prepared under Output 1, will be financed under Output 2. Dairy value chains will be developed in specific hubs. There will be five stakeholders in a typical dairy value chain hub. Participating dairy processor (PDP) will be the nerve centre of this hub. There will be two types of farmers (household and *Dehkan*) and three types of enterprises (breeding, concentrate, and fodder) that will operate in the hub in closely knit dairy value chain. Each hub will be set up in its economic radius; within 100 km or 2-hour driving distance depending on road infrastructure. Based on milk processing capacity of PDP, milk production centers will be set up. Participating household farmers (PHF) will be organized in cooperatives (registered under the Cooperative Law 2013). Participating *Dehkan* farmers (PDF) will become dairy farmers and some will also diversify into participating fodder enterprises (PFE). Currently, PHF keep their LYCs in the backyard which are dark, unhygienic, and spread diseases. Under the project, modern dairy sheds (MDS) will be built to house HYCs of PHF. MDS will provide clean and efficient economies of scale where all necessary goods (concentrate feed and fodder) and services (veterinary, milking, marketing) will be provided in bulk. Each PHF can chose to take 2–4 HYC depending on their ability to provide equity (at least 20%).⁴ Similarly, PDF can elect to take 5–10 HYC depending on their ability to provide equity. PDP will acquire HYC through participating breeding enterprises (PBEs).⁵ The project will provide credit line to participating financial institutions (PFIs) who in turn will provide sub-loans to eligible PDPs to acquire HYCs through PBFs and provide to PHFs and PDFs. PDP will recover the cost of HYCs in milk buy-back barter contracts with PHF and PDF. Debt of HYC and MDS will be paid back in 5 years.

5. For Output 1 the project modality will be project grant as part of public sector support. As part of this Output some subprojects, which will involve civil works and are likely to have environmental impacts, are anticipated. These subprojects are related to refurbishment of existing buildings. For Output 2, along with the FI component, project grant will be financing construction of Modern Dairy Sheds (MDS) for cows.

6. Specific details of these subprojects, such as site specific and upgrading activities will be prepared after Board approval. Hence the need to prepare this EARF to ensure the subprojects implemented under this framework comply with ADB safeguard objectives, principles and requirements.

7. This EARF provides the framework to follow for Outputs 1 and 2 grant component. Part of the EARF also provides the necessary guidance for the PIG under Output 2 FI component, as the PIG will be responsible to ensure all subprojects are compliant with ADB safeguard requirements and procedures. The potential financial intermediaries (PFI) will confirm that safeguard documents have been approved by the PIG and a separate safeguard document, i.e. Environmental and Social Management System (ESMS) has been prepared for the PFI.

⁴ PHF, on average, have 3–4 cattle. One LYC is valued \$400-\$700. PHF can sell their LYC to provide equity for HYC.

⁵ Three imported HYC breeds are suitable for the Tajik climate; Holstein-Friesian, Simmental, and Brown Swiss (its milk is famous for cheese making). The landed cost in Tajikistan is \$3,000 per head. But the project will support bulk breeding program, through 'sexed' artificial insemination and embryo transplant to reproduce HYC in Tajikistan to lower their cost to about \$1,200 to \$1,500. Some breeding farms have 100-140 such HYCs for many years and they have adjusted well to local environment and climate.

B. Defined Safeguard Responsibilities

8. The following are the main responsibilities for the PIG under Outputs 1 and 2 for the project grant component:

- (i) Screening of subprojects to ensure PIAL and Category A subprojects are excluded;
- (ii) Screening of subprojects to ensure Category A for land acquisition and involuntary resettlement safeguards are excluded;
- (iii) Subprojects categorization according to ADB safeguard requirements (for Category B and Category C subprojects for environment);
- (iv) Prepare safeguard documents according to ADB safeguard requirements, and get ADB clearance before public disclosure by ADB and PIG;
- (v) In the case of unpredicted environmental impacts occurring during subprojects processing or implementation, immediately notify ADB, and prepare a corrective action plan;
- (vi) Update screening checklists, categorization and safeguard documents if there are changes in scope, which must be prior approved by ADB;
- (vii) Monitor subprojects during implementation stage; and
- (viii) Submit bi-annual monitoring reports to ADB.

II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

A. Overall Legal Framework of Tajikistan

9. Environmental legislation in Tajikistan includes the Constitution, codes and laws on air quality, noise, mineral resources, land management, forests, health and safety, waste and chemicals management. In July 2017, the new Law “On Environmental Impact Assessment” was approved by the President of the Republic of Tajikistan, which establishes four new categories: A, B, V, G. However, the definitions of these categories do not directly correspond or somehow interrelate to ADB’s categorization system. This new law is designed to strengthen environmental safeguards.

10. At the same time, there is the Decree No. 253 of the Government of the Republic of Tajikistan in act since June 3, 2013 “On the List of Facilities and Types of Activities, for which Development of Environmental Impact Assessment Documents is Mandatory”. There are four categories of risk: I – high risk, II – medium risk, III – low risk, IV – low risk with local impact. These activities can be compared to ADB’s categorization system. However, any activity not listed in this list is not subject to impact assessment procedures as per regulations, which might create risk of omission of an actual risk.

11. These national categories can be used by PIG as a general guidance/ indicative information for performing correct categorization based on ADB approach. However, the actual/ final category of a subproject may differ from national categorization, and should be based on ADB SPS description of A, B, and C categories.

12. Other relevant environmental legal acts include:

- (i) The Law on Hydro-meteorological Activity (No. 86 as of December 2, 2002);
- (ii) The Law on Production and Safe Handling of Pesticides (No. 1 as of April 22, 2003);
- (iii) The Law on Protection and Use of Flora (No. 31 as of May 17, 2004);

- (iv) The Law on Protection of the Population and Territories from Emergency Situations of Natural and Manmade Origin (No. 53 as of 15 July 2004);
- (v) The Law on Biological Safety (No. 88 as of March 1, 2005);
- (vi) The Law on Animal World Conservation and Use (No. 354 as of January 5, 2008);
- (vii) The Law on Soils Conservation (No. 555 as of October 16, 2009);
- (viii) The Law on Subsoils (No. 983 as of July 20, 1994, wording as of RT Laws No. 120 as of November 4, 1995, No. 351 as of January 5, 2008, No. 471 as of December 31, 2008 and No. 663 as of December 29, 2010);
- (ix) The Law on Potable Water and Drinking Water Supply (No. 670 as of December 29, 2010);
- (x) The Law on Environmental Information (No. 705 as of March 25, 2011);
- (xi) The Law on Environmental Monitoring (No. 707 as of March 25, 2011);
- (xii) The Law on Environmental Audit (No. 785 as of December 26, 2011);
- (xiii) The Law on Specially Protected Natural Areas (No. 786 as of December 26, 2011);
- (xiv) The Law on Use of Renewable Energy Sources (No. 857 as of January 12, 2012);
- (xv) The Law on Food Safety (No. 890 as of August 1, 2012);
- (xvi) The Law on Atmospheric Air Protection (No. 915 as of December 28, 2012);
- (xvii) The Law on Pastures (No. 951 as of March 19, 2013);
- (xviii) The Law on Biological Management and Production (No. 1001 as of July 22, 2013);
- (xix) The Law on Ensuring Sanitary and Epidemiologic Safety of Population (No. 49 as of December 8, 2003, wording as of RT Laws No. 441 as of October 6, 2008, No. 481 as of December 31, 2008, No. 793 as of December 26, 2011 and No. 1010 as of 22.07.2013);
- (xx) The Law on Energy Conservation and Efficiency (No. 1018 as of September 19, 2013);
- (xxi) The Law on Energy Saving (No. 524 as of February 6, 2002);
- (xxii) The Law on Industrial and Domestic Waste (No. 44, as of May 10, 2002, wording of the Republic of Tajikistan Law No. 736 as of July 28, 2011); and
- (xxiii) The Law on Ensuring of Environmental Safety of the Road Transport (No. 1214 as of August 8, 2015).

13. The Republic of Tajikistan is party to a number of international environmental treaties including:

- (i) Vienna Convention for the Protection of the Ozone Layer, 1996 and updated by:
- (ii) Protocol on Substances that Deplete the Ozone Layer (Montreal), 1998;
- (iii) London Amendments to Montreal Protocol on Ozone Depleting Substances, 1998;
- (iv) Copenhagen Amendments to Montreal Protocol on Ozone Depleting Substances, 2009;
- (v) Montreal Amendments to Montreal Protocol on Ozone Depleting Substances, 2009;
- (vi) Beijing Amendments to Montreal Protocol on Ozone Depleting Substances, 2009.
- (vii) UN Convention to Combat Desertification (CCD), 1997.
- (viii) UN Convention on Biological Diversity (CBD), 1997; Related updates to CBD are:
- (ix) Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2004.
- (x) Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, signed in 2011 and ratified in 2013.
- (xi) Ramsar Convention (joined 2000);
- (xii) Bonn Convention on the Conservation of Migratory Species of Wild Animals (joined 2001);
- (xiii) Bukhara Deer Memorandum, 2002.

- (xiv) UN Framework Convention on Climate Change, 1998; A related update is:
- (xv) Kyoto Protocol, accessed on December 29, 2008, and entered into force on March 29, 2009.
- (xvi) Stockholm Convention on Persistent Organic Pollutants (ratified 2007); Related updates:
- (xvii) Aarhus Convention (joined 2001); A related update is:
- (xviii) Kiev Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, on May 21, 2003.
- (xix) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 2016.
- (xx) UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (joined 1992).

B. Public Participation

14. Article 12 of the Environment Protection Law proclaims the right of citizens to live in a favorable environment and to be protected from negative environmental impacts. Citizens also have the right to environmental information (Article 13), as well as to participate in developing, adopting, and implementing decisions related to environmental impacts (Article 13). The latter is assured by public discussion of drafts of environmentally important decisions and public ecological reviews. Public representative bodies have an obligation to take into consideration citizens' comments and suggestions.

C. Environmental Permits

15. Permits are meant to ensure the sustainable use of natural resources. There are two types of permits: (i) permits to use natural resources; and, (ii) permits for emissions or discharges. The natural resources use permits allow their holders to take a certain number or amount of a particular natural resource within a defined territory and time period. They are issued both to individuals (e.g. to hunt a particular species of animal or harvest particular factories) and to organizations (e.g. permits to extract ground or surface water for a particular use). By law, permits are needed for any commercial use of any resource. The authority that issues the permit and the legislation (government resolution) that applies depend on the resource. Permits to discharge polluted matter are issued by the relevant inspectorate (e.g. previous State Water Inspectorate or State Air Inspectorate – now departments) of the local state environmental protection committees to industrial or agricultural enterprises and municipal utilities that release by-products into the environment. The permits allow releasing a certain amount of polluted matter (gases, liquids, solid waste) into the environment. The permits are normally granted for one year and indicate the maximum allowed concentration of the pollutants in the released matter, the maximum volume of the polluted matter and the pollutants allowed.

D. Environmental Strategies

16. Tajikistan has developed a series of environment-related strategies including:
- (i) The National Development Strategy 2016–2030 outlines the country's economic development strategy with the following strategic objectives: (a) ensure energy and food security, (b) expand productive employment, and (c) promote regional connectivity.

- (ii) The Concept of Transition to Sustainable Development 2007–2030 defines implementation mechanisms for sustainable development with economic, environmental, and social solutions.
- (iii) The Concept of Environmental Protection 2009 defines major actions for implementing state policies on environmental protection and rational use of natural resources. It includes a draft action plan with a list of environmental projects and financing sources.
- (iv) The State Environmental Program 2009–2019 is a major national long-term environmental program detailing measures on environmental protection.
- (v) The National Strategy on Disaster Risk Management aims to reduce preventable damage from natural and industrial disasters.
- (vi) The National Action Plan for the Mitigation of Climate Change was adopted in 2003, following membership of UNFCCC in 1997.

17. The government's first National Communication on Climate Change was published in 2002 with the financial support from the Global Environment Facility (GEF) and UNDP. This was followed by the National Action Plan of the Republic of Tajikistan for Climate Change Mitigation, which was prepared in 2003. The second and third National Communications on Climate Change were adopted on 31 December 2008 and 29 December 2014. Within the framework of UNFCCC and the Kyoto Protocol, Tajikistan is committed to use clean and highly efficient resources in all new infrastructure, buildings and industrial plants. GEF support to Tajikistan in climate change is in line with the country's specific development plans and policies. The Kyoto Protocol provides a framework to accede to international investments through its Cleaner Development Mechanism, Climate Investment Fund and GEF funding mechanisms. The Parliament of Tajikistan ratified the Paris Agreement on 13 February 2017.

E. ADB's Requirements

18. ADB's SPS is ADB's current safeguards policy document. It describes the common objectives and policy principles of ADB's safeguards, and outlines the delivery process for ADB's safeguard policy. It promotes sustainability through protection of people and the environment from the adverse impacts of projects and supporting the strengthening of country safeguard systems. It presents a consistent, consolidated framework for environment, resettlement, and indigenous people safeguards.

19. The SPS requires borrowers to prepare appropriate safeguard documents, according to the type of project, and as required, to consult people likely to be affected by the project and disclose relevant information in a timely manner and in a form and in languages understandable to those being consulted. ADB's Safeguards Operations Manual and Safeguard Review Procedures (2013) operationalize SPS by outlining the scope of SPS, applicability to ADB operations, and safeguards process and outputs, including consultation and disclosure requirements, through the various stages of project preparation.

F. Environmental Categorization

20. ADB uses a categorization system to indicate the significance of project's potential impacts on the environment, involuntary resettlement, and indigenous peoples. Environmental categorization takes into account the nature, location, sensitivity, and scale of the project, nature and magnitude of the environmental impacts, and is based on the most environmentally sensitive component of the subproject. The relevant project's categories and their definitions are shown in Table 1.

Table1: Definition of ADB safeguards categories

Project Category	Environment	Involuntary resettlement	Indigenous people
A	The project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. Among those projects are waste-processing and disposal installations for the incineration, chemical treatment or landfill of hazardous, toxic or dangerous wastes, large-scale land reclamation, extraction of petroleum and natural gas for commercial purposes, municipal solid waste processing and disposal facilities, etc.	The project is likely to have significant involuntary resettlement impacts. The involuntary resettlement impacts of an ADB-supported project are considered significant if 200 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).	The project is likely to have significant impacts on Indigenous Peoples, which 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.
B	Project's 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. Examples of such subprojects include medium-scale road construction outside specially protected areas, medium-size manufacturing of machinery and equipment, small-scale logging, etc.	The project includes involuntary resettlement impacts that are not deemed significant.	The project is likely to have limited impacts on Indigenous Peoples, which is determined by assessing the parameters presented above.
C	The project is likely to have minimal or no adverse environmental impacts. Examples of such projects include wholesale trade, small scale manufacture of bakery and farinaceous products, processing and preserving of fruit and vegetables, assembly of furniture, transportation services, accommodation and food service activities, rental and leasing activities, information services, etc.	The project has no involuntary resettlement impacts	The project is not expected to have impacts on Indigenous Peoples

Project Category	Environment	Involuntary resettlement	Indigenous people
FI	The project involves the investment of ADB funds to, or through, a financial intermediary.		

21. Overall the current project has been categorized as B for environment.

III. ANTICIPATED ENVIRONMENTAL IMPACTS

A. Project Benefits

22. The expected benefits of the project overall are improved food security and climate resilience through dairy sector development in three regions of Tajikistan. In addition, the project will have a positive impact on household incomes and rural employment. It is envisaged that the project will support wide-scale social and economic development at local, district, regional and national levels. The project will increase the production of milk and dairy products and improve quality standards and value addition of local produce using market-based approaches for production, processing, marketing and distribution. In the environmental context, the overall project is expected to support improvement in pasture production and management, contributing to reducing levels of overgrazing and land degradation and improving income generation from pasture and livestock husbandry. The introduction of new and/or alternative sustainable land management practices will also contribute to climate resilience and disaster risk reduction.

23. A high proportion of the benefits of the project are expected to accrue to women and other vulnerable groups through improved household incomes and employment and reduced vulnerability to natural shocks associated with changes in water supply availability, flooding and droughts.

B. Anticipated Environmental Impacts and Mitigation Measures

24. Table 2 provides a summary of the anticipated environmental impacts associated with the expected subprojects under Outputs 1 and 2 (project grant component). These are indicative impacts. Actual impacts will be assessed for individual subprojects proposed for lending.

Table 2: Anticipated Environmental Impacts and Indicative Mitigation Measures

Anticipated Impacts	Indicative Mitigation Measures
<i>Output 1 – Refurbishment of existing buildings</i>	
Waste generation, including hazardous waste – improper construction and operation waste management	<ul style="list-style-type: none"> - Appropriate and licensed waste disposal facilities to be identified and used during construction, especially for lab equipment that is made redundant - Hazardous contaminated waste during operation to be properly stored and disposed at approved and licensed facilities –waste disposal guidelines to be prepared and to be placed in visible areas, with the following information: type and description of waste, storage area, treatment options and disposal methods - Waste Management Plan to be prepared prior construction and prior project implementation - Proper waste management measures, such as appropriate waste segregation, storage and disposal or re-use/recycle
Noise generation during rehabilitation works	- Rehabilitation activities to generate permissible levels of noise

Anticipated Impacts	Indicative Mitigation Measures
	<ul style="list-style-type: none"> - Noisy equipment to be properly insulated or placed in enclosures to minimize noise - If rehabilitation works are being carried out during working hours of the lab, areas under construction should be cordoned with noise absorbing materials
Occupational health and safety risks during operation	<ul style="list-style-type: none"> - Occupational Health and Safety Plan and Standard Operation Procedures to be prepared, followed and training to lab employees to be given - Emergency kits to be placed on visible and accessible places - Provide training to employees handling hazardous materials
<i>Output 2 – Construction of MDS</i>	
Specific impacts related to construction and operation of new MDS are mainly site specific, as location will play a role on type and magnitude of impacts. General impacts for this type of projects expected during construction and operation phases are mainly related to increased noise levels, air pollution, waste production and management, unexpected soil, groundwater and/or surface water contamination due to accidental spills, social/ ecological/ archaeological disturbance depending on location, increased traffic, among others.	Specific mitigation measures can be proposed following a detailed assessment and they would be presented as part of an Initial Environmental Examination (IEE), which includes an Environmental Management Plan (EMP).

IV. ENVIRONMENTAL ASSESSMENT FOR SUBPROJECTS

A. Subprojects Cluster

25. To ensure project implementation efficiency, subprojects under Outputs 1 and 2 grant component will be clustered as follow:

- (i) Cluster 1 – Buildings Rehabilitation for Category B subprojects;
- (ii) Cluster 2 – Buildings Rehabilitation for Category C subprojects;
- (iii) Cluster 3 – Modern Dairy Sheds (MDS) Category B.

26. One safeguard document will be prepared for each Cluster – IEE for Category B Cluster and Due Diligence Report for Category C Cluster. For subprojects with site specific impacts, an Addendum would be prepared for that specific subproject demonstrating the site-specific impacts and mitigation measures.

B. ADB Environmental Assessment Procedures

27. The environmental assessment procedure for the subprojects is described in Table. The assessment will depend upon the categorization of each subproject. Since category A subprojects will be ineligible for financing, all subprojects will be either category B or C. For category B subprojects, the assessment will take the form of an IEE including an EMP. For category C subprojects, a review of environmental implications will be conducted and a due diligence must be conducted. The IEE for category B subprojects will be prepared in consultation with

stakeholders following ADB procedures. It will be consistent with SPS with respect to outline and content and the level of detail and comprehensiveness will be commensurate with the significance of the potential impacts and risks.

Table 3: Environmental Assessment Procedures for Proposed Subprojects

<p><i>Environmental Screening and Categorization (all subprojects)</i></p>	<p>All subprojects using ADB funds are screened as follow:</p> <ul style="list-style-type: none"> - Against ADB’s Prohibited Investment Activities List (PIAL) presented in Annex 1; - Only subprojects that are not expected to have significant environmental impacts (Category A), in accordance with ADB’s SPS, will qualify for loan; - Subprojects with significant involuntary resettlement or impacts on indigenous people (Category A) will be excluded from lending; and, - All subprojects are reviewed and evaluated against the national laws, regulations, and standards on environment, health, safety and labor standards. Any subproject, which does not meet the criteria listed above must be rejected. <p>Environmental specialist(s) from the PIG will undertake environmental screening of subprojects using the screening checklist (Annex 1) during the initial identification of the proposed activity.</p> <p>After screening, approved subprojects must be categorized as Category B or Category C, using the REA checklist provided as part of Annex 1. The findings of the environmental screening will conclude if an IEE for Category B subprojects is required or an environmental Due Diligence Report (DDR) for Category C subprojects will be adequate.</p>
<p><i>Environmental Due Diligence Report (DDR) (Category C subprojects)</i></p>	<p>The environmental DDR is a brief statement regarding the subproject. The report is prepared according to the following procedure:</p> <ul style="list-style-type: none"> - Collection of information: PIG will collect information during the initial identification of the subproject and document any significant environmental concerns. Information will be collected from stakeholders, including community members. - Preparation of Environmental DDR: background information on the physical, biological and socioeconomic environment of the subproject area, based on direct observation by the PIG environment team and description of anticipated impacts and management measures. <p>The outline of the Environmental DDR is as follows:</p> <ul style="list-style-type: none"> • Introduction (brief description of the subproject) • Components expected as part of the subproject • Description of existing facilities and any existing environmental issues • Anticipated impacts (expected non-significant)

	<ul style="list-style-type: none"> • Conclusions and recommendations on management measures for the non-significant impacts
<p><i>Initial Environmental Examination (IEE)</i> <i>(Category B subprojects)</i></p>	<p>An IEE will be required for all category B subprojects. It describes the environmental status of the subproject, including potential impacts, the formulation of mitigation measures, and the preparation of institutional requirements and environmental monitoring for the subproject.</p> <p>An IEE typically involves the following:</p> <ul style="list-style-type: none"> - Desk review of available information and subproject description; - Baseline data collection, with field visit if required; - Consideration of alternatives; - Identification of impacts, mitigations and monitoring requirements; - Consultations with Affected People and information disclosure; - Grievance Redress Mechanism; - Development of management plans (below in detail) <p>The content and format of the IEE is presented in Annex 2.</p> <p>An EMP will be developed as part of the IEE. It will include (i) proposed mitigation measures, (ii) environmental monitoring and reporting requirements, (iii) emergency response procedures or specific management plans, (iv) related institutional or organizational arrangements, (v) capacity development and training measures, (vi) implementation schedule, (vii) cost estimates, and (viii) performance indicators. The EMP will define expected outcomes as measurable events to the extent possible, and will include performance indicators or targets that can be tracked over defined periods. It will be responsive to changes in activity design, such as a major change in location, or in technology, unforeseen events, and monitoring results. The EMP will form part of the contract documents and if required will be updated during the construction phase. All bid documents will include a requirement to incorporate necessary resources into the contractor's bid to implement mitigation measures specified in the EMP.</p>

C. ADB Review and Clearance of Environmental Assessment Documents

28. ADB will review each Cluster safeguard documents, to ensure the correct approach and safeguard requirements are presented. Once the Cluster safeguard documents are cleared, ADB will review the first three (3) Addendums if they are prepared. As part of this review, ADB will provide guidance to PIG on how to prepare satisfactory Addendums for remaining subprojects. Table 4 sets out the review procedure after the IEE is prepared and meaningful public consultation is held.

Table 4. ADB Review Procedures

Approval/clearance of safeguard documents	PIG, after review of the safeguard documents for the clusters, will forward it to ADB for review. If subprojects have site-specific impacts and Addendum will be prepared and ADB will review the first three (3) Addendums to clearance prior to issuance of tender documents. To ensure contractors appropriately implement the agreed measures, the PIG will include the approved EMP in bidding documents and civil works contracts.
Disclosure of information	Once cleared by ADB, PIG will endorse the documents for disclosure on ADB's website (i) the final IEE and any Addendum, (ii) a new or updated Addendum and corrective action plan prepared during subproject implementation, if any, and (iii) the environmental monitoring reports.
Monitoring	PIG will monitor the subprojects as per monitoring program developed by PIG and will submit bi-annual monitoring reports to ADB.

29. ADB will conduct review missions twice annually during the first two years of project implementation to (i) assess implementation effectiveness and propose any necessary adjustments to the implementation arrangements, (ii) monitor implementation progress against expectations, identify constraints, and define actions to address them, and (iii) ensure compliance with ADB safeguards conditions set out in the financing agreement and in particular, EMP implementation will be scrutinized.

D. Consultation, Information Disclosure, and Grievance Redress Mechanism

30. **Public Consultation:** ADB's environmental safeguard policies require meaningful public consultation⁶ meetings at an early stage of the IEE process for environment Category B subprojects. Consultation must be carried out during the early stages of the IEE process and throughout subproject implementation to address any environmental issues of concern to local communities, nongovernment organizations, governments, and other interested parties. It is important that consultation with stakeholders occurs at an early stage of subproject preparation and implementation. The IEE report will record the views of stakeholders and indicate how these have been taken into account in subproject development.

31. During the preparation of the IEE, the PIG has to ensure that meaningful public consultations are held with Affected People and their concerns recorded and included in the project design as required. Meaningful consultation entails consultation process that is carried out early during project preparation, timely disclosure of project information, consultation in an environment free of coercion or intimidation, is gender inclusive and responsive and takes into account relevant views of people in the project design and mitigation measures.

⁶ 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

32. **Information Disclosure:** Information will be disclosed through public consultation, and more formally by making documents and other materials available in a form and at a location easily accessed by stakeholders. The PIG will make the IEE reports available to interested stakeholders before subproject approval. In addition, ADB will ensure that the IEEs are posted on ADB's website.

33. **Grievance Redress Mechanism:** The GRM aims to provide a trusted way to voice and resolve concerns linked to the subproject, and to be an effective way to address affected people's concerns.

34. A GRM will be established by PIG to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances about the social and environmental performance at the level of the subproject.

35. The GRM established for the subproject will be consistent with that of the IEE. Affected person or communities have the right to file a complaint and PIG will ensure that the same will be dealt with in a satisfactory and timely manner. The GRM and procedure to be followed by PIG in the advent of a complaint being filed is as follows:

- (i) Level 1: A formal or informal complaint can be lodged through the PIG where resolution will be attempted with corresponding locally-elected representatives to act as a third party to ensure a fair and just resolution. Efforts will be exhausted to resolve the issue at this level.
- (ii) Level 2: If the complaint is not settled within two weeks (or 15 days), it will be elevated to the Project Steering Committee at the central level. The elected representatives will then have the chance to mediate in favor of the affected person(s) or community.
- (iii) Level 3: If no resolution has been reached after 15 days, the complaint(s) can be further elevated to the appropriate Court of Law.

36. A record of grievances filed will be kept by the PIG and will be evaluated periodically to determine common complaints in order to improve procedures in handling them. Lessons learned from the complaints will be incorporated in revising and in streamlining of the grievance process.

E. Project-level Complaints Procedures

37. The project will have overall procedures to deal with all complaints received as part of the subprojects cluster GRM. These procedures will allow for a unified system for complaints that cannot be resolved at GRM level.

38. The system will group subprojects with similar scope and have a system where the following will be followed:

- (i) System for cluster subproject will be set up;
- (ii) Complaints that cannot be resolved at the GRM level for each subproject will be logged into their appropriate group;
- (iii) Resolution and action plan will be prepared and PIG will be directly involved on the problem solving with the complainant;
- (iv) ADB must be informed on complaints that reach the Project-level and bi-annual monitoring reports must report on the complaints and resolution, if any, must be presented.

F. Monitoring Responsibilities

39. PIG has the responsibility for monitoring implementation of the safeguard documents for all subprojects and undertaking necessary due-diligence. PIG will also ensure that ADB has access to the environmental due diligence for all subprojects, when required. PIG will also ensure ADB has access to selected subprojects as part of random subprojects review missions.

G. Staffing Requirements

40. The PIG will appoint a suitably qualified environmental specialist to oversee environmental aspects of the project overall, and conduct all activities under PIU's responsibilities. A TOR for the environmental specialist is provided in the Project Administration Manual (PAM).

OUTPUT 2 – FI COMPONENT

A. Output 2 – Brief Description

41. **Productivity in dairy value chains increased.** The project will provide demand-driven investment channelled through selected participating financial institutions (PFIs) that satisfy ADB's due diligence. The project will use a dairy hub business model where participating processors will take lead role to link household and *dekhan* farmers to other participating enterprises for inputs and services. The participating processors will also provide credit to households and/or *dekhan* farms to purchase improve breed of cows and build sheds. The project finance will be provided for eligible subprojects that will enable (i) processing enterprises to increase capacity utilization and operational efficiency, and upgrade and/or diversify product lines; (ii) breeding farms to invest in imported stock to facilitate breeding of improved breeds with higher milk yield for sale to households and/or *dekhan* farms; (iii) feed and fodder enterprises to provide adequate supplies to sustain; (iv) veterinary services to be improved to address high incidence of several animal disease

42. The PDPs will engage in contract farming arrangements with participating household farmers (PHFs) and participating *dekhan* farmers (PDFs). Following arrangements will be made: (i) PDPs will provide credit to PHFs and PDFs for purchasing improve breed of cows and build sheds, (ii) PHFs and PDFs will sell milk to PDPs at agreed market price; (ii) PDPs will link PHFs and PDFs with other participating dairy enterprises (PDEs) for inputs and services. It is estimated that each hub and/or subproject will have a capacity of 20,000 to 25,000 liters of milk collected within 20 - 40 km radius.

B. Defined Responsibilities

43. The following are the main responsibilities for the PIG and the PFIs:

- (i) PIG
 - Screening of subprojects to ensure PIAL and Category A subprojects are excluded;
 - Screening of subprojects to ensure all the subprojects with land acquisition and involuntary resettlement are excluded;
 - Subprojects categorization according to ADB safeguard requirements (for Category B and Category C projects);
 - Support the sub-borrowers by preparing safeguard documents and conducting public consultations, according to ADB safeguard requirements, and get ADB clearance before public disclosure by ADB and PIG;
 - Ensure that the sub-borrower obtained all regulatory clearances required by national environmental and health legislation before starting the subproject;
 - In the case of unpredicted environmental and social impacts occurring during subprojects processing and implementation, immediately notify ADB, and prepare a corrective action plan;
 - Monitor subprojects during implementation stage;
 - Monitor PFIs on overall ESMS performance and implementation;
 - Submit bi-annual monitoring reports to ADB.
- (ii) PFIs - Proceed according to the approved ESMS Arrangement document, which define ADB safeguards requirements for the selected PFIs:

- Confirm that proposed subprojects have been approved by the PIG;
 - Confirm that no subproject on ADB PIAL or Category A activities are included;
 - Confirm that no subprojects with land acquisition and involuntary resettlement impacts are included;
 - Confirm that the required environmental safeguard documents are prepared and approved by the PIG;
 - Confirm required regulatory approvals are complete;
 - Ensure covenants related to safeguards are included in the grant agreements between PFIs and sub-borrowers, i.e. EMP or any other safeguard document;
 - Ensure loan agreements include provisions for monitoring and access by PIG and ADB for subprojects review;
 - Submit monitoring reports to PIG on ESMS implementation.
- (iii) Sub-borrowers (in consultation with and guided by the PIG)
- Provide information to the PIG to allow them to prepare necessary safeguard documents;
 - Ensure that the environmental management plan, including all proposed mitigation measures and monitoring programs, are properly implemented;
 - In case of unpredicted environmental impacts occurring during subproject implementation, immediately inform PIG, prepare and implement a corrective action plan in coordination with PIG;
 - Provide awareness training in environmental management for all employees working on the subproject;
 - Obtain all regulatory clearances required by national environmental and health legislation before starting the subproject;
 - Provide access to PIG and ADB for selected subprojects review.

C. PIG Direct Support to Sub-borrowers

44. PIG will support the sub-borrowers on the following:
- (i) Screen and categorize the subproject and inform the sub-borrower the outcome and which safeguard documents must be prepared;
 - (ii) Prepare safeguard documents prepared in compliance with ADB safeguard requirements;
 - (iii) Advise on required regulatory clearances for the subproject and ensure the sub-borrower obtained all necessary to the specific subproject;
 - (iv) In case of unpredictable impacts, support and prepare with the sub-borrower and action plan and monitor implementation of the action plan;
 - (v) Conduct subprojects monitoring and advise and guide the sub-borrower in case non-compliances are observed.

D. Subproject Safeguard Criteria

45. For proposed subprojects to be finance through PFIs, the PIG will maintain safeguard responsibilities.

46. The subprojects will be clustered, screened and categorized by the PIG, using the same criteria presented in this framework for Outputs 1 and 2 (grant component). Information regarding the subprojects to allow for a proper screening and categorization will be provided by the sub-borrowers.

47. The subprojects will be clustered per type and the same approach for developing the safeguard documents as per grant component will be followed.

E. New PFIs

48. ADB will identify two new PFIs and conduct three types of due diligence: (i) financial in accordance with OM D6; (ii) environment and social in accordance with SPS and OM F1; and (iii) anti-money laundering, and integrity in accordance with OM C5.

F. Staffing Requirements

49. The PIG will appoint a suitably qualified environmental specialist to oversee environmental aspects of the project overall, and conduct all subprojects under PIU's responsibilities. A TOR for the environmental specialist is provided in the Project Administration Manual (PAM).

ANNEX 1

SCREENING CHECKLIST FOR SUBPROJECTS

SCREENING QUESTIONS	Yes	No	REMARKS
A. Compliance with national laws and/or regulations (for existing SMEs) Is the subproject in breach of any applicable government environmental, health, safety or social laws or regulations?	<input type="checkbox"/>	<input type="checkbox"/>	
B. ADB's Prohibited Investment Activity List Is any of the subprojects activities included in ADB's list of prohibited investment activities presented below?	<input type="checkbox"/>	<input type="checkbox"/>	
C. Subprojects with high adverse environmental impacts (Category A) Is the subproject proposed for financing expected to have high environmental and social risks?	<input type="checkbox"/>	<input type="checkbox"/>	

Notes: The Remarks field can be used to comment on screening questions A, B and C. Such comments can, for example, refer to the availability of clearance, permits, or licenses currently being requested from the concerned local government agency, or clarify that sub-borrower is not substantially involved in production of or trade in alcoholic beverages, or inform that project is located at xx km distance from a specially protected area.

RAPID ENVIRONMENTAL ASSESSMENT CATEGORIZATION CHECKLIST

(The checklist will be attached to the subproject proposal)

Screening Questions	Yes	No	Remarks
A. Project location. Is the project area near or within the following environmentally sensitive areas?			
• Cultural heritage area			
• Protected area			
• Wetland			
• Buffer zone of protected area			
• Special area for protecting biodiversity			
• Will the project obstruct the main flow of perennial streams or water courses?			
• Is the project on government land or on land freely provided to the project?			
• Does the project require involuntary resettlement, or compensation, other than that of an in-kind nature, negotiated within the community?			

Screening Questions	Yes	No	Remarks
B. Potential Environmental Impacts during Construction			
• Will the project cause construction impacts due to the movement of equipment through communities?			
• Will the project require the use of labor camps for housing construction workers?			
• Will the project cause excessive air emissions from equipment, or dust from construction activity?			
• Will the project release excess sediment into streams?			
• Will the project require removal of trees?			
• Will access roads need to be constructed?			
• Do hazardous conditions exist for workers performing the work?			
C. Potential Environmental Impacts during Operations			
• Will the project have a negative impact on downstream water users?			
• Will the project adversely affect ecology in the area, including species diversity?			
• Will the project give rise to social conflicts regarding tenure and land use?			
• Will the project cause in-migration with opening of roads to upland areas?			
• Will the project adversely affect tourism and recreational opportunities in the area?			
• Will the project cause conflicts with established land management policies?			
• Will the project cause ecological problems due to land clearance prior to restoration e.g., soil erosion, disruption of hydrological cycle, loss of nutrients and soil fertility?			
• Will the project cause other ecological problems e.g. pollution of water bodies from fertilizers, pesticides and herbicides?			
D. Potential Environmental Benefits			
• Reduction in deforestation			

Screening Questions	Yes	No	Remarks
• Reduction in soil erosion			
• Enhancement of water availability			
• Increase in aesthetic environmental value			
• Improved quality of life			

Checklist is prepared by (name and designation)

Main impacts influencing environment category

- 1.
- 2.
- 3.

Category A subproject is excluded – Yes No

PIAL activities are excluded – Yes No

Subproject is categorized as B.....C.....or B/C (needs verification by Project Implementation Group environment specialist)..... (please check the appropriate category)

Categorization approved by (name and signature of senior environment specialist of PI Project Implementation Group G)

ADB'S PROHIBITED INVESTMENT ACTIVITIES LIST (PIAL)

The following do not qualify for Asian Development Bank financing:

- (i) production or activities involving harmful or exploitative forms of forced labor⁷ or child labor;⁸
- (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 phaseouts or bans, such as (a) pharmaceuticals,⁹ pesticides, and herbicides,¹⁰ (b) ozone-depleting substances,¹¹ (c) polychlorinated biphenyls¹² and other hazardous chemicals,¹³ (d) wildlife or wildlife products regulated under the

⁷ Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

⁸ 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).

⁹ A list of pharmaceutical products subject to phaseouts or bans is available at <http://www.who.int>

¹⁰ A list of pesticides and herbicides subject to phaseouts or bans is available at <http://www.pic.int>

¹¹ 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>

¹² 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.

¹³ A list of hazardous chemicals is available at <http://www.pic.int>

- Convention on International Trade in Endangered Species of Wild Fauna and Flora,¹⁴ and (e) transboundary trade in waste or waste products;¹⁵
- (iii) production of or trade in weapons and munitions, including paramilitary materials;
 - (iv) production of or trade in alcoholic beverages, excluding beer and wine;¹⁶
 - (v) production of or trade in tobacco;¹⁰
 - (vi) gambling, casinos, and equivalent enterprises;¹⁷
 - (vii) production of or trade in radioactive materials,¹⁸ including nuclear reactors and components thereof;
 - (viii) production of, trade in, or use of unbonded asbestos fibers;¹⁹
 - (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.

¹⁴ A list is available at <http://www.cites.org>

¹⁵ As defined by the Basel Convention; see <http://www.basel.int>

¹⁶ This does not apply to qualified SME borrowers who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a qualified SME borrower's primary operations.

¹⁷ This does not apply to qualified SME borrowers who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a qualified SME borrower's primary operations.

¹⁸ 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.

¹⁹ This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

ANNEX 2

INITIAL ENVIRONMENTAL EXAMINATION REPORT OUTLINE

This outline is part of the safeguard requirements. An initial environmental examination (IEE) report is required for all environment category B subprojects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. The substantive aspects of this outline will guide the preparation of IEE reports, although not necessarily in the order shown.

- A. Introduction
- B. Policy, Legal, and Administrative Framework: discusses the national and local legal and institutional frameworks within which the environmental assessment is carried out. It also identifies subproject-relevant international environmental agreements to which the country is a party.
- C. Description of the Project: describes (i) the proposed subproject, (ii) its major components, and (iii) its geographic, ecological, social, and temporal context, including any associated facility required by and for the subproject (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the subproject's layout and components, the subproject site, and the subproject's area of influence.
- D. Description of the Environment (Baseline Data): describes relevant physical, biological, and socioeconomic conditions 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 subproject. It indicates the accuracy, reliability, and sources of the data.
- E. Anticipated Environmental Impacts and Mitigation Measures: (i) predicts and assesses the subproject'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, and to the extent possible; (ii) identifies mitigation measures and any residual negative impacts that cannot be mitigated; (iii) explores opportunities for enhancement; (iv) 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 (v) examines global, trans-boundary, and cumulative impacts as appropriate.
- F. Information Disclosure, Consultation, and Participation: (i) describes the process undertaken during subproject design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders; (ii) summarizes comments and concerns received from affected people and other stakeholders, and how these comments have been addressed in 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 subproject implementation.

- G. **Grievance Redress Mechanism:** describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.
- H. **Environmental Management Plan:** deals with the set of mitigation and management measures to be taken during subproject 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 key components (with the level of detail commensurate to the subproject's impacts and risks):
- (i) *Mitigation:*
 - (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
 - (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and
 - (c) provides links to any other mitigation plans (for example, for involuntary resettlement, indigenous people, or emergency response) required for the project.
 - (ii) *Monitoring:*
 - (a) describes 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
 - (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate mitigation measures, and documents the progress and results of mitigation.
 - (iii) *Implementation arrangements:*
 - (a) specifies the implementation schedule, showing phasing and coordination with overall project implementation;
 - (b) describes 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 management and monitoring, and organizational changes; and
 - (c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

- (iv) *Performance indicators*: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.
- I. Conclusion and Recommendation: provides the conclusions drawn from the assessment and provides recommendations.