



**Draft**  
**Environmental and Social Screening and Assessment Framework (ESSAF)**  
**for**  
**Multi-Donor Trust Fund (MDTF)**

**Islamabad, Pakistan**  
**December 2010**

## Contents

	List of Acronyms .....	iii
I.	Introduction .....	1
II.	Overview of MDTF .....	1
III.	ESSAF Objective.....	2
IV.	General Principal .....	2
V.	Policy Framework .....	3
VI.	Impact Screening, Assessment and Mitigation Planning .....	5
VII.	Consultations .....	6
VIII.	Planning, Review and Approval .....	6
IX.	Capacity-Building and Monitoring of ESSAF Implementation .....	7
X.	Disclosure .....	8

## Attachments

Attachment 1:	Criteria for Type of Environmental Instrument .....	9
Attachment 2:	Guidelines for Preparation of Environmental and Social Management Plans .....	9
Attachment 3:	Checklist of Likely Environmental and Social Impacts of Projects .....	11
Attachment 4:	Guidelines for Land Acquisition and Resettlement Planning.....	18
Attachment 5:	Protection of Cultural Property .....	27
Attachment 6:	Safeguards Procedures for Inclusion in the Technical Specifications of Contracts .....	29
Attachment 7:	Environment, Health, and Safety Guidelines.....	34

## List of Acronyms

BP	Bank Procedures
DNA	Damages and Needs Assessment
EA	Environmental Assessment
ECOP	Environmental codes of practice
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ESFP	Environmental and social focal point
ESMP	Environmental and Social Management Plan
ESSAF	Environmental and Social Screening and Assessment Framework
FATA	Federally Administered Tribal Areas
GoBalochistan	Government of Balochistan
GoKP	Government of Khyber Pakhtunkhwa
GoP	Government of (Islamic Republic of) Pakistan
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICR	Implementation Completion Report
IDP	Internally displaced person
IEE	Initial Environmental Examination
IFC	International Finance Corporation
KP	Khyber Pakhtunkhwa (province)
MDTF	Multi Donor Trust Fund
OP	Operational Policy
PAP	Project affected person
PaRRSA	Provincial Relief, Rehabilitation and Settlement Authority
PCNA	Post Conflict Needs Assessment
PSR	Project Supervision Report
RAP	Resettlement Action Plan
RP	Resettlement Plan
SA	Social Assessment
TARUCCI	Tribal Areas Rural to Urban Centers Conversion Initiative
WB	World Bank

## Pakistan

### Environmental and Social Screening and Assessment Framework

#### I. Introduction

1. A Multi-donor Trust Fund (MDTF) has been established in Pakistan to assist in the reconstruction and livelihood restoration in the conflict-affected areas of Khyber Pakhtoonkhwa (KP), the Federally Administered Tribal Areas (FATA), and Balochistan. Much of the conflict-affected areas are again impacted by the recent flooding. The MDTF will be keeping, mainly, the focus of its intervention on post crisis while also addressing the response to the recent floods if requested by the Government of Pakistan (GOP).

2. To provide a mechanism to carry out appropriate assessment of environment and social impacts and implement necessary safeguard measures under these emergency operations, an Environmental and Social Screening and Assessment Framework (ESSAF) has been developed, in line with the Bank's safeguard policies and OP 8.0 for the emergency operations.

#### II. Overview of MDTF

3. The purpose of the MDTF is to support the implementation of reconstruction and development aimed at facilitating the recovery of the affected regions in KP, FATA, and Balochistan from the impact of the armed conflict and reducing the potential for escalation or resumption. To this end, the MDTF will finance projects intended to: (i) promote enhanced, sustainable and accountable delivery of basic services; (ii) support livelihoods and community-based development of basic infrastructure and services; (iii) help communities to access assets and market opportunities and create the basis for viable income generating activities; and (iv) support peace building activities and promote rapid crisis recovery in KP, FATA and conflict-affected districts of Balochistan; and (v) strengthening, (re)building and/or maintaining government institutions in order to improve governance, the overall institutional performance and state effectiveness.

4. The broad sectoral areas eligible for funding from the MDTF are described below.

- Restoring damaged infrastructure and disrupted services, including *inter alia*: (i) reconstructing health, education and government buildings, and providing equipment and supplies therefore; (ii) restoring damaged infrastructure in the power, transport, water supply, sanitation and irrigation sectors; and (iii) carrying out a program for owner-driven reconstruction or repair of housing damaged during the armed conflict;
- Improving local (district and/or union) service delivery, including *inter alia*: (i) increasing the capacity and accountability of local governments for resource management and service delivery; and (ii) providing basic infrastructure and delivering basic services to low income communities through community-driven development interventions;
- Improving provincial governance and service delivery, including, *inter alia*: (i) strengthening coverage, quality and governance of the education system by: (A) increasing enrolment rates and improving learning outcomes; (B) strengthening

administration and operation of schools; and (C) promoting better monitoring and evaluation (accountability) mechanisms; (ii) strengthening the quality of primary and secondary health care services, as well as the stewardship of the health system; (iii) improving the coverage, targeting, efficiency and cost-effectiveness of the social protection system; (iv) strengthening justice service delivery and the rule of law; and (v) strengthening the institutional and technical capabilities of civil administration;

- Maintaining and/or reinforcing livelihoods of local communities through increased access to productive assets and market opportunities in order to facilitate income generating activities, including *inter alia*: (i) augmenting and/or recovering lost livestock; (ii) providing agricultural inputs such as fertilizers and seeds, and/or preparing land plots to restore production; (iii) providing micro-credits to low income communities; and (iv) providing skills development and business development training to rural community members to foster new business ventures among poor rural households;
- Strengthening the technical capacity, and institutional arrangements and coordination, of KP's and Balochistan's line departments and agencies, as well as the FATA Secretariat, in order to carry out the post-crisis reconstruction efforts, including *inter alia*: (i) reviewing and revising policies, where appropriate, to consolidate peace and avert future conflicts by addressing their underlying causes; and (ii) supporting the KP's Provincial Reconstruction, Rehabilitation and Settlement Authority and FATA's Disaster Management Authority.

### **III. ESSAF Objective**

5. This ESSAF has been developed specifically for all projects and activities to be financed under the MDTF. Recognizing the urgent need for assistance and emergency nature of potential operations to be financed under the MDTF, the ESSAF provides an approach, tailored to this emergency situation in line with OP 8.00, to manage the potential environmental and social impacts of the projects and activities under the MDTF. It will guide the implementation agencies in: i) carrying out appropriate assessment of environmental and social impacts; ii) planning and implementing necessary environmental and social mitigation measures for these projects during the implementation phase, in compliance with relevant World Bank safeguard policies and the national regulatory requirements in Pakistan.

### **IV. General Principal**

6. Recognizing the emergency nature of the potential operations under the MDTF and the related need for providing immediate assistance, while at the same time ensuring due diligence in managing potential environmental and social risks, the ESSAF is based on the following principles:

- The operations under MDTF will support multiple projects, the detailed designs of which may not be known at this stage. To ensure effective application of the World Bank's safeguard policies and the national regulatory requirements, the ESSAF provides guidance on the approach to be taken during the selection and design of projects/subprojects and the planning of mitigation measures.

- Environmental category ‘A’ projects are not expected under the MDTF. However, if any do occur, Environment Assessments (EAs) for specific operations will be carried out during implementation, instead of before appraisal (the EAs will need to be carried out and cleared by the Bank *before* initiating the category ‘A’ projects). The corrective measures in the form of an Environmental and Social Management Plan (ESMP) will be built into the design of the specific projects under MDTF. The above is in accordance with paragraph 13 of OP 4.01 and paragraph 5 of BP 4.01.
- For any environmental category ‘B’ project, an ESMP will be prepared during implementation, instead of before appraisal, however the ESMP will need to be prepared and cleared by the Bank before initiating the works under the project. For any project that consists of several distinct subprojects, ESMPs can be prepared for individual subprojects or their clusters.
- No major resettlement issues are expected in the recovery and reconstruction operations to be financed under the MDTF. However, all proposed operations will be subject to resettlement impact screening. If any resettlement impacts are expected to occur, Resettlement Plans (RPs) for specific projects will be prepared and approved *before* initiating the specific projects.

## V. Policy Framework

7. **Pakistan EIA Regulations. Environmental Protection Act, 1997.** The Act requires that an Initial Environmental Examination (IEE) is carried out prior to undertaking any project, or an Environmental Impact Assessment (EIA) is carried out prior to any project that may cause significant environmental and social impacts – and approval obtained from the Environmental Protection Agency (EPA). The Act will be applicable to the projects under MDTF also, and the EAs to be conducted for the individual projects as part of the emergency operations will be consistent with the requirements laid down in the Act and its subordinate IEE/EIA Regulations.

8. **The Land Acquisition Act (LAA) 1894.** The Pakistan law governing land acquisition is the LAA of 1894 and successive amendments. The LAA regulates the land acquisition process and enables the federal and provincial governments to acquire private land for public purposes through the exercise of the right of eminent domain. Land acquisition is a provincial responsibility and each province has its own interpretation of the Act. Some provinces also have their own province specific implementation rules.

9. **World Bank OP 4.01 - Environmental Assessment.** This operational policy (OP) requires EA to be conducted of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable with an objective to improve decision making process. The OP also classifies the project in one of the four categories (A, B, C and FI) on the basis of the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

10. Considering the nature and magnitude of potential environmental and social impacts from relatively limited scale and quantum of the proposed activities, the operations under the MDTF are likely to be classified as category ‘B’. The requirement to carry out an Environmental Assessment (EA) as part of project preparation can be waived but, for projects

with potential adverse impacts, an appropriated level of environmental and social assessment will be carried out during the project implementation. At the same time, prior to appraisal, the implementing agencies will agree to apply the following minimum standards during implementation: (i) inclusion of standard environmental codes of practice (ECOP) in the bid documents of all projects; (ii) conducting EA acceptable to the Bank *before* initiating any environmental category ‘A’ projects/subprojects; (iii) preparing ESMP acceptable to the Bank *before* initiating any environmental category ‘B’ projects/subproject; (iv) review and oversight of any major construction works by environmental and social specialists; (v) provisions for adequate budget and satisfactory institutional arrangements to implement the environmental and social mitigation measures; and (vi) provisions for adequate budget and satisfactory institutional arrangements to monitor the effective implementation of environmental and social mitigation measures.

11. **World Bank OP 4.12 - Involuntary Resettlement.** The need for involuntary resettlement or land acquisition in specific subproject areas will only be known during project implementation, when site-specific plans are available. Therefore projects will be screened for applicability of the resettlement policy and any projects involving involuntary resettlement or land acquisition will only be approved after preparation of a resettlement plan acceptable to the Bank. The safeguards framework will therefore include procedures for identifying eligible project-affected people, calculating and delivering compensation, and mechanisms for land dispute grievance redress.

12. **World Bank OP/BP 4.10 - Indigenous Peoples.** There are no known indigenous peoples living in the affected areas and ethnicity is in any case only one of many factors determining vulnerability in the present situation in Pakistan. In this perspective, a social assessment with focus on potential vulnerability covering all affected groups is planned to ensure effective consultations and culturally appropriate benefits for each group, instead of focusing only on groups defined as “indigenous peoples”. As part of this analysis, project preparation will assess the vulnerability of different groups in particular project contexts (in terms of potential exclusion from project benefits, negative project impacts, and the need for specific culturally compatible mechanisms for participation, e.g. for women, permanently disabled), and will incorporate adequate measures to address such vulnerability in project design.

13. **World Bank OP 11.03 - Cultural Property.** The emergency operations may pose limited risks of damaging cultural property, assuming that they will not include large-scale excavations, movement of earth or demolition. Nevertheless, projects will be reviewed for their potential impact on cultural property and clear procedures will be required for identification, protection of cultural property from theft, and treatment of discovered artifacts, and will be included in standard bidding documents. While not damaging cultural property, subproject preparation may later identify and include assistance for preservation of historic or archeological sites. If these opportunities occur, cultural property management plans would be prepared for those projects.

14. **World Bank OP 4.04 - Natural Habitats/OP 4.36 - Forestry.** The projects under the proposed recovery operations are unlikely to directly affect the natural habitats, forest resources, declared forest reserves, wildlife reserves, national parks, and sanctuaries.

However, the reconstruction activities may indirectly increase pressure on natural resources, such as timber. Hence, this aspect will need to be covered in the environmental and social assessment of the individual projects. In addition, the implementing agencies will agree, prior to appraisal, not to carry out any reconstruction works under the proposed project in thickly forested areas, declared forest reserves, wildlife reserves, national parks, and sanctuaries. Decisions on actions and requirements will be made with the concurrence of the Bank.

15. **Other WB Operational Policies.** Other OPs - including OP 4.09 (Pest Management), OP 4.37 (Safety of Dams), OP 7.50 (Projects in International Waters), and OP 7.60 (Projects in Disputed Areas) – are not likely to be relevant for the proposed project and hence not triggered. However, these OPs will be reviewed while conducting the EAs or preparing ESMP for the category ‘A’ and category ‘B’ projects, respectively.

## VI. Impact Screening, Assessment and Mitigation Planning

16. While preparing any operations or projects for financing under the MDTF, the ESSAF will be followed to screen environmental and social impacts and plan any required mitigation measures. The screening process and its findings as well as the proposed mitigation measures will be documented as part of the project/subproject package. The following guidelines, codes of practice and requirements will be followed in the selection, design and implementation of any operations financed under the MDTF.

- Environmental impact assessment will be conducted for all projects/subprojects under MDTF. Criteria for the type of assessment to be conducted for individual projects/subprojects are provided in **Attachment 1**. Full EAs will need to be conducted and clearance obtained from the Bank *prior* to initiating environmental category ‘A’ projects/subprojects. Environmental and Social Management Plans (ESMPs) will need to be prepared and clearance obtained from the Bank *prior* to initiating environmental category ‘B’ projects/subprojects<sup>1</sup>; **Attachment 2** provides guidelines for preparing ESMPs. For smaller projects/subprojects, environmental screening will be carried out with the help of the checklist provided in **Attachment 3**. The EAs and ESMPs will also be submitted to the relevant EPA for obtaining No Objection Certificate (NOC) before commencing the project/subprojects implementation, in line with the national regulatory requirements in the Country.
- Each implementing agency under the MDTF will appoint/designate an environmental and social focal point (ESFP), who will be responsible for ESSAF implementation within his/her organization, and also for the preparation and submission of quarterly monitoring reports to the Bank on the screening of and the rationale for the proposed environmental categorization of each project.
- While conducting EA and preparing ESMP, cumulative impacts of a large number of projects/subprojects will also be considered.
- All projects/subprojects will be screened for need of land acquisition and resettlement. If confirmed, necessary planning efforts will be carried out to develop mitigation measures.

---

<sup>1</sup> The requirement of obtaining Bank’s clearance for the EAs/ESMPs is proposed for the first two years of the MDTF.



A guideline for land compensation and resettlement planning is provided in **Attachment 4**.

- All projects/subprojects will be screened for impacts on physical cultural resources and necessary mitigation measures. Procedures for the protection of cultural property, including the chance discovery of archaeological artifacts, unrecorded graveyards and burial sites are outlined in **Attachment 5**.
- All construction contracts for the projects/subprojects financed by the MDTF will include appropriate clauses to ensure effective implementation of the mitigation measures identified in EA/ESMP/Checklist. A sample environmental safeguards procedure for inclusion in the technical specifications of contracts is provided in **Attachment 6**.
- The Environment, Health and Safety Guidelines developed by the International Finance Corporation (IFC) and the World Bank will also be applicable to the activities under the emergency projects/subprojects. The Guidelines are provided in **Attachment 7**.
- The procurement plans for the proposed projects/subprojects will include milestones for preparation of EA/ESMP/Checklist, and obtaining clearance from the Bank.

## **VII. Consultations**

17. Consultations will be mainstreamed in the preparation of new operations under the MDTF. For environmental Category ‘A’ and ‘B’ operations<sup>2</sup>, the implementing agencies will consult the potentially affected groups and local nongovernmental organizations on the project environmental and social aspects, and will take their views into account. The implementing agencies will initiate these consultations as early as possible, and for meaningful consultations, will provide relevant material in a timely manner prior to consultation, in a form and language(s) that are understandable and accessible to the groups being consulted.

18. For Category ‘A’ projects/subprojects, the implementing agencies will consult these groups at least twice: (a) shortly after the environmental screening and prior to finalization of the terms of reference for the EA; and (b) once a draft EA report is prepared. For the initial consultation, the implementing agencies will provide a summary of the proposed subproject's objectives, description, and potential impacts. For both Category ‘A’ and ‘B’ projects, the implementing agencies will provide these groups with a summary of the EA report (including the conclusions of the assessment). In addition, the implementing agencies will make the draft reports publicly available to project-affected groups and local nongovernmental organizations.

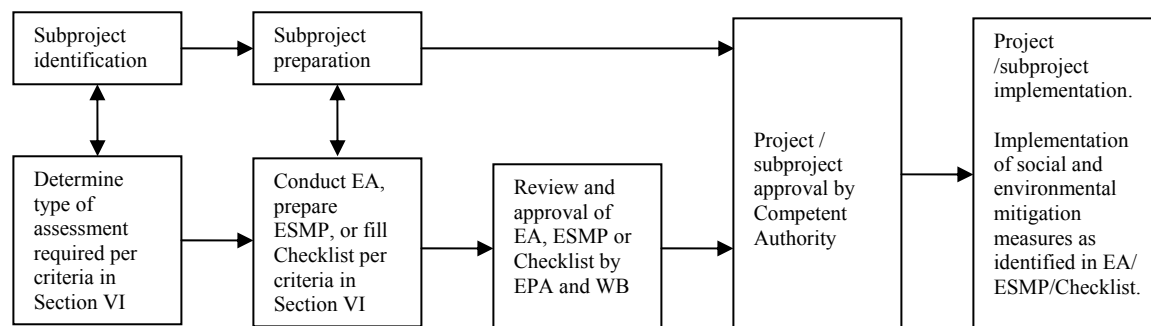
## **VIII. Planning, Review and Approval**

19. The entire environmental and social screening and assessment procedure described above will be integrated within the preparation of the operations under the MDTF. To this end, the screening and planning to address environmental and social impacts would be initiated during the operation preparation phase. The operation preparation agencies will be responsible for the screening and planning of any environmental and social action plans

---

<sup>2</sup> As defined in World Bank Operational Policy 4.01, Environmental Assessment.

required in line with this Framework. The EA or ESMP and RAPs will be submitted to the project approving authority as part of the project/subproject application package. The implementation agencies will assign specialists to review the environmental and social safeguard action plans, such as screening report, EA, ESMP and RAP. The implementation agencies will submit the safeguard documents for World Bank’s review and clearance, in accordance with the procedures as described in **Section VI**. The implementation agencies will not approve the proposed operations until the required environmental and social safeguard action plans are cleared for compliance with the Framework by the World Bank. A simplified flow chart for project preparation, approval and execution along with the EA/ESMP/Checklist requirements is provided below.



20. The implementing agencies will implement the projects under MDTF in close coordination with the relevant line departments, local governments, and political agents. Each implementing agency and in turn, each line department, will be responsible for applying the safeguard screening and mitigation requirements to its own projects. Separate environmental and social focal points (ESFPs) will be identified in each of the implementing agencies, with responsibility for overseeing the implementation of the ESSAF. The provincial EPAs (for KP and Balochistan), and Federal EPA (for FATA projects) will be responsible for environmental clearance for operations or projects/subprojects that require statutory environmental clearance, in accordance with the law. Although the national/provincial environmental clearance procedures are adequate and fairly reliable, the Bank will still review a samples of the EAs/ESMPs prepared under each sub-component and provide necessary concurrence for the approval of disbursements of funds.

21. All agencies and departments who are preparing and will implement operations under the MDTF will appoint officers as the environmental and social focal points (ESFPs), who will liaise and coordinate with relevant agencies to ensure compliance with this Framework.

### **IX. Capacity-Building and Monitoring of ESSAF Implementation**

22. As part of the capacity-building to be provided for implementation of the proposed operations, the ESFPs and relevant staff of the concerned line departments will also receive training in ESSAF’s application. The World Bank will monitor and provide guidance in the implementation of the ESSAF. The World Bank will also assist in this capacity-building in the implementation of approved safeguard action plans.

23. The implementing agencies through their ESFPs will be responsible, besides other functions, to monitor and supervise the implementation of any safeguard action plans. For this purpose, the implementing agencies will establish a monitoring mechanism as part of the project management system over the implementation of agreed safeguard action plans. In addition, the implementing agencies will also engage external monitors over the implementation of agreed safeguard action plans. The monitoring mechanisms should be detailed in the required action plans.

#### **X. Disclosure**

24. This ESSAF will be shared with all relevant agencies, line departments of the provincial and federal governments, concerned nongovernmental organizations, and development partners. Subsequently, it will be disclosed in Urdu and English by the implementing agencies, and also made available at the websites of GoP, GoKP, FATA Secretariat, GoBalochistan and the relevant line departments. Copies of ESSAF will also be sent to Federal EPA, KP EPA, and Balochistan EPA. It will also be made available at the World Bank's InfoShop. Relevant project specific safeguard documents/mitigation plans to be prepared subsequently will also be disclosed in a similar manner.

## Attachment 1: Criteria for Type of Environmental Instrument

Type of Subproject	Category A Projects/Subprojects Full EA Required	Category B Projects/Subprojects ESMP Required (See Attachment 2)	Smaller Projects/Subprojects Environmental Screening Required (Attachment 3)
Infrastructure (such as water supply, sanitation, solid waste management, access roads, drainage, and street lighting)	Cost: Rs 25 million or above	Cost: less than Rs 25 million, but more than 1 million	Cost: up to 1 million
Roads	Cost: Rs. 50 million or above	Cost: less than Rs 50 million, but more than 2 million	Cost: up to 2 million
Schools and health care facilities	Cost: Rs. 50 million or above	Cost: less than Rs 50 million, but more than 2 million	Cost: up to 2 million

Note: These criteria may need to be customized for individual projects under MDTF and approval obtained from the Bank.

## Attachment 2: Guidelines for Preparation of Environmental and Social Management Plans

1. The EA process involves the identification and development of measures aimed at eliminating, offsetting and/or reducing environmental and social impacts to levels that are acceptable during implementation and operation of the projects. As an integral part of EA, ESMP provides an essential link between the impacts predicted and mitigation measures specified within the EA and implementation and operation activities. The World Bank guidelines state that detailed ESMPs are essential elements for Category ‘A’ projects, but for many Category ‘B’ projects, a simple ESMP alone will suffice. While there are no standard formats for ESMPs, it is recognized that the format needs to fit the circumstances in which the ESMP is being developed and the requirements, which it is designed to meet. ESMPs should be prepared after taking into account comments and clearance conditions from both the relevant agency providing environmental clearance and WB. Given below are the important elements that constitute an ESMP.

### *a. Description of Mitigation Measures*

2. Feasible and cost effective mitigation measures to minimize adverse impacts to acceptable levels should be specified with reference to each impact identified. Further, it should provide details on the conditions under which the mitigation measure should be implemented (eg, routine or in the event of contingencies). The ESMP should also distinguish between the phase in which it should become operable (design, construction and/or operational). Efforts should also be made to mainstream environmental and social aspects where possible. Cumulative impacts of a large number of projects should also be considered.

#### *b. Monitoring Program*

3. In order to ensure that the proposed mitigation measures have the intended results and comply with national standards and donor requirements, an environmental monitoring program should be included in the ESMP. The monitoring program should give details of the following;

- Monitoring indicators to be measured for evaluating the performance of each mitigation measure (for example national standards, engineering structures, extent of area replanted, etc).
- Monitoring mechanisms and methodologies
- Monitoring frequency
- Monitoring locations
- Documentation and reporting requirements.

#### *c. Institutional Arrangements*

4. Institutions/departments responsible for implementing mitigation measures and for monitoring their performance should be clearly identified. Additionally, roles and responsibilities of various personnel in these departments should be clearly specified. Where necessary, mechanisms for institutional coordination should also be identified as often monitoring tends to involve more than one institution.

#### *d. Implementing Schedules*

5. Timing, frequency and duration of mitigation measures with links to overall implementation schedule of the project should be specified.

#### *e. Reporting Procedures*

6. Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigation measures and monitoring should be specified. Guidelines on the type of information wanted and the presentation of feedback information should also be highlighted.

#### *f. Cost Estimates and Sources of Funds*

7. Implementation of mitigation measures mentioned in the ESMP, and environmental/social monitoring will involve an initial investment cost as well as recurrent costs. The ESMP should include costs estimates for each measure and also identify sources of funding.

**Attachment 3: Checklist of Likely Environmental and Social Impacts of Projects**

This Form is to be used by the Environmental and Social Focal Persons (ESFPs) in screening subproject applications/proposals for which EA/SA and ESMP are not required (see **Attachment 1**). This checklist may need to be customized, and approval obtained from the Bank for the revised checklist, for any particular project.

Note: One copy of this form and accompanying documentation to be kept in the office of the relevant implementing agency, and one copy to be sent to the task team leader of the World Bank.

Name of Subproject:

Number of Subproject:

Proposing Agency:

Subproject Location:

Subproject Objective:

Infrastructure to be Rehabilitated:

Estimated Cost:

Proposed Date of Commencement of Work:

Technical Drawing/Specifications Reviewed (circle answer): Yes \_\_ No \_\_

**I. Subproject Related Issues**

	<b>ISSUES</b>	<b>None</b>	<b>Minor/ Small</b>	<b>Moderate/ Medium</b>	<b>Significant / Large</b>	<b>Mitigation Measures</b>
<b>A.</b>	<b>Zoning and Land Use Planning</b>					
1.	Will the subproject affect land use zoning and planning or conflict with prevalent land use patterns?					
2.	Will the subproject involve significant land disturbance or site clearance?					

	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant / Large	Mitigation Measures
3.	Will the subproject land be subject to potential encroachment by urban or industrial use or located in an area intended for urban or industrial development?					
<b>B.</b>	<b>Utilities and Facilities</b>					
4.	Will the subproject require the setting up of ancillary facilities?					
5.	Will the subproject make significant demands on utilities and services?					
6.	Will the subproject require significant levels of accommodation or service amenities to support the workforce during construction (e.g., contractor will need more than 20 workers)?					
<b>C</b>	<b>Water and Soil Contamination</b>					
7.	Will the subproject require large amounts of raw materials or construction materials?					
8.	Will the subproject generate large amounts of residual wastes, construction material waste or cause soil erosion?					
9.	Will the subproject result in potential soil or water contamination (e.g., from oil, grease and fuel from equipment yards)?					
10	Will the subproject lead to contamination of ground and surface waters by herbicides for vegetation control and chemicals (e.g., calcium chloride) for dust control?					

	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant / Large	Mitigation Measures
11	Will the subproject lead to an increase in suspended sediments in streams affected by road cut erosion, decline in water quality and increased sedimentation downstream?					
12	Will the subproject involve the use of chemicals or solvents?					
13	Will the subproject lead to the destruction of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards?					
14	Will the subproject lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors?					
<b>D.</b>	<b>Noise and Air Pollution Hazardous Substances</b>					
15	Will the subproject increase the levels of harmful air emissions?					
16	Will the subproject increase ambient noise levels?					
17	Will the subproject involve the storage, handling or transport of hazardous substances?					
<b>E.</b>	<b>Fauna and Flora</b>					
18	Will the subproject involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?					
19	Will the subproject lead to the destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development?					



	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant / Large	Mitigation Measures
20	Will the subproject lead to the disruption/destruction of wildlife through interruption of migratory routes, disturbance of wildlife habitats, and noise-related problems?					
<b>F.</b>	<b>Destruction/Disruption of Land and Vegetation</b>					
21	Will the subproject lead to unplanned use of the infrastructure being developed?					
22	Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture?					
23	Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)?					
24	Will the subproject lead to landslides, slumps, slips and other mass movements in road cuts?					
25	Will the subproject lead to erosion of lands below the road World Banked receiving concentrated outflow carried by covered or open drains?					
26	Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture?					
27	Will the subproject lead to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles?					
<b>G.</b>	<b>Cultural Property</b>					
28	Will the subproject have an impact on archaeological or historical sites, including historic urban areas?					

	<b>ISSUES</b>	<b>None</b>	<b>Minor/ Small</b>	<b>Moderate/ Medium</b>	<b>Significant / Large</b>	<b>Mitigation Measures</b>
29	Will the subproject have an impact on religious monuments, structures and/or cemeteries?					
30	Have Chance Finds procedures been prepared for use in the subproject?					
<b>H.</b>	<b>Expropriation and Social Disturbance</b>					
31	Will the subproject involve land expropriation or demolition of existing structures?					
32	Will the subproject lead to induced settlements by workers and others causing social and economic disruption?					
33	Will the subproject lead to environmental and social disturbance by construction camps?					

## **II. Site Related Issues**

	<b>Issues</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know</b>	<b>Mitigation Measures</b>
1.	Does the subproject require land acquisition? [Note: Fill in the land acquisition form if YES]				
2.	Will the subproject negatively impact livelihoods [Note: Describe separately if YES]				
3.	Is the subproject located in an area with designated natural reserves?				
4.	Is the subproject located in an area with unique natural features?				
5.	Is the subproject located in an area with endangered or conservation-worthy ecosystems, fauna or flora?				
6.	Is the subproject located in an area falling within 500 meters				

	<b>Issues</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know</b>	<b>Mitigation Measures</b>
	of national forests, protected areas, wilderness areas, wetlands, biodiversity, critical habitats, or sites of historical or cultural importance?				
7.	Is the subproject located in an area which would create a barrier for the movement of conservation-worthy wildlife or livestock?				
8.	Is the subproject located close to groundwater sources, surface water bodies, water courses or wetlands?				
9.	Is the subproject located in an area with designated cultural properties such as archaeological, historical and/or religious sites?				
10.	Is the subproject in an area with religious monuments, structures and/or cemeteries?				
11.	Is the project located in an area from where people have been displaced?				
12.	Is the project located in an area where IDPs are temporarily settled?				
13.	Is the project in a politically sensitive area?				
14.	Is the subproject in a polluted or contaminated area?				
15.	Is the subproject located in an area of high visual and landscape quality?				
16.	Is the subproject located in an area susceptible to landslides or erosion?				
17.	Is the subproject located in an area of seismic faults?				
18.	Is the subproject located in a densely populated area?				
19.	Is the subproject located on prime agricultural land?				
20.	Is the subproject located in an area of tourist importance?				
21.	Is the subproject located near a waste dump?				

	<b>Issues</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know</b>	<b>Mitigation Measures</b>
22.	Does the subproject have access to potable water?				
23.	Is the subproject located far (1-2 kms) from accessible roads?				
24.	Is the subproject located in an area with a wastewater network?				
25.	Is the subproject located in the urban plan of the city?				
26.	Is the subproject located outside the land use plan?				

Signed by Safeguard Focal Person: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signed by Project Manager: Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Attachment 4: Guidelines for Land Acquisition and Resettlement Planning**

### **I. Objectives**

1. Resettlement and land acquisition will be kept to a minimum, and will be carried out in accordance with these guidelines. Subproject proposals that would require demolishing houses or acquiring productive land should be carefully reviewed to minimize or avoid their impacts through alternative alignments. Proposals that require more than minor expansion along rights of way should be carefully reviewed. No land or asset acquisition may take place outside of these guidelines. A format for a Land Impact Screening Data Sheet is attached as **Attachment 4(i)**

2. These guidelines provide principles and instructions to compensate negatively affected persons to ensure that they will be assisted to improve, or at least to restore, their living standards, income earning or production capacity to pre-project levels regardless of their land tenure status.

3. Voluntary land contribution is accepted with the following conditions,

- Contribution is truly voluntary without pressure
- The land contributed is free of occupation
- Contribution is less than 10% of the total land holding
- The contributing household is not below the national poverty line
- The contribution is documented

4. Voluntary contribution should be clearly documented to confirm the voluntary nature of the transition. The documentation should specify that the land is free of any squatters, encroachers or other claims. A format is shown in **Attachment 4(ii)**.

### **II. Policy Framework for Land Acquisition and Resettlement**

5. The framework is prepared on the basis of the Land Acquisition Act and the World Bank Operation Policy 4.12 on Involuntary Resettlement. The overall objective is to mitigate adverse project impacts on people's livelihood, and assist them in improving or at least restoring their livelihoods. The following principles will be followed in developing any resettlement plans,

6. The project implementation agencies will ensure timely provision of the following means of compensation to affected peoples:

- (a) Project affected peoples losing access to a portion of their land or other productive assets with the remaining assets being economically viable are entitled to compensation at a replacement cost for that portion of land or assets lost to them. Compensation for the lost assets will be made according to the following principles:
  - (i) replacement land with an equally productive plot, cash or other equivalent productive assets;
  - (ii) materials and assistance to fully replace solid structures that will be demolished;
  - (iii) replacement of damaged or lost crops and trees, at market value;
  - (iv) other acceptable in-kind compensation;

- (v) in case of cash compensation, the delivery of compensation should be made in public, i.e., at the Community Meeting; and
  - (vi) in case of physical relocation, provision of civic infrastructure at the resettlement sites.
- (b) Project affected peoples losing access to a portion of their land or other economic assets rendering the remainder economically non-viable will have the options of compensation for the entire asset by provision of alternative land, cash or equivalent productive asset, according to the principles in (a) i-iv above.

7 The displaced persons eligible for compensation or rehabilitation provisions under the Program are:

- All land owning displaced persons losing land or non-land assets, i.e., crops and trees whether covered by legal title or traditional land rights, whether for temporary or permanent acquisition.
- Tenants and share-croppers, whether registered or not; for all non land assets, based on prevailing tenancy arrangements.
- Displaced persons losing the use of structures and utilities, including titled and non-titled owners, registered, unregistered, tenants and lease holders plus encroachers and squatters.
- Displaced persons losing business, income and salaries of workers, or a person or business suffering temporary effects, such as disturbance to land, crops, and business operations both permanently and also temporarily during construction.
- Loss of communal property, lands and public infrastructure.
- Vulnerable displaced persons identified through focus group discussions.
- In the event of relocation, all displaced persons will receive transitional and other support to reestablish shelter and livelihoods.

### Entitlement Matrix

Assets lost	Specification	Displaced Person	Compensation Entitlements
Residential/ commercial land		Owner (legal/legalizable)	<ul style="list-style-type: none"> <li>▪Cash compensation at replacement cost plus 15% compulsory acquisition surcharge (CAS) free of taxes, registration and transfer costs; or</li> <li>▪Land for land compensation through provision of plots of comparable value and location as the lost asset, including transitional support.</li> </ul>
		Renter/leaseholder	<ul style="list-style-type: none"> <li>▪Cash compensation value proportionate to the duration of the remaining lease period.</li> </ul>
		Encroacher/Squatter	<ul style="list-style-type: none"> <li>▪Self relocation allowance covering one year of agricultural income; or</li> <li>▪Provision of a replacement plot in a public resettlement area and with the legal status (owned or leased) of that lost.</li> </ul>

<b>Assets lost</b>	<b>Specification</b>	<b>Displaced Person</b>	<b>Compensation Entitlements</b>
Agricultural land, including cultivable land and uncultivable wasteland	All land losses irrespective of impact severity	Owner	<ul style="list-style-type: none"> <li>▪Cash compensation at replacement cost plus 15% CAS, free of taxes, of registration and transfer costs; or</li> <li>▪Land for land compensation through provision of plots of equal value and productivity as that lost.</li> </ul>
		Sharecropper/Tenant (registered or not)	▪Cash compensation equal to the market value of the share of lost harvests: two shares if the land loss is permanent, one if it is temporary.
		Lease Tenant (registered or not)	▪Cash equivalent of the market value of the gross yield of lost land for the remaining lease years, up to maximum of three years.
		Encroacher/Squatter	▪Rehabilitation allowance equal to the market value of the harvest of lost land for one year (both rabi and kharif crops) in addition to standard crop compensation.
Residential and commercial structures		Owner of the structure, including Encroachers/Squatters	▪Cash compensation at full replacement cost for affected structures and other fixed assets, free of salvageable materials, depreciation and transaction cost and also transportation cost; or if partial loss, full cash assistance to restore the remaining structure. Fees and taxes (if applicable) will be waived. The option of relocation and relevant support will be discussed during the focus group discussions and included in the RAPs.
		Renter/Leaseholder	▪Cash compensation equivalent to three months rent or a value proportionate to the duration of the remaining lease.
Community Assets			▪Rehabilitation/substitution or cash compensation at full replacement cost of the affected structures and utilities.
Businesses		All DPs so impacted	▪Cash compensation equal to income during the interruption period, as determined through the SIA and included in the RAP

<b>Assets lost</b>	<b>Specification</b>	<b>Displaced Person</b>	<b>Compensation Entitlements</b>
Employment		All DPs so impacted	<ul style="list-style-type: none"> <li>▪ Indemnity for lost wages for the period required to re-establish business as determined through the Social Impact Assessment (SIA) and included in the RAP.</li> </ul>
Crops	Affected crops	Cultivator of crop	<ul style="list-style-type: none"> <li>▪ Crop compensation in cash at the full market rate for one year's agricultural income (both rabi and kharif harvests). If sharecropped or a tenant then compensated according to shares.</li> </ul>
Trees	All affected trees	Owner	<ul style="list-style-type: none"> <li>▪ Fruit trees: compensation to reflect income replacement as assessed by Horticulture department based on market value of annual produce, projected for number of years the tree can potentially produce fruit.</li> <li>▪ Timber trees: trees grown and/or used for timber then compensation is to reflect the market value of tree's wood content, based on the wood measurement survey of forest department.</li> </ul>
Relocation	Transport/transition costs	All DPs to be relocated	<ul style="list-style-type: none"> <li>▪ Provision of allowances to cover transport costs on actual cost basis at current market rates. If physical relocation of the affected households is required and requested by the displaced persons, appropriate relocation sites will be developed or through support provided to flood victims. The need for support during the transitional period will be assessed through the SIA and included in the RAP.</li> </ul>
Vulnerable DP livelihood support		Poor and female headed households and other vulnerable households, including the elderly, identified through the SIA.	<ul style="list-style-type: none"> <li>▪ Cash allowance equivalent to at least 12 months of minimum wages of PKRs 7000/- per month as fixed by the GOP (in accordance with figures released by the Province) using the poverty line index or as determined through the social impact assessment surveys.</li> <li>▪ First priority for skills training under emergency support. Job placement program employing DPs in project reconstruction activities.</li> <li>▪ All DPs and households are also eligible for government flood assistance cash support.</li> </ul>



<b>Assets lost</b>	<b>Specification</b>	<b>Displaced Person</b>	<b>Compensation Entitlements</b>
Unidentified Losses	Unanticipated impacts	All DPs	▪Dealt with as appropriate during sub-project implementation according to the WORLD BANK policy.

### **III. Procedure of Formulating a Land Acquisition and Resettlement Plan**

8. If resettlement impacts are unavoidable in implementing a subproject, the executing or implementing agency will formulate a land acquisition and resettlement plan in parallel with sub-project design according to the following procedure:

- Complete the screening checklist.
- Conduct focus group discussions including consultations with women and vulnerable households to (a) obtain stakeholder inputs regarding how to avoid or at least minimize involuntary resettlement, and to identify their needs and preferences; (b) establish the social and economic baseline to prepare the RAPs.
- Based on detailed design undertake (a) social impacts assessment (SIA), (b), census survey of DPs, (c) complete an inventory of lost land and assets of all DPs and addresses of households, (d) land demarcation and measurement surveys (LDMS), and (e) disclose resettlement information to all DPs in their own language.
- Prepare and disclose the RAPs to all DPs in their own language and keep copies of the documents at public offices; the project executing agency or concerned government will endorse the RAPs before submitting it MDTF and to World Bank for review.

### **IV Consultation Process**

8. The implementing agencies will ensure that all occupants of land and owners of assets located in a proposed subproject area are consulted. Community meetings will be held in each affected district and village. The consultations will identify their concerns and take into account special needs and considerations. Consultations will be gender inclusive and ensure vulnerable households are not excluded. The decisions of such meetings will be recorded, and these records will indicate the responsibility and timeline for implementing the decisions. Each resettlement plan will document all public consultations held and the disclosure of resettlement information. During RAP preparation, resettlement information will be disclosed to all DPs in their own language, and their views and opinions will be taken into consideration in finalizing the plans. Final RAPs will be translated into local languages and disclosed through public notices posted at implementing agency offices, published in newspapers, and posted on World Bank’s website. The DPs will be closely consulted in resettlement site selection and livelihood restoration, as relevant.

### **V. Complaints and Grievances**

9. Field level grievances will be addressed through a local grievance redress committee to be formally constituted for reconstruction activities that will have participation of DPs and EAs. The local grievance redress committee will be established at district level, which will comprise of all relevant stakeholders, including DP representatives and a local NGO/CBO. The

committees will function as open forums for raising objections and holding discussions to resolve conflicts. Each committee will record its deliberations and inform the concerned parties within 4 weeks of its findings and recommendations. Displaced persons may also appeal to the Ombudsperson established under the flood management program.

## **VI. Monitoring and Evaluation**

10. The RAP implementation for each sub-project will be monitored both internally and externally. The EAs/IAs with assistance of MC will carry out internal monitoring and provide periodical monitoring reports to World Bank. The frequency of reports will vary from sub-project to sub-project in accordance with the severity and magnitude of impacts. External monitoring will be required in cases where livelihood compensation has to be paid and section-by-section approach for RAP and civil works is adopted. The aim would be to identify cases where the mitigation measures and compensation are failing to support livelihoods, so that additional measures can be identified to prevent this happening, especially in sub-projects that will be implemented on a section-by-section basis. The external monitoring agency (EMA) will be hired under the MCs and frequency of external monitoring will be identified in each RAP depending on the scale and sensitivity of impacts. All monitoring reports will also be submitted to World Bank prior to mobilization of the civil works contractor.

11. The EMA will also assess the situation of affected vulnerable groups, including female headed households, with selection based upon consideration of appropriate socio-economic indicators and a review of the RAP implementation process. In the event that DPs will need to be relocated, the EMA will carry out a post-implementation evaluation of the RAP about a year after completion of a sub-project, in order to ascertain whether the objectives of the RAP were attained. The benchmark data of the socio-economic survey of DPs conducted during the preparation of RAP will be used to compare the pre and post-project conditions. The EMA will recommend appropriate supplementary assistance for the DPs should the outcome of the monitoring show that the objectives of the RAP have not been achieved.

## Attachment 4(i): INVOLUNTARY RESETTLEMENT SCREENING CHECKLIST

Name of Enumerator: \_\_\_\_\_ Date: \_\_\_\_\_  
 Province: \_\_\_\_\_ District: \_\_\_\_\_ Project: \_\_\_\_\_ Sector: \_\_\_\_\_  
 Project Categorization: A B C<sup>3</sup>

Potential Impacts	Yes	No	Expected	Remarks
Does the sub-project involve any physical construction work, i.e. rehabilitation, reconstruction or new construction? Specify in “remarks” column.				
Does the sub-project involve impacts on land, assets and people, if “Yes” try to quantify the impacts and check following items. If “No” impacts, explain the situation in “remarks” and move to section 2.				
<b>Potential impacts</b>				
<b>Land</b> (quantify and describe types of land in “remarks column”.				
Government or state owned land free of occupation (agriculture or settlement)				
Private land				
• Residential				
• Commercial				
• Agriculture				
• Communal				
• Others (specify in “remarks”).				
<b>Land-based assets:</b>				
• Residential structures				
• Commercial structures (specify in “remarks”)				
• Community structures (specify in “remarks”)				
• Agriculture structures (specify in “remarks”)				
• Public utilities (specify in “remarks”)				
• Others (specify in “remarks”)				
<b>Agriculture related impacts</b>				
• Crops and vegetables (specify types and cropping area in “remarks”).				
• Trees (specify number and types in “remarks”).				
• Others (specify in “remarks”).				
<b>Affected Persons (DPs)</b>				
• Number of DPs				
• Males				
• Females				
• Titled land owners				
• Tenants and sharecroppers				

Category A (significant impacts): 200 or more people physically displaced from housing or losing more than 10% of their productive assets (income generating). Category B: Impacts not significant, resettlement plan required. Category C: No impact, no further action required.

<b>Potential Impacts</b>	<b>Yes</b>	<b>No</b>	<b>Expected</b>	<b>Remarks</b>
• Leaseholders				
• Agriculture wage laborers				
• Encroachers and squatters (specify in remarks column).				
• Vulnerable DPs (e.g. women headed households, minors and aged, orphans, disabled persons and those below the poverty line). Specify the number and vulnerability in “remarks”.				
• Others (specify in “remarks”)				
<b>Section 2</b>				
Others (specify in “remarks”).				
Are there any tribal people, indigenous or other minority groups affected by land acquisition or project activities If “Yes” check the following items				
• Indigenous groups (specify groups in “remarks”). Describe nature of impacts				
• Tribal People (specify tribes in “remarks”). Describe nature of impacts				
• Minority groups (specify in “remarks”). Describe nature of impacts				

**Attachment 4(ii): Format to Document Contribution of Assets**

The following agreement has been made on..... day of.....  
between.....resident of .....(the Owner)  
and .....(the Recipient).

1. That the Owner holds the transferable right of  
.....hectares of land/structure/asset  
in.....

2. That the Owner testifies that the land/structure is free of squatters or encroachers and not subject to other claims.

3. That the Owner hereby grants to the Recipient this asset for the construction and development of .....for the benefit of the villagers and the public at large.

*(Either, in case of donation:)*

4. That the Owner will not claim any compensation against the grant of this asset.

*(Or, in case of compensation:)*

4. That the Owner will receive compensation against the grant of this asset as per the attached Schedule.

5. That the Recipient agrees to accept this grant of asset for the purposes mentioned.

6. That the Recipient shall construct and develop the.....and take all possible precautions to avoid damage to adjacent land/structure/other assets.

7. That both the parties agree that the.....so constructed/developed shall be public premises.

8. That the provisions of this agreement will come into force from the date of signing of this deed.

\_\_\_\_\_  
Signature of the Owner

\_\_\_\_\_  
Signature of the Recipient

Witnesses:

1. \_\_\_\_\_

2. \_\_\_\_\_  
(Signature, name and address)

## **Attachment 5: Protection of Cultural Property**

1. Cultural property include monuments, structures, works of art, or sites of significance points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.
2. The initial phase of the proposed emergency reconstruction operations pose limited risks of damaging cultural property since projects will largely consist of small investments in community infrastructure, reconstruction of existing structures, and minor public works. Nevertheless, the following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed and included in standard bidding documents as provided in **Attachment 6**.

### **Chance Find Procedures**

3. Chance find procedures will be used as follows:
  - (a) Stop the construction activities in the area of the chance find;
  - (b) Delineate the discovered site or area;
  - (c) Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Ministry in charge of Department of Archaeology and Museums take over;
  - (d) Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry of Culture immediately (within 24 hours or less);
  - (e) Responsible local authorities and the Ministry in charge of Department of Archaeology and Museums would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of the Department of Archaeology and Museums (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
  - (f) Decisions on how to handle the finding shall be taken by the responsible authorities and the Ministry in charge of Department of Archaeology and Museums. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
  - (g) Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry in charge of Department of Archaeology and Museums; and
  - (h) Construction work could resume only after permission is given from the responsible local authorities and the Ministry in charge of Department of Archaeology and Museums concerning safeguard of the heritage.

4. These procedures must be referred to as standard provisions in construction contracts, when applicable, and as proposed in **Attachment 6**. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed.

5. Relevant findings will be recorded in World Bank Project Supervision Reports (PSRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

## **Attachment 6: Safeguards Procedures for Inclusion in the Technical Specifications of Contracts**

### **I. General**

1. The Contractor and his employees shall adhere to the mitigation measures set down and take all other measures required by the Engineer to prevent harm, and to minimize the impact of his operations on the environment.
2. The Contractor shall not be permitted to unnecessarily strip clear the right of way. The Contractor shall only clear the minimum width for construction and diversion roads should not be constructed alongside the existing road.
3. Remedial actions which cannot be effectively carried out during construction should be carried out on completion of each Section of the road (earthworks, pavement and drainage) and before issuance of the Taking Over Certificate:
  - (a) these sections should be landscaped and any necessary remedial works should be undertaken without delay, including grassing and reforestation;
  - (b) water courses should be cleared of debris and drains and culverts checked for clear flow paths; and
  - (c) borrow pits should be dressed as fish ponds, or drained and made safe, as agreed with the land owner.
4. The Contractor shall limit construction works to between 6 am and 7 pm if it is to be carried out in or near residential areas.
5. The Contractor shall avoid the use of heavy or noisy equipment in specified areas at night, or in sensitive areas such as near a hospital.
6. To prevent dust pollution during dry periods, the Contractor shall carry out regular watering of earth and gravel haul roads and shall cover material haulage trucks with tarpaulins to prevent spillage.

### **II. Transport**

7. The Contractor shall use selected routes to the project site, as agreed with the Engineer, and appropriately sized vehicles suitable to the class of road, and shall restrict loads to prevent damage to roads and bridges used for transportation purposes. The Contractor shall be held responsible for any damage caused to the roads and bridges due to the transportation of excessive loads, and shall be required to repair such damage to the approval of the Engineer.
8. The Contractor shall not use any vehicles, either on or off road with grossly excessive, exhaust or noise emissions. In any built up areas, noise mufflers shall be installed and maintained in good condition on all motorized equipment under the control of the Contractor.



9. Adequate traffic control measures shall be maintained by the Contractor throughout the duration of the Contract and such measures shall be subject to prior approval of the Engineer.

### **III. Workforce**

10. The Contractor should whenever possible locally recruit the majority of the workforce and shall provide appropriate training as necessary.

11. The Contractor shall install and maintain a temporary septic tank system for any residential labor camp and without causing pollution of nearby watercourses.

12. The Contractor shall establish a method and system for storing and disposing of all solid wastes generated by the labor camp and/or base camp.

13. The Contractor shall not allow the use of fuelwood for cooking or heating in any labor camp or base camp and provide alternate facilities using other fuels.

14. The Contractor shall ensure that site offices, depots, asphalt plants and workshops are located in appropriate areas as approved by the Engineer and not within 500 meters of existing residential settlements and not within 1,000 meters for asphalt plants.

15. The Contractor shall ensure that site offices, depots and particularly storage areas for diesel fuel and bitumen and asphalt plants are not located within 500 meters of watercourses, and are operated so that no pollutants enter watercourses, either overland or through groundwater seepage, especially during periods of rain. This will require lubricants to be recycled and a ditch to be constructed around the area with an approved settling pond/oil trap at the outlet.

16. The contractor shall not use fuelwood as a means of heating during the processing or preparation of any materials forming part of the Works.

### **IV. Quarries and Borrow Pits**

17. Operation of a new borrow area, on land, in a river, or in an existing area, shall be subject to prior approval of the Engineer, and the operation shall cease if so instructed by the Engineer. Borrow pits shall be prohibited where they might interfere with the natural or designed drainage patterns. River locations shall be prohibited if they might undermine or damage the river banks, or carry too much fine material downstream.

18. The Contractor shall ensure that all borrow pits used are left in a trim and tidy condition with stable side slopes, and are drained ensuring that no stagnant water bodies are created which could breed mosquitoes.

19. Rock or gravel taken from a river shall be far enough removed to limit the depth of material removed to one-tenth of the width of the river at any one location, and not to disrupt the river flow, or damage or undermine the river banks.

20. The location of crushing plants shall be subject to the approval of the Engineer, and not be close to environmentally sensitive areas or to existing residential settlements, and shall be operated with approved fitted dust control devices.

## **V. Earthworks**

21. Earthworks shall be properly controlled, especially during the rainy season.

22. The Contractor shall maintain stable cut and fill slopes at all times and cause the least possible disturbance to areas outside the prescribed limits of the work.

23. The Contractor shall complete cut and fill operations to final cross-sections at any one location as soon as possible and preferably in one continuous operation to avoid partially completed earthworks, especially during the rainy season.

24. In order to protect any cut or fill slopes from erosion, in accordance with the drawings, cut off drains and toe-drains shall be provided at the top and bottom of slopes and be planted with grass or other plant cover. Cut off drains should be provided above high cuts to minimize water runoff and slope erosion.

25. Any excavated cut or unsuitable material shall be disposed of in designated tipping areas as agreed to by the Engineer.

26. Tips should not be located where they can cause future slides, interfere with agricultural land or any other properties, or cause soil from the dump to be washed into any watercourse. Drains may need to be dug within and around the tips, as directed by the Engineer.

## **VI. Historical and Archeological Sites**

27. If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:

- (a) Stop the construction activities in the area of the chance find.
- (b) Delineate the discovered site or area.
- (c) Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Department of Archeology and Museums and the responsible Ministry take over.
- (d) Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Department of Archeology and Museums and the responsible Ministry immediately (less than 24 hours).
- (e) Contact the responsible local authorities and the Department of Archeology and Museums and the responsible Ministry who would be in charge of protecting and preserving the site before deciding on the proper procedures to be carried out. This

would require a preliminary evaluation of the findings to be performed by the archeologists of the Department of Archeology and Museums and the responsible Ministry (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, including the aesthetic, historic, scientific or research, social and economic values.

- (f) Ensure that decisions on how to handle the finding be taken by the responsible authorities and the Department of Archeology and Museums and the responsible Ministry. This could include changes in the layout (such as when the finding is an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage.
- (g) Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Department of Archeology and Museums and the responsible Ministry ; and
- (h) Construction work will resume only after authorization is given by the responsible local authorities and the Department of Archeology and Museums and the responsible Ministry/department concerning the safeguard of the heritage.

## **VII. Disposal of Construction and Vehicle Waste**

28. Debris generated due to the dismantling of the existing structures shall be suitably reused, to the extent feasible, in the proposed construction (e.g. as fill materials for embankments). The disposal of remaining debris shall be carried out only at sites identified and approved by the project engineer. The contractor should ensure that these sites (a) are not located within designated forest areas; (b) do not impact natural drainage courses; and (c) do not impact endangered/rare flora. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.

29. In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such, debris or silt and restore the affected area to its original state to the satisfaction of the Supervisor/Engineer.

30. Bentonite slurry or similar debris generated from pile driving or other construction activities shall be disposed of to avoid overflow into the surface water bodies or form mud puddles in the area.

31. All arrangements for transportation during construction including provision, maintenance, dismantling and clearing debris, where necessary, will be considered incidental to the work and should be planned and implemented by the contractor as approved and directed by the Engineer.

32. Vehicle/machinery and equipment operations, maintenance and refueling shall be carried out to avoid spillage of fuels and lubricants and ground contamination. An "oil interceptor" will be provided for wash down and refueling areas. Fuel storage shall be located in proper bunded areas.

33. All spills and collected petroleum products shall be disposed of in accordance with standard environmental procedures/guidelines. Fuel storage and refilling areas shall be located at

least 300m from all cross drainage structures and important water bodies or as directed by the Engineer.

**VIII. HIV/AIDS Education**

34. The Contractor shall ensure that detection screening of sexually transmitted diseases, especially with regard to HIV/AIDS, amongst laborers is actually carried out and will submit a certificate of compliance.