

**National Solidarity Programme Phase Three (NSP III)****Operational Manual Version Six (OM VI)****ANNEX C: Environmental & Social Management Framework (ESMF)****Revised**

Note: From 15th November 2015 up to the end of the NSP III, the following ESMF will also apply for the new Sub-Program, the Maintenance Grants (MG), under the NSP III. It should be noted that the MG is proposed to only include repair and maintenance related works for existing infrastructure. (No new infrastructure construction is permissible. Exceptionally some clearance of snow and some food preparation for female headed households may also be allowed under the MG.) As such, the MG is not expected to entail significant environmental or social impacts. The social organizers and engineer hired under the MCG will work with the communities to ensure no negative environmental or social impacts. The communities have been informed of the ESMF under the regular NSP.

**Potential impacts of various components**

Activities envisaged under the project should not entail significant and negative environmental and social impacts, provided they are designed and implemented with due consideration of environmental and social issues. Rather, most subprojects envisaged under the project should contribute to improving environmental and social conditions in rural Afghanistan. Adverse impacts may arise due to depletion or degradation of natural resources such as stone, earth, water etc. used for construction of small-scale infrastructure. Construction activities may cause limited, temporary, and localized negative impacts: If the activities financed under IDA/WB are assessed by the relevant Facilitating Partners (FPs) and found to have potential large or medium scale environmental and social impacts, the relevant FPs shall prepare an Environmental and Social Mitigation Plan (ESMP) acceptable to the Association before the sub-project work can be financed.

The NSP's Environmental and Social Safeguards Officer will be required to ensure that all sub-projects with large and medium impacts have ESMP and are implemented properly by the contractors or CDCs in the project site.

Certain types of investments with negative environmental or social impacts cannot be undertaken and are included in a negative list of prohibited investments.

NSP sub-projects like schools, clinics, community centers, public baths and reservoirs would normally require land acquisition if there is no land already allocated for these facilities. Similarly sub-projects like water supply networks, power lines and power houses might potentially require minor pieces of land. In such cases, land could only be obtained through either private voluntary donations, compensation paid by the community (i.e. transaction between willing buyer-willing seller), or from available government land. Private voluntary donations and community purchases would be documented as required by the Framework, and for government land, documentation would be needed that the land is free of encroachments,

squatters or other encumbrances, and has been transferred to the project by the authorities. Land acquisition guidelines are provided in Attachment 1 and land acquisition form to be used for NSP sub-projects is provided in Attachment 2.

The design for the proposed project defines a strategy, which will ensure that all social groups are included as beneficiaries. The key elements of this strategy are (i) the project is national in scale and coverage, and consequently reaches all the country's different social groups, (ii) the facilitated participatory planning process at the community level includes an approach for election of Community Development Councils, which will provide for representation of all sub-groups in the community, (iii) both internal monitoring and external independent evaluation will assess the inclusiveness of Community Development Councils and thus provide information that would constitute the basis for corrective actions, if necessary, and (iv) independent monitoring by civil society (NGOs and the press) will provide another mechanism to identify cases where a certain social group would have been bypassed or marginalized.

Chance finds of cultural property (archaeological artifacts) during implementation of subprojects involving civil works will be reported to the provincial or district governors, who then will inform the Archaeological Committee.

Compliance with the safeguard policies and procedures and the negative list will be ensured through an environmental, social and mine risk screening procedure (checklists) required for subproject proposals, and by internal input, process, and output monitoring, independent external monitoring by consultants, and by Bank supervision missions.

### **Purpose of the Environmental and Social Management Framework**

Currently social and environmental management in Afghanistan is suffering from critical capacity constraints. Since there is potential for adverse environmental impacts, albeit limited, from the proposed activities under the NSP, their mitigation and management is key to the wholesome development of rural communities throughout Afghanistan. Hence, keeping in view the existing management capacity, as well as the flexibility required due to the demand-driven nature of the project, a framework approach is adopted. It provides for early identification of potential adverse impacts, without the requirement of rigorous analysis through quantification, and also provides broad guidance for their effective mitigation. Consistent with existing national legislation, the objective of the Framework is to help ensure that activities under the project will:

- Protect human health;
- Prevent or compensate any loss of livelihood;
- Prevent environmental degradation as a result of either individual subprojects or their cumulative effects;
- Enhance positive environmental and social outcomes; and,
- Ensure compliance with World Bank safeguard policies.

## **GENERAL PRINCIPLES**

Based on the experiences and lessons learnt from NSP I and NSP II and to adequately address the potential environmental and social impacts of infrastructure subprojects under NSP III, following are the general principles of this Framework:

1. The proposed project will support multiple subprojects, the detailed designs of which are not known at appraisal. To ensure the effective application of the World Bank's safeguard policies, the Framework provides guidance on the approach to be taken during implementation for the selection and design of subprojects, and the planning of mitigation measures.
2. All proposed subprojects will be screened (using Matrix 1, which includes environmental and social assessment checklists for various types of infrastructure subprojects) to ensure that the potential environmental and social risks can be adequately addressed through the application of standardized guidelines (using Matrix 2, which includes typical environmental and social mitigation measures for various types of infrastructure projects). It is to be noted, however, that in case an environmental or social impact is identified as per the Matrix 1, FPs are required to produce Environmental and Social Mitigation Plan (ESMP) which needs to be implemented, monitored and reported.
3. The design of the NSP aims at ensuring regional balance in terms of coverage of various social groups as well as gender equity with regard to decision making on subproject selection and project benefits. Employment opportunities within the projects will be available on an equal basis to all, on the basis of professional competence, irrespective of affiliation with any social group. In all projects which require consultations with local communities or beneficiaries, gender-separated consultations will be conducted to elicit the views of the female population, along with that of the male population; and,
4. Consultation and disclosure requirements will be simplified to meet the special needs of these operations. Prior to approval by the World Bank Board, this Environmental and Social Safeguards Framework will be disclosed in Afghanistan in Dari and Pashto.

### **Safeguard Screening**

Additionally, the selection, design, contracting, monitoring and evaluation of subprojects will be consistent with the following guidelines:

- A negative list of characteristics that would make a proposed subproject ineligible for support (Attachment 1);
- Guidelines for land and asset acquisition, entitlements and compensation (Attachment 2);
- Procedures for the protection of cultural property, including the chance discovery of archaeological artifacts, and unrecorded graveyards and burial sites (Attachment 3).
- Procedures for Mine Risk Management in World Bank-Funded Projects in Afghanistan
- Codes of Practice for Prevention and Mitigation of Environmental and Social Impacts

### **Mitigation measures**

Sound design will diminish to the extent possible, if not eliminate, most of the potential adverse impacts of project activities. Good Engineering design will, in most cases, have a positive impact on the environmental and social conditions in the project area. Construction and operation stage impacts will be addressed through a simplified Environmental and Social Management Plan (ESMP). The ESMP is provided in terms of measures identified in this ESMF such as the Attachments, Matrices and other provisions of this ESMF. Social and

environmental guidelines and codes of practice satisfactory to the Bank will need to be included in the Project's Operational Manual at all times.

### **Environmental and Social Guidelines for Communities, FPs and Contractors**

The following points shall be considered as part of the ESMF and included in the contractual agreements as appropriate:

- Installation of the work site in areas far enough from water points, houses and sensitive areas. Location of the work site shall be suitable and chosen in consultation with local community/CDCs as well as local authorities.
- Provision of sanitary equipment, and installations as appropriate
- Site regulation (Identification of what is allowed and what is not allowed on work sites)
- Compliance with laws, regulations and other permits in vogue.
- Hygiene and security on work sites
- Protect neighboring properties
- Ensure continuous traffic flow and accessibility of neighboring populations to roads during construction activities through a traffic management plan.
- Protect staff working on work sites through the implementation of a safety plan.
- Degradation/demolition of private properties: Inform and raise the awareness of the populations before any activity causing degradation of natural vegetation and resources. Compensate beneficiaries before any work.
- Use a quarry of materials according to the mining code requirements: The contractor will have to obtain pollution control permits from NEPA as per requirements of the Afghanistan Environmental Act and EIA regulations and also a permit from Ministry of Mines.
- Compensation planting in case of deforestation or tree felling. Complete environmental and social assessment will be needed if the proposed project is located in forest area e.g. provision or expansion of access road in forest area. Under such circumstances, both WB applicable policies and national laws and legislation must be considered.
- Signaling of works
- Respect of cultural sites. The stakeholders have to consider and comply with the following applicable laws and legislation:
  - OP 4.11 Physical Cultural Resources
  - Law on preservation of Afghanistan Cultural Heritage
- Dispose safely of asbestos
- As much as possible, use locally available materials of construction for increased sustainability.

### **Responsibilities for Safeguard Screening and Mitigation**

The overall responsibility of the project implementation rests with the Ministry of Rural Rehabilitation and Development (MRRD). The Environmental and Social Safeguards Unit (ESSU) of the Technical Support Department (TSD) of NSP will be responsible for overseeing the implementation of this ESMF. This unit comprises an ESS officer, an Environmental Focal Point and a Social Focal Point. ESS unit will be main point of contact with regards to all matters related to Environmental and Social Safeguards of NSP sub-projects.

The overall institutional framework for implementation of ESMF consists of ESS Unit at NSP HQ, ESS focal points at all NSP field offices and at all FPs field offices.

### **Capacity Building**

As part of the social and environmental capacity building that will be provided for implementation of IDA-financed operations in Afghanistan, the Environmental Social Safeguards Unit at NSP Headquarter and nominated focal points (both from NSP and FPs) at field levels will receive training in the application of the ESMF.

In order to build the capacity of the relevant staff to effectively implement this ESMF, further progress shall be made on the work already undertaken under NSP II. This will include finalizing the ESS training manual, holding training workshops for ESS focal points at NSP Provincial Management Units (PMUs) and Facilitating Partners (FPs). Simple training modules shall be prepared for CDCs, communities and Contractors. ESS trainings shall be conducted for CDCs and communities. It is also proposed to nominate ESS focal points and community levels. As part of the capacity building efforts, exposure visits abroad shall also be organized in order to learn and benefit from the experiences and achievements made by other programs.

All ESS training materials shall be translated into Pashto and Dari languages in order to increase its readability by the target audience at various levels.

During supervision of the proposed project, IDA will assess the implementation of the Framework, and if required will recommend additional strengthening.

Various topics to be covered in ESS trainings include but are not limited to the following:

- General overview of Environment
- Afghanistan Environment Law
- Importance of Environmental and Social Safeguards in infrastructure projects
- EIA techniques
- ESS checklists for various types of infrastructure subprojects
- Screening projects for environmental review
- Best environmental practices in design and implementation of projects
- Environmental and Social Mitigation Measures (ESMP), Implementation and Monitoring
- Project supervision
- Monitoring and evaluation
- Trainings on social safeguards including
  - Land acquisition/land management
  - Conflict management
  - Community level governance
  - Training on Physical Cultural Resources (PCR)

This ESMF, originally written in English, shall be translated in both Dari and Pashto and shall be made available at the World Bank's Info-shop.

### **Environmental and Social Monitoring**

The overall responsibility for enforcement of this ESMF rests with NSP. In order to ensure compliance, FPs will be tasked to regularly monitor the implementation of the Environmental and Social Safeguards during construction phase. Monitoring of the implementation of mitigation measures related to significant impacts during operation of sub-projects shall be mainly the responsibility of CDCs and communities. The community participatory monitoring shall be extensively used in this regard.

The PMU ESS focal points will also monitor sub-projects for ESMF compliance and supervising the work of FPs focal points. Similarly, the ESS Unit at TSD will also periodically conduct monitoring of subprojects as an overall overseeing institution.

Typical examples of monitoring plans are given in the table below.

**Table 1: Typical Examples of Monitoring Plan for the Operation of Different subprojects**

<b>Sub-project</b>	<b>Monitoring Indicators</b>	<b>Responsibility</b>	<b>Frequency</b>
Roads rehabilitation	<ul style="list-style-type: none"> <li>• Operating drainage Channels</li> <li>• No visible negative impacts on surrounding habitat</li> </ul>	<ul style="list-style-type: none"> <li>• FPs in close coordination with local community</li> </ul>	Semi-annual assessment
Improvement to Water Supply and Sanitation Facilities	<ul style="list-style-type: none"> <li>• Distribution network without leaks</li> <li>• No leakage or overflows of Manholes or drains</li> <li>• Water Quality Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• FPs in close coordination with local community</li> <li>• Ministry of Health and Ministry of Energy and Water</li> </ul>	Semi-annual assessment  Semi-annual assessment
Irrigation and drainage	<ul style="list-style-type: none"> <li>• Irrigation network without leaks</li> <li>• Drainage channels clean And properly maintained</li> <li>• Water quality parameters (pH, COD, BOD, SS)</li> </ul>	<ul style="list-style-type: none"> <li>• FPs in close coordination with local community</li> <li>• Testing by ministry of health &amp; Ministry of energy and water</li> </ul>	Semi annual assessment  Semi-annual assessment

Rehabilitation of schools	<ul style="list-style-type: none"> <li>• Toilet facilities clean and Functioning properly</li> <li>• Drinking water faucets clean and safe from contamination</li> </ul>	<ul style="list-style-type: none"> <li>• FPs in close coordination with local community and appropriator municipality</li> </ul>	Semi-annual assessment
Rehabilitation of Health centers	<ul style="list-style-type: none"> <li>• Medical waste separated in proper containers</li> <li>• Availability of guidelines for proper disposal of medical wasters</li> </ul>	<ul style="list-style-type: none"> <li>• Ministry of Health in close coordination with local community</li> </ul>	Semi-annual assessment
Maintenance grants	<ul style="list-style-type: none"> <li>• Repair and maintenance of existing sub-projects</li> </ul>	<ul style="list-style-type: none"> <li>• Social mobilizer and engineer</li> </ul>	once

### **Negative List of Subproject Attributes**

Subprojects with any of the attributes listed below will be ineligible for Block Grant Funding under the proposed NSP III.

<b>Attributes of Ineligible Subprojects</b>
<p>Involves significant conversion or degradation of critical natural habitats including, but not limited to, any activity within:</p> <ul style="list-style-type: none"> <li>• Ab-i-Estada Waterfowl Sanctuary;</li> <li>• Ajar Valley (Proposed) Wildlife Reserve;</li> <li>• Dashte-Nawar Waterfowl Sanctuary;</li> <li>• Pamir-Buzurg (Proposed) Wildlife Sanctuary;</li> <li>• Bande Amir National Park;</li> <li>• Kole Hashmat Khan (Proposed) Waterfowl Sanctuary.</li> </ul>
<p>Will significantly damage non-replicable cultural property, including but not limited to any activities that affect the following sites:</p> <ul style="list-style-type: none"> <li>• monuments of Herat (including the Friday Mosque, ceramic tile workshop, Musallah complex, Fifth Minaret, Gawhar Shah mausoleum, mausoleum of Ali Sher Navaii, and the Shah Zadehah mausoleum complex);</li> <li>• monuments of Bamiyan Valley (including Fuladi, Kakrak, Shar-I Ghulghular and Shahr-i Zuhak);</li> <li>• archaeological site of Ai Khanum;</li> <li>• site and monuments of Ghazni;</li> <li>• minaret of Jam;</li> <li>• mosque of Haji Piyada/Nu Gunbad, Balkh province;</li> <li>• stupa and monastery of Guldarra;</li> <li>• site and monuments of Lashkar-i Bazar, Bost;</li> <li>• archaeological site of Surkh Kotal.</li> </ul>
<p>Requires involuntary acquisition of land, or any resettlement of people.</p>

## **Attributes of Ineligible Subprojects**

Requires:

- equipment or materials that are included in the annual implementation plans by other agencies (e.g. by other government or NGO projects that are operating in the area);
- political campaign materials or donations in any form;
- weapons including (but not limited to), mines, guns and ammunition;
- chainsaws;
- pesticides, herbicides and other chemicals;<sup>1</sup>
- investments detrimental to the environment;
- motorized extraction of groundwater;<sup>2</sup>
- involuntary land acquisition under any conditions;
- construction, rehabilitation, or maintenance of any government office buildings;
- construction of new health clinics;
- payments of salaries to government servants or the salaries of the staff of government subsidized organizations;
- any activity on land that is considered dangerous due to security hazards or the presence of unexploded mines or bombs;
- any activity on land or affecting land that has disputed ownership, tenure or user rights.<sup>3</sup>
- any activity that will support drug crop production or processing of such crops.

## **Guidelines for Land and Asset Acquisition, Entitlements and Compensation**

### **I. Objectives**

Land acquisition will be kept to a minimum and no person will be involuntarily displaced under subprojects financed by the proposed NSP III. 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 reviewed carefully. No land or asset acquisition may take place outside of these guidelines. A format for Land Acquisition Assessment is attached as Attachment 2(i).

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

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<sup>1</sup> Exceptions may be considered based on an assessment by the NSP (with specialized consultant assistance, if required, and after no objection from IDA) in special situations such as eradication of infestations of locusts or sen pest.

<sup>2</sup> Indiscriminate installation of irrigation wells using motorized extraction of ground water have in some areas contributed to lower the ground water table, and constitute a threat to the traditional sustainable irrigation by *karez*. Until water resource assessments of a particular catchment area or basin has been undertaken and has established that irrigation is feasible, investments in motorized irrigation wells is not permitted.

<sup>3</sup> Thus, investments involving an expansion of the command area of an irrigation system can only take place with agreement from the owners (or users in case of tribal common land) of the land brought under new irrigation.

## **II. Eligibility**

PAPs are identified as persons whose livelihood is directly or indirectly affected by the project. PAPs deemed eligible for compensation are:

- (1) those who have formal legal rights to land, water resources or structures/buildings, including recognized customary and traditional rights;
- (2) those who do not have such formal legal rights but have a claim to usufruct right rooted in customary law;
- (3) those whose claim to land and water resources or building/structures do not fall within (1) and (2) above, are eligible to assistance to restore their livelihood.

## **Acquisition of Productive Assets and Compensation**

PAPs are eligible for replacement costs for lost assets as described below:

- a. *Voluntary contributions.* In accordance with traditional practices, individuals may elect to voluntarily contribute land or assets and/or relocate temporarily or permanently from their land without compensation.
- b. *Contributions against compensation.* A contributor/asset loser considered "affected" will be eligible for compensation from the local community or alternatively from the Government. A PAP shall lodge his/her claim for compensation to the local community representatives/shura head and it shall be verified by the implementing agency. The claim shall be lodged within 2 weeks of completion of the consultations with the concerned community, and before project implementation begins.

Voluntary contribution, or contribution against compensation, should be documented. The documentation should specify that the land is free of any squatters, encroachers or other claims. A format is attached in Attachment 2(i), which includes a Schedule to be followed to assess any compensation claimed and the agreement reached.

## **III. Compensation Principles**

The project implementing agencies shall ensure that any of the following means of compensation are provided in a timely manner to affected persons:

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

- d. other acceptable in-kind compensation;
  - e. in case of cash compensation, the delivery of compensation should be made in public, i.e. at the Community Meeting.
- (2) Project affected persons 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 (1) a-d above.

### ***Consultation Process***

The implementing agencies will ensure that all occupants of land and owners of assets located in a proposed subproject area are consulted. There will be gender-separate community meetings for each affected *mantaqa/gozar* (urban infrastructure) or village (other projects) to inform the local population about their rights to compensation and options available in accordance with these Guidelines. The minutes of the community meetings shall reflect the discussions held, agreements reached, and include details of the agreement, based on the format provided in Attachment 2(ii).

The implementing agency shall provide a copy of the Minutes to affected persons and confirm in discussions with each of them their requests and preferences for compensation, agreements reached, and any eventual complaint. Copies will be recorded in the posted project documentation and be available for inspection during supervision.

### **Subproject Approval**

In the event that a subproject involves acquisition against compensation, the implementing agency shall:

- a. not approve the subproject unless a satisfactory compensation has been agreed between the affected person and the local community;
- b. not allow works to start until the compensation has been delivered in a satisfactory manner to the affected persons;
- c. if more than 200 persons are affected and require compensation, the subproject shall be deemed ineligible for support under the emergency reconstruction operations.

### **Complaints and Grievances**

All complaints should first be negotiated to reach an agreement at the local community/village level. If this fails, complaints and grievances about these Guidelines, implementation of the agreements recorded in the Community Meeting Minutes or any alleged irregularity in carrying out the project can also be addressed by the affected persons or their representative at the municipal or district level. If this also fails, the complaint may be submitted to the relevant implementing agency for a decision. The same procedure applies to the Maintenance Grants.

### **Verification**

The Community Meeting Minutes, including agreements of compensation and evidence of compensation having been made shall be provided to the Municipality/district, to the supervising engineers, who will maintain a record hereof, and to auditors and socio-economic monitors when they undertake reviews and post-project assessment. This process shall be specified in all relevant project documents, including details of the relevant authority for complaints at municipal/district or implementing agency level.

### **Protection of Cultural Property**

Physical culture includes monuments, structures, works of art, or sites of "outstanding universal value" from the historical, aesthetic, scientific, ethnological, or anthropological point of view, including unrecorded graveyards and burial sites. Within this broader definition, cultural property is defined as sites and structures having archaeological, paleontological, historical, architectural, or religious significance, and natural sites with cultural values.

The proposed emergency reconstruction operations are unlikely to pose a risk of damaging cultural property, as the subprojects will largely consist of small investments in community infrastructure and income generating activities, reconstruction of existing structures, and minor urban public works. Further, the negative list of attributes, which would make a subproject ineligible for support (Attachment 1), includes any activity that would significantly damage non-replicable cultural property. Nevertheless, the following procedures for identification, protection from theft, and treatment of chance finds should be followed and included in standard bid documents.

### **Chance Find Procedures**

Chance find procedures are defined in the law on Maintenance of Historical and Cultural Monuments (Official Gazette, December 21, 1980), specifying the authorities and responsibilities of cultural heritage agencies if sites or materials are discovered in the course of project implementation. This law establishes that all moveable and immovable historical and cultural artifacts are state property, and further:

1. The responsibility for preservation, maintenance and assessment of historical and cultural monuments rests with the Archaeological Committee under the Ministry of Information and Culture, which has representation at provincial level.
2. Whenever chance finds of cultural or historical artifacts (moveable and immovable) are made the Archaeological Committee should be informed. Should the continuation of work endanger the historical and cultural artifacts, the project work should be suspended until a solution is found for the preservation of these artifacts.
3. If a moveable or immovable historical or cultural artifact is found in the countryside of a province, the provincial governor (*wali*) or district-in-charge (*woluswal*) should be informed within two weeks, and they should inform the Archaeological Committee. In case the immovable historical or cultural artifact is found in a city, the provincial branch of the Department of Maintenance of Historical Values of the Ministry of Information and Culture should be informed within two weeks (art. 18). If the find is made within the

center, the Archaeological Committee must be informed directly within one week (art. 25).

4. Failure to report a chance find within the stipulated time limit will be punished with a fine or imprisonment for a period of one week or up to one month (art. 72).
5. If someone intentionally damages a historical or cultural artifact, the culprit shall pay compensation in accordance with the value of the artifact plus be imprisoned for a period of one month to ten years depending on the gravity of the crime (art. 71).

In case of a chance find of moveable or immovable historical or cultural artifact, the implementing agency is responsible for securing the artifact from theft, pilferage and damage until the responsibility has been taken over by the relevant authorities as specified above.

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

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 resources mitigation, management, and capacity building activities, as appropriate.

### **Menu of mitigation measures for NSP III**

Part A: Subprojects related to Irrigation and Watershed Management structures (Rehabilitation / construction of water retaining structures, rehabilitation / construction of new drains, erosion protection, etc.)

Sub-part (i) Construction Phase

Potential Impacts	Mitigation Measure(s) Identified	Implementation Arrangements	
		Execution	Supervision
Downstream water availability	Maintain flow required for downstream uses (drinking, other domestic, industry, hydropower, etc.)	Contractor <sup>4</sup>	FPs, CDCs, NSP Safeguards Unit
Waterlogging	Construct improved lining of canals	Contractor	FPs, CDCs, NSP Safeguards Unit
Increased Salinity	Meticulous provision of drainage as per design or directions of FPs,	Contractor	FPs, CDCs, NSP Safeguards

<sup>4</sup> This can be individual, group of individuals or firm preferably local but not necessarily

Potential Impacts	Mitigation Measure(s) Identified	Implementation Arrangements	
		Execution	Supervision
	CDCs, NSP Safeguards Officer		Unit
Local erosion, dust	<p>Ensure sufficient channel section is available for flow during construction</p> <p>Spray water on exposed surfaces (material piles, freshly cut slopes, etc.)</p> <p>Cover the material during transportation</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>	<p>FPs, CDCs, NSP Safeguards Unit</p> <p>FPs, CDCs, NSP Safeguards Unit</p> <p>FPs, CDCs, NSP Safeguards Unit</p>
Stream morphology and regime change	Careful construction with a view to limit change to stream morphology and regime change to the minimum	Contractor	FPs, CDCs, NSP Safeguards Unit
Disposal of sediment accumulated in channels/structures	<p>No disposal of spoils on fertile lands</p> <p>Secure written permission of the owner before disposal can begin</p> <p>Use of some material from dredging for liming of nearby acidic soils</p> <p>Alternatively, consider use of sediment as part of rehabilitated embankment</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>	<p>FPs, CDCs, NSP Safeguards Unit</p> <p>FPs, CDCs, NSP Safeguards Unit</p> <p>FPs, CDCs, NSP Safeguards Unit</p>

Potential Impacts	Mitigation Measure(s) Identified	Implementation Arrangements	
		Execution	Supervision
			Unit
Drainage of water bodies	Minimise drainage of water bodies acting as habitat	Contractor	FPs, CDCs, NSP Safeguards Unit
Incidence of diseases such as Dengue, Malaria, etc.	Proper drainage of the area	Contractor	FPs, CDCs, NSP Safeguards Unit

### Sub part (ii) Operation Stage

Potential Impacts	Mitigation Measure(s) Identified	Implementation Arrangements	
		Execution	Supervision
Downstream water availability	Appropriate operation of dams	WUA <sup>5</sup> or Mirab	Community/CDC
Flood regime	Appropriate operation of dams	WUA or Mirab	Community/CDC
Waterlogging	Increase efficiency of operation of the system  Match supply with requirement of water users	WUA, Mirab  WUA, Mirab	Community/CDC  Community/CDC
Less dilution of discharges from settlements	Maintain minimum flow as required	WUA, Mirab	Community/CDC
Pesticide / Toxic compounds	Encourage alternative cropping techniques to avoid monocultures which are more dependent on pesticides for high yields	WUA, Mirab	Community/CDC

<sup>5</sup> WUA = Water Users' Association (to be confirmed/strengthened/established)

Potential Impacts	Mitigation Measure(s) Identified	Implementation Arrangements	
		Execution	Supervision
Excess nutrient concentration / Eutrophication	Disseminate good practices for efficient utilization of fertilizers	WUA, Mirab	Community/CDC
Increased Salinity	Management techniques that can be employed include: leaching, altering irrigation methods and schedules, installing sub-surface drainage, changing tillage techniques, adjusting cropping patterns, and adding soil ameliorates (costly)	WUA, Mirab	Community/CDC
Changes in Structure of soil	Liming or spread of Gypsum for reversing the sodic conditions	WUA, Mirab	Community/CDC
Saline drainage	Avoid salt concentration increase by providing 10-20% extra water, if available	WUA, Mirab	Community/CDC
Stream morphology and regime change	Systematic operation of sediment exclusion structures, if any.	WUA, Mirab	Community/CDC
Drainage of water bodies	Protect water bodies acting as habitat	WUA, Mirab	Community/CDC
Use of water canals as wastewater drains	Allow partial use, if risks are not very high	WUA, Mirab	Community/CDC
Incidence of diseases such as Dengue, Malaria, etc.	Maintain proper drainage of the area	WUA, Mirab	Community/CDC
	Periodic flushing of the canals	WUA, Mirab	Community/CDC
	Liaison with health authorities on early warning sign communication	CDC	NSP-MRRD
Resettlement	Compensate as per the Entitlement framework for the project	FP, CDC	NSP-MRRD
Safety (especially of children and vulnerable groups)	Maintain provided signages and barriers such as fencing	FP, CDC	NSP-MRRD
Pests / Weeds	Use integrated pest management techniques to prevent harm by pests/weeds	FP, CDC	NSP-MRRD

Part B: Subprojects related to community infrastructure construction (School, community hall, market sheds, etc.)

**Sub-part (i) Construction stage**

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Land and/or property acquisition	Voluntary donation, willing buyer-willing seller, or government land without encumbrances only or procedure to be followed as per Attachment 1 to Environmental and Social Management Framework (ESMF)	CDC	NSP-MRRD
Removal of vegetation	<input type="checkbox"/> Planting saplings as compensation @ 2 saplings for each tree felled. This must be done after the construction activities have been completed on site. Alternatively, planting must be done well in advance of beginning of construction so that the trees have grown strong enough to resist accidental hits during movement of construction equipment	CDC	NSP-MRRD
Damage to cultural / archaeological sites/properties	Avoid sites where such properties are located. If by chance, any such location is found, adopt procedure as per Attachment 3 to the ESMF	Contractor	CDC
Dust generation during construction activities	<input type="checkbox"/> Provide temporary enclosures to the site using GI sheets and poles <input type="checkbox"/> Provide cover on trucks carrying construction material. <input type="checkbox"/> Provide protective masks for workers <input type="checkbox"/> Sprinkle water within site, especially on windy days	Contractor	CDC

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Increased Noise due to construction activities	<ul style="list-style-type: none"> <li>❑ Avoid noise generating activities during particular periods – times of prayers, school hours, etc.</li> <li>❑ Discontinue all operations during night except if concreting requires work to continue during the night.</li> <li>❑ Provide ear plugs to construction workers manning noisy equipment.</li> <li>❑ Consider provision of noise barriers by landscaping, tree plantation or even double-glazing.</li> </ul>	Contractor	CDC

PART C: Subprojects related to transport infrastructure (roads, culverts, small bridges, etc.)

**Sub-part (i) Construction Phase**

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Land acquisition	Voluntary donation , willing buyer-willing seller, or government land without encumbrances only or procedure to be followed as per Attachment 1 to Environmental and Social Management Framework (ESMF)	CDC	NSP-MRRD
Severance of properties or land	Voluntary donation, willing buyer-willing seller, or government land without encumbrances only or procedure to be followed as per Attachment 1 to Environmental and Social Management Framework (ESMF)	CDC	NSP-MRRD
Damage to cultural / archaeological sites/properties	Avoid sites where such properties are located. If by chance, any such location is found, adopt procedure as per Attachment 3 to the ESMF	Contractor/ Community	NSP-MRRD
Increased landslides during and after construction	Provide vegetative protection as far as possible on the uphill sides. Use ‘hard’ engineering structural solutions as last resort	Contractor/ Community	NSP-MRRD

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Pollution due to dust and asphalt during construction activities	<ul style="list-style-type: none"> <li>❑ Provide temporary enclosures to the site using GI sheets and poles</li> <li>❑ Provide cover on trucks carrying construction material.</li> <li>❑ Provide protective masks for workers</li> <li>❑ Sprinkle water within site, especially on windy days</li> </ul>	Contractor/ Community	NSP-MRRD
Risk of accidents involving hot material, pollution of water courses and agricultural lands	<ul style="list-style-type: none"> <li>❑ Provide adequate signages and fencing around the site.</li> <li>❑ Train workers to follow safety instructions.</li> <li>❑ Prepare contingency plans for spillages, and carry out mock drills.</li> <li>❑ Provide adequate notice of site/road closures to locals.</li> <li>❑ Provide adequate detours around construction areas.</li> </ul>	Contractor/ Community	NSP-MRRD
Pollution from ancillary activities like preparation of asphalt, crushing of aggregate, concrete mixing, etc.	<ul style="list-style-type: none"> <li>❑ Locate the hotmix plant at least 500m away from habitation</li> <li>❑ Locate crushers and concrete batching plants at least 100m from habitation</li> <li>❑ Provide and operate emission control devices like ESP or wet venturi scrubber</li> <li>❑ Provide dust control devices on crushers and concrete batching plants</li> </ul>	Contractor/ Community	NSP-MRRD
Increased erosion downstream of channels being crossed	<ul style="list-style-type: none"> <li>❑ Prevent direct discharge from site with a fall of more than 0.6m.</li> <li>❑ Avoid spilling construction material and waste into the channel. This will prevent reduction in section of the channel and hence erosion.</li> </ul>	Contractor/ Community	NSP-MRRD
Disruption of aquatic ecosystem during construction due to excessive sediment, discharge of waste concrete or accidental spillage of oil & grease	<ul style="list-style-type: none"> <li>❑ Prepare and implement spill prevention plan for the site.</li> <li>❑ Train staff to handle spillage of material and affected sections of stream.</li> </ul>	Contractor/ Community	NSP-MRRD

**Sub-part (ii) Operation Stage**

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Noise due to increased traffic	Provide for silence zones near sensitive receptors – clinics, schools, mosques	FP, CDC	NSP-MRRD
Increased risk of accidents due to increased and faster traffic	<ul style="list-style-type: none"> <li>❑ Provide adequate signages and speed control within settlements</li> <li>❑ Provide adequate RoW from planning stage itself.</li> <li>❑ Protect this RoW using appropriate devices – notification, planting in area currently not used for the road, fencing, etc.</li> </ul>	FP, CDC	NSP-MRRD
Severance of wildlife habitat which may have established during years of neglect	Provide additional pathways for movement of fauna, including some of the bridges or culverts	FP, CDC	NSP-MRRD

PART D: Subprojects related to water supply (community ponds, open wells, dug wells with hand pumps, piped supply or gravity schemes, etc.)

**Sub-part (i) Construction Phase**

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Land and property acquisition	Voluntary donation, willing buyer-willing seller, or government land without encumbrances only as per procedure to be followed as described in Attachment 1 to Environmental and Social Management Framework (ESMF)	CDC	NSP-MRRD
Submergence of new areas	Identify areas which are currently not in productive use. Procedure to be followed as described in Attachment 1 to Environmental and Social Management Framework (ESMF)	CDC	NSP-MRRD
Damage to cultural / archaeological sites/properties	Avoid sites where such properties are located. If by chance, any such location is found, adopt procedure as per Attachment 3 to the ESMF	Contractor	NSP-MRRD

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Safety hazards during construction	<ul style="list-style-type: none"> <li>❑ Provide where feasible personal protective equipment such as masks, hard hats and ear plugs to all workers.</li> <li>❑ Prepare and implement a safety plan for the entire operation</li> </ul>	Contractor	NSP-MRRD
Visual blight and dirt due to improper disposal of material	<ul style="list-style-type: none"> <li>❑ Dispose of the dirt and other excavated at designated locations only.</li> <li>❑ Explore the possibility of disposing of tank bottom silt on farms as it can work as soil conditioner</li> </ul>	Contractor	NSP-MRRD

### Sub-part (ii) Operation Stage

Potential Impacts	Mitigation Measures	Implementation Arrangements	
		Execution	Supervision
Increased breeding of mosquito in case of inadequate drainage near water abstraction point / locations	<ul style="list-style-type: none"> <li>❑ Design for proper drainage and raise awareness among users and CDC.</li> <li>❑ .</li> </ul>	FP, CDC	NSP-MRRD
Pollution of water from leaves, dust and other nuisance due to open surface	<ul style="list-style-type: none"> <li>❑ Cover the well whenever possible. Preferably use hand pumps on dug wells</li> <li>❑ Use alum or other appropriate coagulant before supplying water.</li> </ul>	FP, CDC	NSP-MRRD
Unnoticed contamination by wastes in case of faulty layout	Periodically inspect/test the quality of water supply and wastewater collection networks.	FP, CDC	NSP-MRRD