

# INTEGRATED SAFEGUARDS DATA SHEET

## APPRAISAL STAGE

**Report No.: ISDSA1197**

**Date ISDS Prepared/Updated:** 03-Jun-2015

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### I. BASIC INFORMATION

#### 1. Basic Project Data

<b>Country:</b>	Bangladesh	<b>Project ID:</b>	P149734
<b>Project Name:</b>	BD River Management Improvement Program - Phase I (P149734)		
<b>Task Team Leader(s):</b>	Abedalrazq F. Khalil		
<b>Estimated Appraisal Date:</b>	29-Jun-2015	<b>Estimated Board Date:</b>	19-Nov-2015
<b>Managing Unit:</b>	GWADR	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Flood protection (80%), General water, sanitation and flood protection sector (5%), General agriculture, fishing and forestry sector (15%)		
<b>Theme(s):</b>	Water resource management (40%), Rural services and infrastructure (15%), Other environment and natural resources management (15%), Other rural development (20%), Natural disaster management (10%)		
<b>Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?</b>			No
<b>Financing (In USD Million)</b>			
Total Project Cost:	650.00	Total Bank Financing:	600.00
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			50.00
International Development Association (IDA)			600.00
Total			650.00
<b>Environmental Category:</b>	A - Full Assessment		
<b>Is this a Repeater project?</b>	No		

#### 2. Project Development Objective(s)

The overall program (RMIP) development objective is to reduce the adverse impacts of flooding and erosion along the Brahmaputra right embankment, enhance its sustainable management, and improve transport connectivity of the subregion.

The project-specific (RMIP-I) development objective is to increase protection against river flooding and erosion and improve flood and erosion management capacity along selected sections of the Brahmaputra River.

### 3. Project Description

The proposed project (RMIP-1) is the first phase of the three-phase RMIP, with each phase spanning approximately six years. See subsection C: Series of Project Objective and Phases. The first two phases will improve overall flood and erosion management control through civil works, institutional strengthening, and strategic planning for river management. The third phase will improve transport through the development of an access-controlled road on the embankment.

RMIP-I or Phase I will specifically focus on improving flood and erosion control within a designated area, the priority reach. The priority reach is approximately 50 km, stretching from Simla to Hasnapara, and is exposed to high rates of erosion. It has been selected based on technical, environmental, social, economic, and geographic criteria. The RMIP-I project further consists of four components. There are:

Component A: Rehabilitation and Improvement of Brahmaputra River Embankment Scheme (US \$465 million). This component will consist of the civil works required for embankment rehabilitation and associated riverbank protection works. This component includes the following subcomponents:

- Subcomponent A1: Embankment Rehabilitation and Improvement (US\$200 million). This subcomponent aims to increase community resilience to flooding by financing the following activities: (a) systematic strengthening and rebuilding of existing degraded embankments and (b) repairing and upgrading the associated drainage. In total, 50 km of embankment will be rehabilitated or reconstructed under this component. This will also include construction of four fish passes and two regulators.
- Subcomponent A2: Bank Protection and Revetment (US\$265 million). This subcomponent aims to increase community resilience to riverbank erosion and provide increased protection against embankment breaches due to river attacks. It is estimated that 36 km of riverbank protection will be strengthened and newly constructed to cover priority areas that are likely to endanger the stability of the embankment.

Component B: Implementation of Social and Environmental Management Plans (US\$100 million). This component will implement planned social and environmental programs to mitigate the social and environmental risks in the project, including resettlement, and provide development assistance to local communities in the project area.

- Subcomponent B1: Social and Resettlement Management Plan (US\$85 million). The aim of the SAP is twofold: (a) to mitigate the adverse social impacts and improve the living standard of those affected and (b) to promote local area development through development assistance to communities along the embankments. The proposed civil works will require land acquisition of 370 ha and relocation of a large number of households living on and along the existing embankments. Total affected households/units, including those on the embankment, are 5,751 (23,584 persons). The SAP plans (a) compensation for lost assets, resettlement, and livelihood restoration for the population affected by the project; (b) gender and public health action plans; (c) a communication strategy, grievance redress mechanism, and a plan for ongoing stakeholder engagement; and (d) local development assistance to communities along the embankment.
- Subcomponent B2: Environmental Management Plan (US\$15 million). All construction-related environmental issues will be addressed in the construction contracts; thus, the cost of such

measures is included in Component A. This subcomponent will include those aspects which are not or cannot be covered under construction contracts, including measures addressing indirect and cumulative impacts, development, and implementation of programs for ecological conservation, and costs associated with monitoring and supervising implementation of the EMP. This will also support the development of independent Environmental and Social Assessments for the remaining embankment improvement and riverbank protection works planned for Phase II, as well as for the access-controlled highway planned for Phase III.

Component C: Institutional Strengthening, Capacity Building of the BWDB, Technical Assistance and Training, and Future Project Preparation and Strategic Studies (US\$40 million). This component will finance consulting services and technical assessments to strengthen the strategic management and ongoing O&M of the flood and erosion protection schemes as well as the preparation of subsequent phases of the RMIP Program. This includes the following subcomponents:

- Subcomponent C1: Strengthening of the BWDB, Independent Panel of Experts, and Technical Assistance (US\$20 million). This subcomponent will build the capacity of the BWDB in carrying out effective O&M programs of the embankment scheme and the associated riverbank revetment and road. This will also aim to improve O&M divisions and monitoring cells (that is, Sirajganj, Sariatkandi, Gaibandha, Kurigram, and Bahadurabad) through office upgrading, capacity building, and modern survey equipment to support timely embankment O&M. This subcomponent will also support the development of an EAMS. It will also support the recruitment of an independent panel of experts (IPOE) to provide expert technical advice necessary for efficiently and effectively addressing the flooding, river control, economic and social impacts, and other project-related issues as well as provide the BWDB with long-term strategic planning regarding river management. This will also support small scale physical hydraulic response sediment models to better capture river response for improved river management.
- Subcomponent C2: Future Project Preparation and Strategic Studies (US\$20 million). This subcomponent will support strategic studies to address technical, financial, or management issues; mitigation measures; pilot projects; and preparation of future projects that may be identified during project implementation and agreed upon with the Bank. For example, this subcomponent will finance (a) strategic studies, including continuous updating of the assessment/master plan to look into river restoration, flood control schemes, Kurigram area development, and river navigation and other preparatory studies for the subsequent phases of the RMIP; (b) a subregional-level transport master plan study to assess the potential of establishing an integral intermodal transport network and freight and passenger movement on the proposed highway; and (c) a transaction advisory study to explore various financing options, including a revenue-generating public-private partnership (PPP) framework for developing the highway on the river embankment.

Component D: Project Management Support, Construction Supervision, Monitoring and Evaluation of the Project Impacts, and Social and Environmental Management Plan (US\$45 million). This component will cover consulting services for project implementation. This includes the following subcomponents:

- Subcomponent D1: Construction Supervision and Implementation Support (US\$30 million). This subcomponent will cover the cost of consulting and other services for the project implementation. It will finance consulting services for (a) surveys, designs of remaining embankment improvement to be included in the project for about 130 km and (b) construction supervision of civil works. It will also cover implementation of all activities under the project, including procurement, contract administration, quality control, certification of payments, financial management (FM), preparation of any additional designs, and bidding documents.
- Subcomponent D2: Third-party Monitoring and Evaluation of Project and Supervision of

EMP, SAP, RAP (US\$5 million). This subcomponent aims at ensuring effective project monitoring and evaluation (M&E). It will finance consulting services for continuous monitoring of project activities and providing feedback to the government and the implementing agency on the project's performance. This includes supervising the implementation of the Governance and Accountability Action Plan (GAAP), SAP, EMP and RAP. This will be provided through third-party assessment and monitoring of key aspects of project/program implementation.

- Subcomponent D3: Project Management Support and Audit (US\$10 million). This subcomponent will support the BWDB in implementing project-related activities, including support for operation of the Project Management Unit (PMU), capacity building, and incremental allowances for project's staff, operational cost, and audits.

#### **4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The 50 km priority reach of the BRE, which is the focus of investment under the proposed project, extends from Simla to Hasnapara, along the right bank of the Jamuna River. The overall RMIP program's impact area falls within nine upazilas in three districts. The priority area belongs to four upazilas namely, Kazipur, Sirajganj Sadar, Sariakandi and Dhunat. The total estimated population of all upazilas within the program area is 2.9 million, and within the RMIP-1 priority reach is 1.4 million. The average population density of the project upazilas (1,078 persons per sq. km) is similar to that of the country as a whole.

The physiography in this area is dominated by characteristics of the braided Jamuna River with meandering channels, chars (shoals) and alluvial floodplains. The flood plain areas are extensively cultivated and also densely populated. The major tributaries of the Jamuna passing through the project influence area are Bengali, Ichamati and Hurasagar. There are also several small rivulets (known as khals) that crisscross the floodplains. These khals were once connected with the Jamuna, but lost their connectivity after the construction of the original BRE. Beels (depressions in the floodplains which act as wetlands) are the other major water bodies in the project area. The connectivity of river and floodplain wetlands is important for migratory fish, including carps, which are significant to local fisheries. Connecting khals between the Jamuna and other water bodies are vital for sustaining successful fish migration at different seasons. Currently the fish migratory routes are blocked by the BRE which has resulted in a great loss of floodplain and river fisheries and the traditional livelihoods of fishermen.

The Jamuna River supports a wealth of aquatic biodiversity, and chars provide habitat for migratory birds. About 17% of total species recorded in Bangladesh occur in the project area. There are no legally designated protected areas in the project influence area; however, the Jamuna harbors some excellent habitats for the endangered Ganges River Dolphin and wintering grounds of many migratory birds. The Softshell Peacock Turtle is another present endangered species which nests in the chars. Embayments on the downstream of chars (known as kholes) offer breeding habitat of many fish species and are known areas of conservation significance. Eight kholes are identified in the priority reach. The terrestrial ecosystem in the project influence area is dominated by the agricultural landscape and homestead areas. There is no riparian vegetation due to ongoing erosion of river banks.

Socio-economic surveys of the project area show high rates of poverty, with nearly half of all households below the Bangladesh poverty line of 6,367 BDT (about 80 USD) per month. The majority of households make their income through day labor, mostly in agriculture or construction



## 5. Environmental and Social Safeguards Specialists

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6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project activities will involve major civil works, including reconstruction and rehabilitation of 50km of the existing Brahmaputra Right Embankment (BRE), and accompanying riverbank protection works (revetments), to protect against flooding. Given that these works have the potential for significant impacts that are sensitive and diverse, the project is classified as Category “A” as per OP 4.01. A detailed Environmental Impact Assessment (EIA) has been carried out for the priority reach, which also includes a Cumulative Impact Assessment. The EA package also includes an Executive Summary (in both English and Bengali), a preliminary Environmental Baseline for the full program area of influence, and an Environmental Management Framework (EMF) outlining EIA requirements for investment activities planned for subsequent phases of the program. The project’s international Panel of Experts, convened by BWDB to provide advice and guidance on the program’s development, furthermore includes expertise on environmental and social aspects.
Natural Habitats OP/BP 4.04	Yes	The activities under the proposed project could potentially alter natural habitats; therefore this policy is triggered. The Brahmaputra/Jamuna river has rich aquatic biodiversity and provides wintering grounds for migratory birds, and inland water bodies including beels and khals also provide important habitat and breeding areas for fish. The construction of revetments along the riverbank, as well as sand extraction for embankment construction, will have direct impacts on aquatic and riparian habitats. Long-term changes to river morphology may also have some effect on adjacent chars. Habitat restoration and enhancement measures will be included in the project to mitigate and or compensate adverse impacts on natural habitats, in accordance with this policy. The embankment design will also include multiple fish passes and regulators to facilitate fish migration and ecological connectivity between the Jamuna and the inland beels and

		khals.
Forests OP/BP 4.36	No	The project will not affect existing forests. Tree plantations will be planted along the embankment post construction for purposes of stabilization of the embankment as well as prevention of encroachment. Riverbank plantations will be managed according to principles of sustainable forest management; however, they do not constitute a forest or a commercial forestry operation as per OP 4.36. Therefore this policy is not triggered
Pest Management OP 4.09	Yes	The project is expected to result in changes in land use, including potential intensification of agricultural production in the newly flood-protected areas, as well as a net increase in cropped area. Given that the majority of current agricultural practices in the area use chemical pesticides, agricultural intensification and increase in cropped area following the reconstruction of the embankment may also lead to intensified use of chemical pesticides or fertilizers over the medium to long term. To address pest management issues and promote Integrated Pest Management (IPM) practices in the embankment protected area, the project's Environmental Management Plan includes development and implementation of a Pest Management Plan as part of project implementation.
Physical Cultural Resources OP/BP 4.11	Yes	The Project will need to relocate 20 mosques, four temples, one church, six Eid-gahs (place for offering Eid prayers) and two graveyards. Based on baseline assessments and extensive consultations with local communities and other stakeholders, none of these resources require any special protections warranting a PCR management plan as per the policy. The mosques, temples and Eid-gahs will be reconstructed and graves relocated as an integral element of the resettlement action plan (RAP) and in full consultation with project-affected persons. In addition, the 'chance find' procedures for contractors, in the event of discovery of an unknown resource during the course of construction, are included in the EMP.
Indigenous Peoples OP/ BP 4.10	No	No indigenous peoples, as defined by this policy, are living with, or have collective attachment to, the project area. This policy is therefore not triggered.
Involuntary Resettlement OP/BP 4.12	Yes	The Project requires about 370 ha of land acquisition and relocation of a large number of households residing on and along the existing embankment. Total affected households including those on the embankment, are 5,751

		(23,584 persons). BWDB has conducted social assessment and developed a Social Action Plan, which includes, among other elements, a development-oriented Resettlement Action Plan covering households affected by activities within the priority reach, as well as a Resettlement Policy Framework for the entire riverbank improvement program.
Safety of Dams OP/BP 4.37	No	This policy is not triggered, as the project is not constructing any new dams, nor does it rely on an existing dam.
Projects on International Waterways OP/BP 7.50	Yes	This Policy is applicable for the proposed project since the proposed flood and erosion control scheme is located along the Brahmaputra River, which is an international waterway. Nonetheless, given that (i) the project is a rehabilitation of existing flood control infrastructure rather than new construction, and (ii) Bangladesh is the most downstream country of the Brahmaputra/Jamuna River and the proposed project is therefore not expected to adversely change the quality or quantity of water flow to the other riparians, the project has been exempted from carrying out riparian notification, in accordance with paragraph 7(a) of the policy.
Projects in Disputed Areas OP/BP 7.60	No	The project is not located in any disputed area.

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

#### 1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The project will require 370 ha of land for construction of the new embankment and relocation of a large number of household residing along and on the existing embankments.. Total affected households/units, including those on the embankment, are 5,751 (23,584 persons), of which only 1,437 (8,026 persons) households are affected through land acquisition itself (that is, mainly loss of agricultural lands). There are nearly 3,628 households/units (that is, nearly 15,558 persons) that will be physically displaced requiring relocation (these include affected residential structures only - 2,256; affected shops/business structures - 148; affected residential-cum-business structures - 84; affected residential-cum-agricultural land only - 19; and affected residential structure and land other than agricultural - 1,121). In addition, 686 structures/units of different types (for example, Community Property Resources -78; fish ponds - 11; shallow tube-wells - 06; and households affected only by loss of trees - 591) are affected

A large percentage of these people are considered vulnerable, including many who have been displaced by river erosion in the past. The embankment will also act as a physical barrier to the movement of people and livestock between the river and countryside. Riverbank revetment may also potentially block access of the people to the river since slope of the concrete blocks can potentially be difficult to cross. Other impacts associated with construction include solid waste

generation, air emissions and noise generation (particularly relevant to sensitive receptors such as schools), potential for contamination of land and water from leaks and spills, loss of about 170,000 trees, risk of accidents, water logging due to blockage of local routes, and health and safety risks to local communities associated with influx of laborers and use of heavy machinery. The project will also affect the Jamuna River. Riverbank protection works as well as sand mining for source material for embankment construction could cause localized and temporary, but significant, impacts on the river's aquatic and riparian habitats. These impacts can all be effectively minimized, mitigated and managed through measures and programs specified in the project's Environmental Management Plan and Social Action Plan.

The project will furthermore result in both positive and negative impacts to the inland area that is benefiting from enhanced flood protection. The increased security against the threat of floods will likely induce changes to land use and settlement patterns behind the embankment. The positive effects of these changes include potential improved cropping patterns with increasing trend of high value crops, resulting in an increase in the agricultural incomes of local farmers. Among the negative related effects is a potential for increased use of agro-chemicals. In the absence of mitigation measures (e.g., the fish passes and regulators to be built into the embankment at key locations identified through the environmental baseline), the reconstruction of the embankment would meanwhile solidify the permanent loss of hydrological and ecological connectivity between the river and inland floodplains that was created with the original construction of the BRE. Cutting off such connectivity has a significant negative effect on river and floodplain ecology including fish migration. Lastly, although the project aims to reduce -- flooding risks, there will still be a small risk of future embankment breaches. Although the probability of this risk will be greatly reduced over baseline conditions, the consequences of such a breach include potentially much higher losses than currently being incurred because of the intensified cultivation and increased area development that is likely to take place in connection with the project

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

According to GoB development plans, rehabilitation and construction of embankments and river training works along both banks of the Jamuna, development of a road network along the right bank, and creation of an integrated river management program including capital dredging to expand inland water transport are considered as future major planned developments in the program area in the next 20 years.

The cumulative effect of the proposed project together with these other planned activities has the potential to significantly alter land uses in the project area along and behind the embankment. This is particularly the case in light of significantly improved regional connectivity and market access to be enabled by the future embankment road that is planned for phase III of the RMIP program. These effects will be studied in greater depth during project implementation, and also taken up in the context of the project's support to strategic-level regional integrated water resource planning as well as local catchment area land use planning.

Riverbank protection investments on a cumulative scale could furthermore alter river morphology and aquatic habitat in the long term. These changes are difficult to model in a complex braided river system like the Jamuna. Effects to aquatic biodiversity may be compounded by proposed dredging activities to improve and maintain navigation channels, potential spills, as well as collisions with dolphins from barges and ships using the waterways. Expected future climate change, as well as development activities of upstream riparians including hydropower and water

<p>diversion projects, may also alter flow patterns and sediment movement in the river. The project will include further studies and monitoring, to enable the impacts of river training on the Jamuna river's morphology and aquatic habitat to be more fully understood, including cumulative effects, and establishment of fish and dolphin sanctuaries to help ensure that negative impacts are mitigated or offset as feasible through the RMIP program.</p>
<p><b>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</b></p>
<p>As part of the preparation stage of project development, significant environmental issues were mainstreamed into project planning and design, including notably by incorporating fish passes and regulators into the embankment design for facilitation of fish migration and supplementary irrigation to areas behind the embankment. The locations as well as designs of the fish passes were selected and developed based on inputs from the EIA team.</p> <p>The selection of riverbank protection technologies to be used (long guiding revetments) was made due to their reduced impacts on the river and char ecology as well as high protection from the bank erosion. The other three options considered (groynes, spurs, and revetments built into the river) are less preferable because of technical difficulties, high environmental impacts and also higher initial as well as recurring costs.</p> <p>Selection of source material for embankment construction also aimed to avoid or minimize adverse impacts. Construction of the embankment requires huge amounts of earth fill. Two possible sources of embankment material are: (i) soil excavated from the floodplains and agriculture land, or (ii) sand extraction from the river bank with a cladding outer layer. The option of borrowing from floodplain agricultural land for soil was rejected due to its significant negative socioeconomic impacts on local communities. Negative impacts associated with the alternative option of sand extraction from the river will be minimized by limiting the size of each sand extraction location, locating the extraction points away from known sensitive aquatic habitats, and ensuring stretches of undisturbed riverbank between extraction locations. Cladding material will meanwhile be taken from the existing embankment.</p>
<p><b>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.</b></p>
<p>The Environmental and Social Assessment studies carried out for the 50 km priority reach (RMIP-I) include detailed Environmental and Social Management Plans. Key mitigation measures outlined in the plans include the following. Additional details are available in the detailed documents, which are publicly available.</p> <ul style="list-style-type: none"> <li>• Fish passes and regulators will be installed in the embankment and maintained to provide for ecological and hydrological connectivity between the Jamuna and inland beels and khals on the floodplain, and to alleviate drainage congestion and waterlogging of low lying areas behind the embankment. A comprehensive fishery development program will also be implemented for restoration of floodplain habitat through re-excavation of khals and beels, artificial stocking of fingerlings and capacity building of fishermen for sustainable harvesting and developing marketing facilities.</li> <li>• Infrastructure designs have been adapted to minimize barrier effects to local communities. Twelve local crossings (ramp cum stairs) will be incorporated in the embankment to facilitate the movement of people, livestock and non-motorized vehicles, and vehicular crossings are also included in designs. Stairs and ramps will be built on the bank protection works to enable local people to access the river.</li> <li>• Contractors will be required to manage all construction related environmental and social</li> </ul>



impacts, such as control of air and noise emissions, restricting working hours near sensitive receptors such as schools, effective management of hazardous substances, occupational health and safety measures for workers, camp management measures, installation of safety fencing and signage around construction sites, traffic safety measures, appropriate management and disposal of solid and liquid wastes, supply sourcing restrictions for sand and cladding to protect and minimize effects on areas of sensitive habitat, among other measures. Many of the specific requirements in these areas are outlined in detail in a series of Environmental Codes of Practice (ECoPs) which will be legally referenced in the contract documents. For other measures, the contractors will be required to propose detailed plans, to be approved by the project prior to construction.

- A comprehensive Social Action Plan has also been developed to address impacts to local communities. This Plan contains: (1) A development-oriented resettlement program with the aim not only to mitigate the adverse impacts, but also improve livelihoods and living conditions of the directly affected population; (2) A resettlement policy framework for the entire riverbank improvement program; (3) A gender action plan; (4) A public health action plan; (5) A local area development assistance program; and (6) A communication strategy.
- A grievance mechanism will be put in place to enable efficient resolution of any complaints or issues arising from local communities.
- A compensatory tree plantation will be carried out along the slopes of embankment to offset the loss of trees, stabilize the embankment and prevent re-encroachment. The plantations will be managed through a social forestry program to provide livelihood benefits to local communities.
- Linkages with existing integrated pest management programs will be facilitated, and an integrated pest management plan prepared, to address any increase usage of agro-chemicals in the area.
- BWDB will carry out a comprehensive monitoring program to improve understanding of changes to the river and river ecology over time in response to riverbank protection infrastructure. Monitoring initiate during the construction phase and will include bathymetry along the embankments, as well as habitat monitoring focusing on aquatic and charland biodiversity.
- To address the cumulative impacts to aquatic habitats and biodiversity in the Jamuna associated with riverbank protection as well as future dredging activities, the project will support detailed ecological studies to identify suitable areas for fish and dolphin sanctuaries, as well as support to establish these sanctuaries.
- BWDB's O&M procedures will also include regular and robust monitoring of the embankment and its structural integrity, to ensure that breaches are prevented.

Bangladesh Water Development Board (BWDB), the implementing agency, has a long experience in implementing World Bank financed projects, starting back in the 1970s. Although BWDB is well-versed in World Bank safeguard policies and procedures, it does not have a permanent unit on environmental and social management with qualified staff. The Project Management Unit (PMU) will therefore include a Social, Environmental and Communication Development Unit (SECO), which will be headed by a superintending engineer and supported by a Senior Environmental Specialist, Senior Social Specialist, and additional environmental and social specialists and consultants located both in Dhaka and in field offices of BWDB. The SECO will supervise, facilitate and coordinate implementation of environmental and social plans, as well as carry out regular reporting and follow-up on any issues of non-compliance, and engage regularly with stakeholders to ensure any concerns about the construction activities are appropriately addressed. Contractors will be required to appoint environmental specialists, occupational health and safety specialists, environmental technicians, and community liaison officers for the implementation of ESMP obligations in the field. An independent Construction Supervision

Consultant (CSC) with appropriate environmental, occupational health and safety, and social expertise will also be retained by the PMU to supervise the contractors, including on implementation of the ESMP, on a day to day basis. The PMU will also hire consultants and nongovernmental organizations to carry out additional studies and implementation of environmental and social plans that go beyond the scope of the contractors' construction activities. For an added layer of oversight and accountability, an External Monitor will be recruited by PMU to carry out independent monitoring of implementation of ESMP. Furthermore, the project's Independent Panel of Experts will be retained by the PMU to provide guidance to BWDB on complex environmental and social issues as required during project implementation.

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.**

Key project stakeholders include: (i) affected communities and population around the project area, (ii) farmers and fishing communities, (iii) national and local government authorities responsible for district administration, rural development, agriculture, fisheries, wildlife and environmental protection in the project area, and (iv) non-governmental organizations.

Preparation of the project and its environmental and social assessments included extensive consultations with stakeholders through several focus group discussions, informal consultation meetings. Initial consultations were held during August and September 2014 to share the project objectives and terms of reference of the proposed EA work. The second round of consultations was carried out between January and April 2015 to disclose and get feedback on the preliminary results of the EA studies. Methods for receiving stakeholder feedback included key informant interviews, village meetings, focus group discussions and workshops. In addition, a national stakeholder consultation workshop was held in Dhaka on 25th January 2015 to present key design features of the project and findings of the ESA reports, and similar formal consultation and disclosure events were held in the project area at four sub-district headquarters during April 2015 (at Dhunat on 6th April, at Kazipur on 8th April, at Sirajganj Sadar on 13th April, and at Sariakandi on 16th April). Overall, approximately 11,500 people have been consulted to date in relation to the project. Details of participants consulted, issues raised, and responses by the project are provided in the EIA and SIA reports. All environmental and social documents, including ESA executive summary translated to Bengali, were disclosed on the website of BWDB on 5 February 2015, as well as in hard copy at BWDB offices. English language documents were also disclosed at the World Bank InfoShop website on 16 February 2015. Updated versions of the studies have been re-disclosed following feedback from recent stakeholder consultations and from the World Bank

**B. Disclosure Requirements**

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	17-Jan-2015
Date of submission to InfoShop	16-Feb-2015
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	02-Jun-2015
<b>"In country" Disclosure</b>	
Bangladesh	05-Feb-2015
<i>Comments:</i>	
<b>Resettlement Action Plan/Framework/Policy Process</b>	

Date of receipt by the Bank	05-Feb-2015
Date of submission to InfoShop	16-Feb-2015
"In country" Disclosure	
Bangladesh	05-Feb-2015
<i>Comments:</i>	
<b>Pest Management Plan</b>	
Was the document disclosed prior to appraisal?	NA
Date of receipt by the Bank	////
Date of submission to InfoShop	////
"In country" Disclosure	
<i>Comments:</i>	
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>	
<b>If in-country disclosure of any of the above documents is not expected, please explain why:</b>	

### C. Compliance Monitoring Indicators at the Corporate Level

<b>OP/BP/GP 4.01 - Environment Assessment</b>			
Does the project require a stand-alone EA (including EMP) report?	Yes [ <input type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
<b>OP/BP 4.04 - Natural Habitats</b>			
Would the project result in any significant conversion or degradation of critical natural habitats?	Yes [ <input type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?	Yes [ <input type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
<b>OP 4.09 - Pest Management</b>			
Does the EA adequately address the pest management issues?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
Is a separate PMP required?	Yes [ <input type="checkbox"/> ]	No [ <input checked="" type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?	Yes [ <input type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input checked="" type="checkbox"/> ]
<b>OP/BP 4.11 - Physical Cultural Resources</b>			
Does the EA include adequate measures related to cultural property?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?	Yes [ <input checked="" type="checkbox"/> ]	No [ <input type="checkbox"/> ]	NA [ <input type="checkbox"/> ]
<b>OP/BP 4.12 - Involuntary Resettlement</b>			

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>OP 7.50 - Projects on International Waterways</b>	
Have the other riparians been notified of the project?	Yes [ <input type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input checked="" type="checkbox"/> ]
If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Has the RVP approved such an exception?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>The World Bank Policy on Disclosure of Information</b>	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>All Safeguard Policies</b>	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

### III. APPROVALS

Task Team Leader(s):	Name: Abedalrazq F. Khalil	
<b><i>Approved By</i></b>		
Safeguards Advisor:	Name: Maged Mahmoud Hamed (SA)	Date: 12-Jun-2015
Practice Manager/Manager:	Name: Parameswaran Iyer (PMGR)	Date: 14-Jun-2015