

ENVIRONMENTAL MANAGEMENT FRAMEWORK  
**EXECUTIVE SUMMARY**

### **1. Background:**

The Private Sector Development Support Project (PSDSP) was developed to support the development of a few pilot projects incorporating the new EZ model. The PSDSP was aimed at creating the infrastructure platform required to further enhance a manufacturing and services led transformation of Bangladesh's economy. The project is expected to generate firm level investment in manufacturing and services beyond the already established RMG sector and contribute to a sustainable increase in jobs and household income for an increasingly densely populated Bangladesh.

PSDSP-1 became effective in August 2011 and it is scheduled to close in June 2016. It is financed by an IDA Credit of US\$42.8 million and a grant of US\$17.4 million from the UK Department for International Development (DfID).

The new, AF of PSDSP in FY17-21 (PSDSP-2) will build upon the achievements and lessons learned from the original PSDSP in FY12-16 (PSDSP-1) and support the GoB in scaling up support to recently licensed and new zones. The project will address constraints to private investment and job creation by turning secure, government owned and controlled land into serviced industrial land for green-field and expansion projects. The SEZs will be financed and developed largely by private investors that obtain licenses from the Bangladesh Economic Zones Authority (BEZA) and the Bangladesh Hi-Tech Park Authority (BHTPA). The licenses are issued to both private developers and public private partnerships (PPP). The project will finance the preparation of pre-feasibility studies and master plans and transaction advisors who will engage and concession land to private EZ developers. The zones will be developed in accordance with international practices of building safety, environmental and social safeguards.

### **2. Project Objective:**

Facilitate private investment and job creation and promote compliance with international quality standards, building codes, and good social and environmental practices in economic zones supported by PSDSP.

### **3. Project Components:**

**Component 1: Strengthening the Enabling Environment for EZ Development-**The component will finance TA, capacity building, training, small equipment and operational expenditures. The financing will cover the hiring of third party transaction advisors to facilitate and accelerate the development process, including the development of detailed offsite infrastructure design, supervise construction, design of an online portal for one-stop services, conduct site assessments and pre-feasibility studies, and target zone developers/operators and anchor investors. This component includes project management capacity building within the IAs, which was previously a stand-alone component in the Financing Agreement for PSDSP.

**Component 2: Public Investment Facility for EZ Development-**The component remains unchanged and will finance mostly works and equipment to scale up and accelerate development of licensed EZs by putting in place last-mile infrastructure and equipment critical within EZs to uphold security, adhere to high social and environmental standards, and crowd in innovative solutions to basic services within the zones.

**Component 3: Strengthening Skills Formation, Building Safety, and Sustainable Social and Environmental Standards**-The component will continue to finance TA, capacity building and training for the private sector and workforce. This will focus on training and the promotion of compliance with standards and codes and of good environmental and social practices with the addition of two focal areas; gender and building safety in zones. It will also continue to support and promote business linkages between zone companies and the local private sector.

#### **4. Environment Management:**

Depending on the nature and type of zone, the sub-projects can lead to environmental impacts during project development and operation phases by way of use of construction materials for building infrastructure and related earth moving activities; generation of industrial and domestic wastewater, and solid waste from operations and other industrial emissions. PSDSP adopted the Environmental Management Framework (EMF) that ensure compliance to the environmental regulations of GoB and the safeguard policies of The World Bank. In light of the proposed additional financing for PSDSP, the EMF has been updated based on the experience gained during the implementation of PSDSP project, to help better implementation of environment management measures for the activities being supported through the additional financing of the project (PSDSP II).

The EMF is designed to,

- Understand the process of addressing environmental concerns in PSDSP projects, which are a combination of Public and Private financed projects;
- establish clear procedures and methodologies for the environmental assessment, review, approval and implementation of investments to be financed under the project;
- specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental concerns related to project investments;
- determine the training, capacity building and technical assistance needed to successfully implement the provisions of the EMF;
- provide practical information, and resources for implementing the EMF.

The users of EMF are,

- PSDSP Project Staff at the Central Coordinating Unit (CCU at ERD );
- Project Implementing Agencies (BEZA/BEPZA/ HTPA );
- Potential Private Master Developers;
- Potential Industrial Units / entrepreneurs of the EZs;
- Other relevant government agencies, including DOE

#### **5. Relevant Laws and Regulations in Bangladesh**

A large number of laws related to environmental issues, some dating back to the 19th century, exist in Bangladesh. The most important of these are the Environmental Conservation Act, 1995 (ECA 1995) and the Environmental Conservation Rules (under the ECA, 1995, ECR 1997). Many of the other laws are cross sectoral and are only partially related to environmental issues. Depending on the extent of impact on the environment, the Department of Environment (DoE) classifies all the projects in four categories. These are:

- Green;
- Orange- A;

- Orange- B; and
- Red

The Environment Conservation Act, 1995 and the Environment Conservation Rules, 1997, refer to Ecologically Critical Areas Bangladesh. According to this legislation, environmental protection is deemed particularly relevant in Ecologically Critical Areas, which are defined by the Government as areas where degradation of the environment has reached or threatens to reach a ‘critical’ state. Specifically, under the Environment Conservation Act and Rules, the Government will take into special consideration areas such as human settlements, ancient monuments, archeological sites, forest sanctuaries, national parks, game reserves, wildlife habitats, wetlands, mangroves, forested areas, biodiversity areas, and other similar areas. Department of Environment of Bangladesh has declared 12 areas, mostly wetlands, as ECA (presented in Annex 1), which include Hakaluki Haor, Sonadia Island, [St Martin's Island](#), Teknaf Peninsula (including Cox’s Bazar Sea Beach, but not their buffer zones), [Tanguar Haor](#), Marjat baor (oxbow lake) and 10 km peripheral distance from the identified Sundarbans Reserved Forest, and entire four rivers (Buriganga River, Shitalakshya Rover, Turag River and Balu River) flowing within and surrounding Dhaka city.

The others policies those regulate environmental management in Bangladesh and relevant to the sub-projects of PSDSP.

- National Environmental Policy, 1992
- National Environmental Management Action Plan, 1995
- National Conservation Strategy, 1992
- National Water Policy, 2000
- National Water Management Plan, 2001

**DOE Clearance Procedures-**The DoE, clearance procedure for various projects identified under ECR would need to go through the following two stage process.

- Initial Stage: Site Clearance Certificate (SCC)
- Advanced Stage: Environmental Clearance Certificate (ECC)

The EZ/EPZs proposed to be developed under PSDSP as per ECR will be considered a red category project/facility, and will have to secure ECC. The enterprises operating within the zone will be classified according to the nature of its operations/industry and shall comply with appropriate DOE regulations.

## 6. Applicable Safeguard Policies of the World Bank

Safeguard policies of The World Bank are aimed at avoiding and / mitigating environmental impacts associated with projects supported by the Bank. Safeguard policies of the Bank that could be triggered for PSDSP are summarized below.

The Safeguard Policies of World Bank on Environmental Issues

S.No	World Bank Policy	Reasons of Applicability	Addressed by
------	-------------------	--------------------------	--------------

	Environmental Assessment OP 4.01	Project is likely to have impact on natural environment. Particularly, air, water land, human safety, natural habitats, forestry.	Carrying out an Environmental Assessment and preparing an environmental management plan to avoid/mitigate environmental impacts
--	----------------------------------	---	---

## 7. Original Project Assessment:

The project is rated as Category A. The Environmental Management Framework (EMF) was developed in accordance with OP 4.01 considering the nature and scale of the project activities as well as the complexity of environmental issues associated with the activities (mainly in EZs and high-tech parks). The environmental management procedures outlined in the EMF are followed in the implementation of the subprojects under the original credit. Three Individual Environment Specialists are working in the three implementing agencies. The required site specific environmental assessments for construction activities (mainly for EZs and high tech parks) are prepared and approved by the Department of Environment. The management plan with budget are incorporated in the respective bid documents of contractors. The construction sites are monitored in regular interval to ensure the implementation of EMPs. BEPZA has recruited thirty 30 Environmental Counsellors and set-up an environment laboratory to protect the environment of the enterprises in the EPZs. 21 firms located in zones now comply with relevant environmental standards (ISO 14000 or equivalent).

The main environmental impacts of the project are water and air pollution due to disposal of untreated domestic wastewater, industrial effluents; air emissions from stack and other industrial operations, handling and disposal of solid and hazardous wastes, e-waste generation, etc. as well as the impact on the environment during construction. Most of the impact are minimized, avoided or compensated with a careful design and implementation of the environmental management plan. "Green-zone" techniques and procedures will be included in the plan for proposed EZs. These techniques can include energy efficiency, co-generation, renewable energy use, water treatment plant (WTP) and effluent treatment plant (ETP), efficient water management, and alternative transportation options, etc. In addition, the proposed enterprises will comply with national or international environmental standards (ISO 14001:2004, Environmental Management Standard) and OHSAS 18001:2007, Occupational Health Safety Standard certification).

## 8. Environmental Management Procedures in PSDSP and PSDP AF:

The Environmental Management Procedures developed for PSDSP are aimed at minimizing the environmental impacts of the project and ensures adequate integration of environmental aspects in the project planning, design, construction and operation phases. In addition to complying with the regulatory requirements of GoB and the safeguard policies of The World Bank, the procedures provide a framework to (i) identify, predict, and evaluate beneficial and adverse environmental impacts of project activities, (ii) designing enhancement measures for beneficial impacts, and (iii) suitable institutional arrangements to implement the environment management measures.

**Environmental Issues in Export Processing Zones-**The environmental impacts of EZ / EPZs proposed to be set up in PSDSP broadly depend on the nature and type of zone and local environmental conditions of the area they are located. These impacts may be categorized as below.

- Impacts on water resources due to disposal of untreated industrial effluents;
- Health impacts due to air emissions from stack & other industrial operations;
- Impacts due to disposal of solid & hazardous wastes, including waste sludge;
- Hazards due to storage, handling and use of chemicals/hazardous materials;
- Impacts due to ground / surface water extraction;
- Impacts due to disposal of untreated domestic wastewater;
- Indirect impacts due to land use change, increased traffic & other developments

The initial assessment of potential sub-projects of PSDSP (Kaliakoir Hi-Tech Park) in the preparation of PSDSP and Environmental Assessment studies carried out during the implementation of PSDSP for Jessore MTB, Sylhet HTP, Mongla EZ, and Miroshorai EZ indicate that the EZ / EPZs could also have the following site specific impacts.

- Interference to natural drainage paths due to the siting of EZ / EPZs;
- Pollution of surface and ground water sources;
- Impacts on environment during construction
- Potential environmental liabilities of non-compliant industries;

#### **Project Categorization-Environmental Categorization of PSDSP Sub-Projects**

S.No	Sub-Project	Environmental Category
1	Complete EZ (RMG, IT or others) development by the project implementing agencies	A
2	Site development and other EZ development activities	A
3	Public financed components of EZ such as rail/road link, etc.	A
4	Public financed common infrastructure in EZ offices, training centers, research centers and other facilities	B
5	Public financed environmental infrastructure such as power distribution, water supply & distribution, sewerage & drainage, industrial effluent treatment, common effluent treatment, domestic/industrial/hazardous waste disposal facilities	A
6	Other facilities to be developed publicly/privately for EZs	B

In addition to the above, should there be any new sub-projects identified in PSDSP, these new projects will be categorized based on the criteria defined above will be subjected to the environmental analysis set out in this EMF.

**Environmental Assessment of Sub-Projects-** Any new zone development would be required to perform an EIA and obtain an ECC from the GoB. Similarly, all 'Category A and B' projects would need to perform an EA to comply with the safeguard policies of The World Bank.

In line with both these requirements, all 'Category A' and 'B' sub-projects will be subjected to an environmental assessment process, and will ensure that all key environmental issues are addressed in the project. This shall comprise the following steps.

- A screening exercise that identifies the project category and establishes the need for conducting an EA; an IEE that defines the scope of EA (for category A and B Projects) and generic EMP for Category C projects;
- Securing site clearance certificate and commencement of EA;
- Prepare EA and EMP and secure clearances (DoE and Bank);
- Implement EMP and monitor its effectiveness.

**Environment Management Requirements for Individual Enterprises in EZ / EPZs**-Good environmental management practices by the individual EZ/EPZ enterprises/tenants are very important to avoid impacts during operational phase of project. To ensure this, PSDSP mandates all tenants to connect to the following common facilities and comply with maintenance requirements (pre-treatment, maintenance charges, etc.).

- Common Effluent Treatment Plants, with tertiary treatment for reuse/recycling
- Common Hazardous Waste Disposal Facilities
- Common Solid Waste Disposal Facilities
- Common Wastewater Treatment Plant with reuse /recycling facilities
- Integrated rainwater harvesting and water supply facilities
- Adequate plantation (both in the EZ / EPZ and individual plot) to minimize air and noise impacts

In addition to the above, all the tenants shall fully comply with the GoB regulatory requirements such as the following.

- Conducting IEE and securing SCC prior to allotment of the plot in the EZ / EPZ
- Conducting EIA and securing ECC (as applicable) prior to the commencement of construction
- Implementation of EMP and ECC conditions during and operation phase
- Ensuring compliance to environmental regulation of GoB during operation

Also, the environmental management and monitoring tools developed by BEPZA, through the Bangladesh Investment Climate Fund (BICF) project, shall be adopted (as applicable) to improve environmental performance of the enterprises. These tools include Environmental Monitoring & Enforcement Plan Guidelines, Environmental Best Management Practice Manual, Environmental Audit of Enterprises, Environmental Enforcement Strategy, Environmental Inspection Forms & Modules, Evaluation & Rating Criteria for Enterprises

All these aspects will be incorporated in the tenant lease agreement of the EZ / EPZ and shall be monitored for its implementation by Environmental Cell of EZ / EPZ operator. A sample set of environmental specifications for Bid documents and tenant lease conditions of BEPZA on environmental requirements are provided in Annex 16 and 17 respectively. The same shall be appropriately modified and incorporated in the respective sub-projects documents.

## **9. Institutional Framework:**

**Overall Project Implementation Arrangements** -The overall management of PSDSP project will be carried out by the Central Co-ordination Unit (CCU) set up for the purpose and the sub-projects will be managed and implemented by the respective implementing agencies. Depending

on the type of the sub-project, these agencies will be BEZA, HTPA, and BEPZA. Both the CCU and the PIUs will be adequately staffed to implement the projects.

**Institutional SET up for Environment Management-** The institutional arrangements for the implementation of various aspects of EMF and environment management of PSDSP comprise the following.

- Environment Management Cell (EMC) at CCU to monitor all the aspects of environmental management of the project
- Project Environment Cell (PEC) at PIU to ensure adequate integration of environment management measures in the design phase and supervise implementation of EMF and specific requirements of EMP
- Environment Management Unit (EMU) at EZ / EPZ to implement EMP and other regulatory requirements during construction & operation phase of EZ / EPZ.

**Monitoring and Reporting** - The implementation of EMF and other agreed actions of environmental management during construction and operation phase of the sub-projects, will be monitored by EMC, a combination of regular visits to the sub-project locations and periodic reports from the PEC. While the EMC will carry out monthly visit to the site and submit quarterly progress reports to the Bank, the PEC will conduct fortnightly visits and submit monthly reports to PEC.

**Annual Audit / Review of EMF Implementation-** An annual review/audit of EMF implementation will be carried out by an independent agency or professional. The objectives of the audit will be to;

- Review the project's compliance with all regulatory and environmental management requirements of GoB and the Bank;
- Assess compliance with EMF procedures, lessons learned and requirements for improving the EMF
- Review the implementation of sub-project specific EMP and its effectiveness
- Based on the outcomes of annual audit, the EMF will be revised / updated appropriately.

## **10.Capacity Building & Training**

**Capacity Building-** The implementation of EMF and number of environmental management measures of PSDSP are dependent on the capacity of the implementing agencies in environmental management. In order to ensure this, a program of capacity building for HTPA, BEZA, BEPZA, , Master Developers, contractors and the other stakeholders will be put in place to ensure that, the capacity to carry out environment management activities for industrial and EZ / EPZ projects is developed.

The capacity building program will enhance the subproject's EMF management by allowing real application of the critical practices such as the following:

*Basic practices:* screening impacts, scoping assessments, planning mitigation options, public consultation to assess feasibility and acceptability options;

*Environment:* site selection and project design to minimize environmental impacts and social disruption; restoration of drainage patterns, land use etc; including mitigation measures in contracts; management of impacts during construction; monitoring of effectiveness of measures;

*Monitoring:* Monitoring environmental performance, reporting, supervision use of various formats during implementation and operation phase, documentation, complaint response, record keeping and other procedures;

**Training Programs-** A comprehensive training plan will be designed, which aims at enhancing capacity of relevant stakeholder agencies and with the following objectives.

- identify, prepare, implement & manage environmental aspects of sub-projects;
- ensure that the agencies have the capacity to assist in preparing sub-project proposals, mitigation plans; and Rules and regulations concerning the procedures and methodology in EIA for PSDSP;
- preparation of environmental assessment reports;
- methodologies of EIA implementation;
- formulation of environmental remedial measures;
- ensure that the implementing agencies have the capacity to appraise, approve and supervise the implementation of subprojects; and training plans will be prepared accordingly.

These training activities and capacity building program will be developed and implemented by professional agencies with adequate experience in imparting such training programs. The resources for implementing the program will be allocated from the respective component of PSDSP and will be coordinated by the Environment Management Cell (EMC) of the Central Co-ordination Unit.