

GPOBA for OBA Sanitation Microfinance Program in Bangladesh

Environment and Social Management Framework

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1. Introduction

1.1 Background and context

With GoB driving its National Sanitation Campaign from 2003 to 2012, Bangladesh has made tremendous progress in increasing access to basic sanitation. According to the WHO and UNICEF Joint Monitoring Program (JMP) 2014, only one percent of Bangladesh’s rural population was still practicing open defecation and 61 percent people have access to improved sanitation;¹ however, only 37 percent people have access to hygienic sanitation.² Despite these achievements, Bangladesh remains off-track in terms of achieving the Millennium Development Goal (MDG) for sanitation, which requires improved sanitation coverage for at least 69.5 percent of the population.

In terms of sanitation service levels, rural households in Bangladesh mainly use basic/improved sanitation (basic) which is characterized by direct pit latrines, constructed using 3-5 rings for pit lining, and a concrete slab with a plastic pan to channel the waste to the pit (most of them without a water seal). Some of these latrines are initially connected to a water trap between the toilet and pit, which typically breaks shortly after installation, making the latrine unhygienic as the contents of the pit are exposed. Slabs, which generally rest on top of the pit, are generally of poor quality and can break after a few years of use (it is not completely uncommon for people to fall into their latrine pits because of broken or dislodged slabs). Most of the plastic pans currently available in the market do not have design elements that allow ‘gripping’ to the cement, resulting in pans that sometimes separate from the slabs. This results in environment pollution. Contamination can also occur during the pit emptying process.

Considering the above, the government has taken a strategy to transition poor people from basic to hygienic quality sanitation, moving them up the “sanitation ladder,” as depicted in Box 1. Hygienic latrines must be structurally sound and, most importantly, fully confine waste from the user and the surrounding environment. Using a twin pit allows for a longer period of time for waste to stabilize; nevertheless, it will still need care in emptying, treatment, and disposal or reuse.

Box 1: The Sanitation Quality Ladder

- A. Open defecation** – characterized by the lack of fixed point sanitary facilities.
- B. Basic sanitation** – characterized by low quality, basic infrastructure, which does not necessary isolate human excreta from contact.
- C. Improved sanitation** (Minimum standard: pit latrine with slab): can only physically separate human feces from the environment, but cannot block the transmission of germs.
- D. Hygienic sanitation** (Minimum standard: pit latrine with slab and water seal/lid or flap) - physically separates human feces from the environment and blocks the transmission of germs.
- E. Desirable enhancements** (Offset latrine) – separation of toilet and pit via extended pipe with quality construction, Washable cement floor and Toilet house superstructure

1.2 The OBA Sanitation Microfinance Program

The Global Partnership on Output-Based Aid (GPOBA) is providing a US\$ 3 million grant to support access to hygienic sanitation for low-income households in rural Bangladesh through the OBA Sanitation Microfinance Program. GPOBA is a multi-donor trust fund, established in 2003 and administered by the

¹According to WHO-UNICEF Joint Monitoring Program (JMP), improved latrines ensure hygienic separation of human excreta from human contact. The minimum standard of this type of latrine is a pit-latrine with slab (not only separating human feces from the environment but also blocking the transmission of germs).

²Long-Term Sustainability of Improved Sanitation in Rural Bangladesh; WSP; June 2011

World Bank Group, designed to test the use output-based aid (OBA) approaches to improve the delivery of basic services to the poor and marginalized. OBA is defined as a financial mechanism designed to increase access and affordability of basic services for the poor, by helping cover the gap between the cost of service and what poor households are able and willing to pay. OBA links the payment of aid to the delivery of specific services, or “outputs,” such as the construction of quality, hygienic latrines for poor households. The OBA approach is already being used in Bangladesh by IDCOL and local NGOs, to support access to solar home systems, biogas plants, and solar irrigation pumps for low-income households.

The OBA Sanitation Microfinance Program will be implemented by Palli Karma-Sahayak Foundation (PKSF). PKSF was established by the Government of Bangladesh in 1990 as the apex organization with the mandate to alleviate poverty through generating employment. PKSF disburses funds to MFIs, its Partner Organizations, to implement development programs designed for the poor of Bangladesh. PKSF comprises of two constitutional bodies as per Article of Association: the General Body, responsible for the overall policy directions to the management of PKSF to take care of its activities and the Governing Body, which holds the responsibility to pursue and carry out the programs as per the vision and mission of the Foundation. PKSF has also served as the project implementation agency for Sahos (Disaster Management Fund: DMF) and CCCP (Community Climate Change Project), in addition to their regular awareness raising program.

Under the program, PKSF will support local microfinance institutions (MFIs), also called Partner Organizations (POs) to provide sanitation loans to poor households through a nation-wide program in rural Bangladesh. PKSF has been focused on ensuring that strict procedures are followed for enrollment of new POs, carrying out due diligence and field level assessments, among other initiatives for each candidate PO. Pre-qualified local sanitation entrepreneurs will construct the hygienic latrines for targeted households according to the required standards. In many cases, existing latrine structures will be upgraded to meet hygienic sanitation standards, rather than new construction. In this way, the project will support these households to move up the sanitation ladder, from basic/improved latrines, which run the risk of environmental pollution, to hygienic latrines, which fully confine waste from the user and the surrounding environment.

The OBA Sanitation Microfinance Program supports only small scale infrastructure, which will improve the sanitation environment and can be implemented without any major technical complexity. The following physical activities will be supported by the project. The trained entrepreneurs, in consultation with the community and with support from PKSF, will implement these activities. With appropriate planning and skill, the above small-scale activities are not expected to create any long-term and significant environmental impacts.

- Site selection for the hygienic latrine at household level
- Pit construction for the latrine
- Platform construction
- Superstructure development

The project is expected to reach 170,000 poor households with affordable access to hygienic sanitation, through sanitation loans from participating microfinance institutions. This includes the Association for Social Advancement (ASA), and 20 large, medium, and small scale MFIs selected by PKSF, with experience in the water and sanitation sector.

Overall, the project is likely to have a positive impact, as the sanitation systems will contribute to a healthy living environment by ensuring the safe disposal of human waste (sanitation). However, there is still a risk of polluting drinking water, surface water, or groundwater due to poorly built toilets, inadequate maintenance, or discharge of untreated sewage and sludge into the land, rivers or canals. Proper

mitigation measures will be taken for collecting and decomposing solids to turns into fertilizer and allow to flows out the treated leach into the soil or surface water.

1.3 Purpose of Environment and Social Management Framework

The purpose of this Environment and Social Management Framework (ESMF) is to ensure that neither the project activities (both in terms of needs and quality) nor the environment is compromised through the program intervention as regards the beneficiary communities. The Action Plan will facilitate compliance with the World Bank’s environmental and social safeguard policies and with policies, acts and rules of the Government of Bangladesh.

The objectives of the ESMF will be to:

- enhance environmental and social outcomes of the activities implemented under the project;
- prevent and/or mitigate any negative environmental and/or social impact that may emerge;
- ensure the issues of environmental safeguards and improved management in the use of natural resources resulting in improvements in local environmental quality and human well-being;
- outline a framework for environmental and social screening procedures and methodologies under the program; and
- specify appropriate roles and responsibilities to carryout screening, management (mitigation, monitoring and compensation) and reporting related to the program.

As specific geographic locations of project activities are still to be determined, this ESMF provides a general framework applicable to all activities under the OBA Sanitation Microfinance Program.

2. Policy Legal and Administrative Framework

Bangladesh has an environmental legal framework that is conducive to both environmental protection and natural resources conservation. In addition, a wide range of laws and regulations related to environmental issues are in place in Bangladesh. Many of these are cross-sectoral and partially related to environmental issues. This Section presents an overview of the major national environmental laws and regulations as well as World Bank safeguard policies that are relevant to the project.

2.1 National Environmental Laws and Regulations

National Environmental Policy 1992

The concept of environmental protection through national efforts was first recognized and declared in Bangladesh with the adoption of the Environment Policy, 1992 and the Environment Action Plan, 1992. The major objectives of Environmental policy are to i) maintain ecological balance and overall development through protection and improvement of the environment; ii) protect country against natural disaster; iii) identify and regulate activities, which pollute and degrade the environment; iv) ensure environmentally sound development in all sectors; v) ensure sustainable, long term and environmentally sound base of natural resources; and vi) actively remain associate with all international environmental initiatives to the maximum possible extent.

Bangladesh Environmental Conservation Act (ECA), 1995 and subsequent amendment

This umbrella Act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. It is currently the main legislative framework document relating to environmental protection in Bangladesh, which repealed the earlier Environment Pollution Control ordinance of 1977.

The main provisions of the Act can be summarized as:

- Declaration of ecologically critical areas, and restrictions on the operations and processes, which can be carried or cannot be initiated in the ecologically critical area;
- Regulation in respect of vehicles emitting smoke harmful for the environment.
- Environmental Clearance;
- Regulation of industries and other development activities with regards to discharge permits;
- Promulgation of standards for quality of air, water, noises and soils for different areas for different purposes;
- Promulgation of standard limits for discharging and emitting waste; and
- Formulation and declaration of environmental guidelines;

The first sets of rules to implement the provisions of the Act were promulgated in 1997 (see below: “Environmental Conservation Rules 1997”). The Department of Environment (DoE) implements the Act. DoE is headed by a Director General (DG). The DG has complete control over the DoE and the main power of DG, as given in the Act, may be outlined as follows:

- Identification of different types and causes of environmental degradation and pollution;
- Instigating investigation and research regarding environmental conservation, development and pollution.
- Power to close down the activities considered harmful to human life or the environment.

- Power to declare an area affected by pollution as an Ecologically Critical Area. Under the Act, operators of industries/projects must inform the Director General of any pollution incident. In the event of an accidental pollution, the Director General may take control of an operation and the respective operator is bound to help. The operator is responsible for the costs incurred and possible payments for compensation.

The first step of obtaining *Environmental Clearance* for the project the proponent is to apply for it in prescribed form, together with a covering letter, to the Director/Deputy Director of respective DoE divisional offices. The application should include a project feasibility study report, the EIA report, *No Objection Certificate* (NOC) of the local authority; Mitigation Plan for minimizing potential environmental impacts; and appropriate amount of fees in 'treasury chalan' (in the present case the amount is BDT 50,000). The DOE authority reserves the right to request additional information, supporting documents, or other additional materials for the proposed project. Under the conditions specified in the Environment Conservation Rules-1997, the DoE divisional authority must issue environmental site clearance certificates within 60 working days from the date of submitting the application, or the refusal letter with appropriate reasons for such refusal.

Rule 7 of Environment Conservation Rules (ECR) has classified the projects into following four categories based on their site conditions and the impacts on the environment; (a) Green, (b) Orange A, (c) Orange B and (d) Red. Various industries and projects falling under each category have been listed in schedule 1 of ECR 1997. According to the Rules, Environmental Clearance Certificate is issued to all existing and proposed industrial units and projects, falling in the Green Category without undergoing EIA. However, for category Orange A and B and for Red projects, require location clearance certificate and followed by issuing of Environmental Clearance upon the satisfactory submission of the required documents. Green listed industries are considered relatively pollution-free, and therefore do not require *site clearance* from the DoE. On the other hand, Red listed industries are those that can cause 'significant adverse' environmental impacts and are, therefore, required to submit an EIA report. These industrial projects may obtain an initial *Site Clearance* on the basis of an IEE based on the DoE's prescribed format, and subsequently submit an EIA report for obtaining *Environmental Clearance*. Figure 1 shows the process of application leading to environmental clearance for all four categories of projects.

The ECA'95 and ECR '97 make no provision for the environmental clearance function of the DoE to be devolved to the municipalities, upazila or union authorities, even for small scale, low impact investments falling under the Green Category. As per ECA '95, the only potentially important environmental role given at this level is the issuance of the no objection certificate (NOC), which is a requirement while applying for environmental clearance from the DoE. In this case, the applicant is to obtain and submit a No Objection Certificate issued by the Municipal Chairman in Pourashavas, and the City Corporation Executive in metropolitan areas. With no systematic review or assessment process in place, however, these certificates are normally procured through private negotiation. Nevertheless, if greater public consultation could be introduced into this process, municipalities could perform a valuable role in environmental management, particularly considering their unique positions as locally-based elected representatives.

2.2. World Bank Safeguard Policies

The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. Safeguard policies provide a platform for the participation of stakeholders in

project design, and act as an important instrument for building ownership among local populations. The effectiveness and development impact of projects and programs supported by the Bank has substantially increased as a result of attention to these policies. The World Bank has ten environmental, social, and legal safeguard policies. The relevant policies for environmental safeguard are the following:

Environmental policies:

OP/BP 4.01 Environmental Assessment

OP/BP 4.04 Natural Habitats

OP/BP 4.09 Pest Management

OP/BP 4.11 Physical Cultural Resources

OP/BP 4.36 Forests

OP/BP 4.37 Safety of Dams

Social Policies

OP/BP 4.10 Indigenous Peoples

OP/BP 4.12 Involuntary Resettlement

Legal Policies

OP/BP 7.50 International Waterways

OP/BP 7.60 Disputed Areas

Operational Policies (OP) are the statement of policy objectives and operational principles including the roles and obligations of the Borrower and the Bank, whereas Bank Procedures (BP) is the mandatory procedures to be followed by the Borrower and the Bank. Apart from these, the IFC guidelines for Environmental Health and Safety have been adopted by the World Bank Group, which is also relevant for environmental protection and monitoring, as well as the Policy on Access to Information of the World Bank. Applicable safeguards policies, IFC guidelines and Access to Information policies are discussed below.

OP/BP 4.01 Environmental Assessment

This policy is considered to be the umbrella safeguard policy to identify, avoid, and mitigate the potential negative environmental and social impacts associated with Bank lending operations. In World Bank operations, the purpose of Environmental Assessment is to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been properly consulted. The borrower is responsible for carrying out the EA and the Bank advises the borrower on the Bank's EA requirements. The Bank classifies the proposed project into three major categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts:

Category A: The proposed project is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.

Category B: The proposed project's potential adverse environmental impacts on human population or environmentally important areas-including wetlands, forests, grasslands, or other natural habitats- are less adverse than those of Category A projects. These impacts are site specific; few if

any of them are irreversible; and in most cases mitigation measures can be designed more readily than Category A projects.

Category C: The proposed project is likely to have minimal or no adverse environmental impacts.

OP/BP 4.10 Indigenous Peoples

The term “Indigenous Peoples” (i.e., ethnic minorities) is used in a generic sense to refer to distinct, vulnerable, social and cultural groups possessing the following characteristics in varying degrees:

- self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- a distinct language, often different from official language of the country/ region.

A standalone Small Ethnic Communities and Vulnerable Peoples Development Framework (SECVPDF) has been prepared to address OP/BP 4.10.

IFC Environmental, Health and Safety Guidelines

The Environmental, Health and Safety (EHS) Guidelines of the World Bank Group (WBG)/International Finance Corporation (IFC), 2008 is the safeguard guidelines for environment, health and safety for the development of the industrial and other projects. They contain performance levels and measures that are considered to be achievable in new facilities at reasonable costs using existing technologies. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures than those provided in these EHS Guidelines are appropriate, in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment.

The section 4 of EHS Guidelines for “Construction and Decommissioning” provides additional, specific guidance on prevention and control of community health and safety impacts that may occur during new project development, at the end of the project life-cycle, or due to expansion or modification of existing project facilities.

World Bank Policy on Access to Information

In addition to the safeguard policies, the Access to Information Policy also relates to safeguards. To promote transparency and facilitate accountability, Bank Access to Information Policy supports decision making by the Borrower and Bank by allowing the public access to information on environmental and social aspects of projects in an accessible place and understandable form and language to key stakeholders. The Bank ensures that relevant project-related environmental and social safeguard documents, including the procedures prepared for projects involving subprojects, are disclosed in a timely manner before project appraisal formally begins. The policy requires disclosure in both English and Local language and must meet the World Bank standards.

2.3 Implications of National Policies and Regulations

The Environmental Conservation Rules (ECR) 1997 (DoE, 1997) classifies projects into four categories according to potential environmental impacts: (1) Green; (2) Orange A; (3) Orange B; and (4) Red. Green category projects are those with mostly positive environmental impacts or negligible negative impacts; Orange A category projects are those with minor and mostly temporary environmental impacts for which there are standard mitigation measures; Orange B category project are those with moderately significant environmental impacts; while Red category projects are those with significant adverse environmental impacts. As per Schedule-1 of ECR-1997, there is no categorization found for household latrines; however, public toilets fall in Orange B category.

2.4 Implications of World Bank Safeguard Policies

According to WB Operational Policy (OP 4.01), the nature of environmental assessment to be carried out for a particular sub-project would largely depend on the category of the sub-project. As mentioned earlier, The World Bank Operational Policy (OP) 4.01 classifies projects into three major categories (category A, B and C), depending on the type, location, sensitivity and scale of the project, and nature and magnitude of potential impacts. This OBA Sanitation Microfinance Program does not appear to pose risk of significant adverse environmental impacts. The overall project is classified as a Category 'B', and the safeguard policy OP/BP 4.01 has been triggered for the proposed operation. The activities of the project will not involve any pesticide application, will not include activities in forest areas or natural habitat areas, and will not relate to protection of dams. Hence OP 4.04, OP4.09, OP4.36 and OP 4.37 will not be relevant as well.

The World Bank access to information policy will be directly followed. The project environment documents will be made available (in English and Bengali) to the public.

3. Environmental Assessment

The World Bank requires environmental screening and classification for all investment projects proposed for Bank financing, to help ensure that they are environmentally and socially sound and sustainable. Careful consideration needs to be given to potential environmental impacts and risks associated with the proposed grant project. Judgement is exercised with reference to the policy expectations and guidance, real impacts on the ground, and established regional and Bank-wide precedence and good practice. Since the OP/BP 4.01 covers all important aspects of the environment and the scale of interventions is small, it is justified to trigger only OP/BP 4.01 Environmental Assessment (EA).

EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. The borrower is responsible for carrying out the EA and the Bank advises the borrower on the Bank's EA requirements.

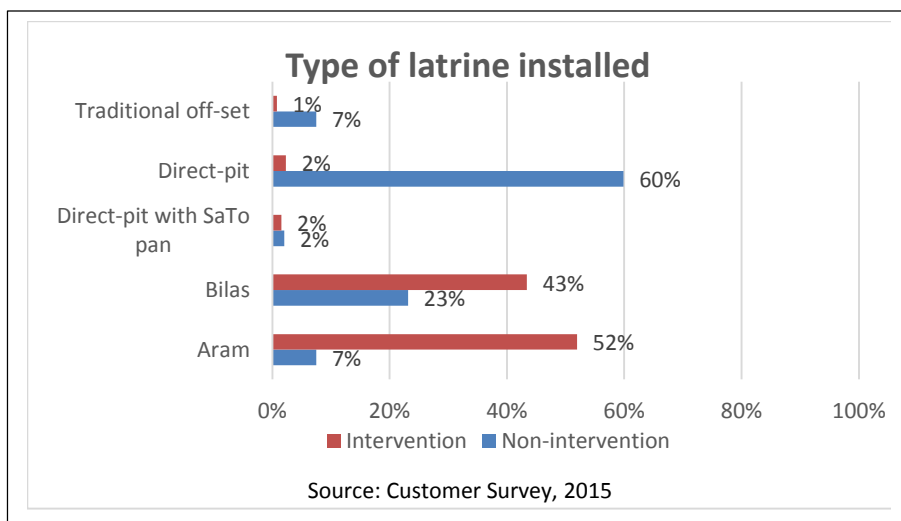
This OBA Sanitation Microfinance Program has been assessed as Environmental Category B. A basic screening, undertaken by an Environmental Specialist hired by PKSf, will be done to ensure all sanitation products and methods for installation are in compliance with World Bank environmental safeguards, and latrines are constructed in accordance with the mitigation measures identified in this ESMF. The Specialist

will be responsible for predicting and/or identifying any potential adverse environmental impacts arising from project activities, and for developing measures as needed to mitigate/eliminate/offset/reduce impacts to acceptable levels. The Environmental Specialist will also conduct semi-annual field visits to ensure environmental compliance.

3.1 Lessons Learned and Reflected in the Project Design

The government’s commitment to spreading the idea that latrine use is important for household health and development may have been the cornerstone for influencing the social norms in favor of improved sanitation. The small-scale local sanitation entrepreneurs (LEs) also played vital role to make sanitation services available to rural households, which created demand among the communities. The promotion of low cost options helped motivate the hard-core poor households to stop traditional practices of open defecation and adopt the new practice of fixed point defecation.

The Water and Sanitation Program (WSP) of the World Bank piloted a sanitation marketing initiative to support rural households for upward movement from basic to hygienic sanitation. Product development, a key part of this initiative, promoted single and twin pit offset latrines branded as ‘Aram’ (a Bengali word meaning ‘Comfort’) and ‘Bilash’ (a Bengali word meaning ‘Luxury’), with costs ranging from US\$ 45 to US\$ 220 . WSP already trained over 2000 entrepreneurs to construct these types of latrines. In the last three years, 458,528 hygienic latrines sold under the initiative have enabled 2.3 million people to move from unhygienic to hygienic sanitation.



The hygienic latrines are structurally sound, confining waste from the user and the surrounding environment. Offsetting the latrine pit helps to improve separation of the waste; however, contamination can also occur during the pit emptying process. Using a twin pit latrine minimizes this risk by allowing fecal sludge to be contained for the necessary 18-24

months for the decontamination process to occur. After the waste has composted, it can be safely disposed. Considering this, WSP is promoting the following technical aspects to reduce environment pollution.

The project supports offset pit latrines, further encouraging households to install dual pit latrines. The offset pit latrine is easy to clean, and the option of dual pits allows households to use a second chamber when the first one becomes full. However, constructing two pits is more costly, so to overcome the cost barrier, a flexible connection pipe with a single offset pit technology has been introduced. After the first pit is filled, a new pit can be constructed and the connection pipe transferred to the new pit. This allows the investment to be deferred to a later stage.

The delivery pipe is set up ten inches below the top of pit to cover the feces by a ten inch thick soil layer when pit is filled up, preventing the eggs of parasites. The first ring of the pit is constructed six inches above the ground level for protection of rain/flood water from the pit during monsoon season. Promoting a thick sand layer surrounding the pit also prevents groundwater pollution.

A customers' survey was conducted in February 2016, indicating that in the intervention areas, 95% of the latrines are hygienic with offset pit, and in the non-intervention areas, only 30% are hygienic.

3.2 Potential risk of ground pollution from on-site latrines

There is little information about survival of either viruses or bacteria in groundwater, although it appears that low temperature favors long survival times. Enteric bacteria may survive in cool groundwater for more than three months. Field experiments indicate that the maximum distance that viruses and bacteria travel in groundwater before being destroyed is equal to the distance traveled by the groundwater in about ten days.

Soakage pits pose a risk to health where there is an inadequate separation between the pit and the groundwater table. Under these circumstances, pathogens may contaminate water supply in the vicinity. However, where the pit is well above the groundwater table, water may be safely abstracted from a well or borehole a few meters away from a latrine. In saturated zone (below the ground water table), bacteria and viruses have been observed to travel several hundred meters with groundwater. As such, it is very difficult to establish a safe minimum lateral spacing between a water supply and an on-site sanitation unit in saturated soil because of complexity of factors such as permeability and hydraulic gradients that control saturated flow rate.

3.3 Reducing the pollution from a pit latrine with a barrier of sand

In unsaturated soil conditions, that is, where the distance between the bottom of the pit and the maximum ground-water level throughout the year is 2 meters or more, the pits can be located at a minimum distance of 3 meters from the drinking water sources such as tube wells and dug wells if the effective size (ES) of the soil is 0.2 mm or less. For coarser soils (with ES greater than 0.2 mm), the same distance can be maintained if the bottom of the pit is sealed off by an impervious material, such as puddle clay or plastic sheet, and a 500 mm thick envelope of fine sand of 0.2 mm ES is provided all-round the pit.

In wet pit or saturated soil conditions, that is, where the distance between the bottom of the pit and the maximum ground-water level during any part of the year is less than 2 meters, the pits can be located at a minimum distance of 10 m from the drinking water sources, such as tube wells and dug wells, if the ES of the soil is 0.2 mm or less. For coarser soils (with ES more than 0.2 mm), a minimum distance of 10 meters should be maintained if the pit is sealed off by an impervious material, such as puddle clay or plastic sheet, and a 500 mm thick envelope of fine sand of 0.2 mm ES is provided all around the pit.

Based on this assessment, and in accordance with the operations guidelines that has been provided to local entrepreneurs, which includes detailed written and visual instructions for hygienic latrine construction, the following mitigation measures have been put in place:

- In both of these cases, the sand envelope should be taken up to at least 2 meters above the highest possible maximum water level, and edges chamfered to see that no water stagnates on top of the sand filling.

- Where the bottom of the pit is submerged below the maximum ground-water level, the top of the pit should be raised above the ground level, if necessary, so that the inlet pipe into the pit is at least 0.75 meters above the maximum ground water level.
- The sand envelope is taken up to 0.3 meters above the top of the inlet and confined suitably to exclude any surface drainage, including rain water, from directly entering the sand envelope.
- In mound type latrines, 1 meter of earth filling should be provided for at least 0.25 meters beyond the sand envelope, with the edges chamfered to lead away the rain or surface water; the honey-comb brick work for the pit lining should be substituted by brick work in cement mortar 1 : 6 with open vertical joints, that is, without mortar.

3.4 Maintaining a safe distance from water supply mains

Local entrepreneurs are also advised to implement the following measures to ensure latrines are constructed an appropriate distance away from water supply mains.

Lateral distance between the leaching pit and the water main should be at least 3 meters, provided the water table does not rise during any part of the year above the pit bottom, and the inlet of pipe or drain to the leach pit is below the level of water main. If the water table rises above the bottom of the pit, the safe lateral distance should be kept as 8 meters. If this cannot be achieved, the pipes should be completely encased to a length of at least 3 meters on either side of the pit.

When the pits are located either under the foot-path or under the road, or the water supply main is within a distance of 3 meters from the pit, the invert of the inlet should be kept at least 1 meter below the existing water mains. This would ensure that the liquid level in the pits does not reach the level of the water main.

The water pipe should not cut across the pit, but where this is unavoidable, the water pipe should be completely encased for a length of 3 meters on either side of the pit, including the portion across the pit to prevent infiltration or exfiltration. No joint of water main should be permitted in the pit.

3.5 Gender, Indigenous Peoples & Citizen Engagement

This project is expected to also have positive social outcomes, due to the health and social benefits of providing hygienic sanitation to poor households, including fewer incidences of diarrheal and other WASH related diseases. Most (around 90%) of household loan recipients would be females and would take into account female preferences, such as adequate space for menstrual hygiene. Considering the convenience and security of female users, all toilets will have a proper superstructure with lockable doors. Where possible households will be motivated to construct toilets adjacent to their houses / bedrooms rather than the legacy of 'out house' latrine construction. Materials for awareness raising have already been developed through a separate Bank executed TA (P156017).

The project will likely be extended to geographic locations where indigenous peoples (IP) live, and therefore, the project triggers OP 4.10 for IPs. However, availing the facilities/services/products is purely on a voluntary basis for all paying customers (including IPs). As all beneficiaries will be involved in the selection of construction firms and sanitation products to be installed, IPs have the opportunity to select firms and products according to their preferences. No negative impacts are anticipated towards IPs; rather, activities under the project will ensure statutory rights and privileges of IPs, and that their customs and norms are not hampered or disturbed, rather complied with.

Project beneficiaries will have the opportunity to provide feedback on the program through the IVA, which will visit a sample of households which have participated in the program on a quarterly basis. The IVA will

carry out customer satisfaction survey (on a sample size) within four months of construction. All credit groups will be consulted about the multiple options of toilets. The IVA will offer households a simple survey, with questions pertaining to the ease of the process, the quality and functionality of the latrine, the installation process, and general satisfaction with the project, providing also the opportunity to discuss any issues, challenges, or suggestions for further improvement. PKSf will hire an independent agency (IVA). A specific indicator is included within the Results Framework of the project addressing household satisfaction, which will be assessed on a 5-point scale, from “very unsatisfied” to “very satisfied” with the project. Communication materials to raise awareness amongst project beneficiaries of different latrine options have already been developed and a firm has already been hired for raising awareness under a separate Bank executed TA (P156017).

4. ESMF Roles and Responsibilities

4.1 Table of Roles and Responsibilities

Stakeholder	Roles and responsibilities for implementing Environmental Management Framework
PKSF(Environmental Program Officer)	<ul style="list-style-type: none"> • Approval of ESMF • Hire Environmental Specialist for the position of Environmental Program Officer, with overall responsibility for environmental compliance (with funding from GPOBA) • Ensure due diligence to related government rules (laws, ordinance, acts, etc.) and World Bank Operational Policies and guidelines related to environment are being followed during implementation. The ESMF will serve as the basis for ensuring compliance. • All types of latrine construction to be funded under the project will be subject to an environmental screening in order to prevent negative environmental impacts. • Provide guidance to PO’s and local entrepreneurs, including through training manuals • Provide training to independent verification agent (IVA) on latrine construction standards related to environmental safeguards • Undertake semi-annual field visits to a sample of households/communities to ensure environmental compliance • Take remedial measures (if required) based on field visit findings (only with World Bank concurrence) • Prepare semi-annual monitoring report with findings, and share with the World Bank.
Local Entrepreneurs (construction firms)	<ul style="list-style-type: none"> • Participate in trainings to understand environmental safeguards policies and mitigation measures • Carry out appropriate mitigation measures, as identified in this ESMF and in the operations guidelines, during latrine construction.

Independent Verification Agent (IVA)	<ul style="list-style-type: none"> The IVA, a third party verification agent hired by PKSF, will be responsible for verifying that latrines constructed under the project have been done so in accordance with standards set by PKSF (quarterly, and on a sample basis). These standards will ensure compliance with safeguard policies and indicated mitigation measures.
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4.2 Disclosure

PKSF will follow the disclosure requirements of the World Bank on environmental and social documentation. After clearance from the World Bank, the draft final version of the ESMF will be posted in the website of PKSF in English and Bangla, and will be kept in the offices for further comments and inputs. It will be disclosed in English by the World Bank, and made available at the World Bank’s Info Shop. The POs will also make the hardcopy available at their head and local offices.

5. Grievance Redress Mechanism

The Grievance Mechanism will be the same for both SECVDPD and ESMF under the project. A specific staff, to be known as Grievance Redress Management Officer (GRMO), will be assigned with each Partner Organization, tasked with receiving of and responding to any grievance from the project customers/beneficiaries and/or other stakeholders. A Grievance Redress Committee (GRC) will be formed at district level comprising of the following;

- | | |
|--|------------------|
| • Upazila Chairman/vice Chairman (from the project area) | Chairperson |
| • Representative of the partner organization | Member Secretary |
| • UP Chairmen/Women Ward Member (from the project area) | Member |
| • Project beneficiary representative (male) | Member |
| • Project beneficiary representative (female) | Member |

The GRC will address all complaints/grievances related to the project and meet as and when necessary. All cases of grievance will be duly recorded by the Member Secretary and will be maintained in the book of records. At least one of the GRC members, where applicable, will be from the ethnic minority communities.

However, a key approach of resolution of grievance will be based on village level mediation and arbitration (*shalish* and *mimangsha*) relying on the techniques of alternative dispute resolution. In such cases, and where this is accepted by the aggrieved parties, it will operate through village consultation meetings in presence of all the relevant stakeholders.

6. Monitoring and Reporting

The Project Management Unit of PKSF will establish a monitoring system involving the GMRO, senior Project Management Team and the project Safeguards Consultant. The safeguards monitoring at field

level will be done by the project team and based on that, semi-annual safeguards progress report will be prepared. These reports will be submitted to the World Bank and shared with the relevant stakeholders of the project.

7. Institutional Arrangements

The project will have common implementation arrangements both on environmental and ethnic minority related social safeguards. PKSF shall assume the overall coordination, planning, implementation and financing responsibilities. A full time Program Officer (Environment Safeguards) will be recruited who will ensure the necessary technical backstopping to the project management with regards to adherence to and implementation of the environment safeguards of World Bank and laws and policies of the Government of Bangladesh.

The Terms of Reference (TOR) of the Program Officer (Environmental Safeguards) is attached as an Annex to this document.

Annex-A: Terms of Reference Environmental Program Officer

A. Background

Bangladesh has made admirable progress in recent decades as regards access to basic sanitation. The National Sanitation Campaign from 2003 to 2012 of the Government of Bangladesh served as the key driver in this regard. As per the data from the WHO and UNICEF Joint Monitoring Program (JMP) 2014, 61 percent have access to improved sanitation³ and only one percent of Bangladesh's rural population still practice open defecation. However, only 37 percent people have access to hygienic sanitation⁴ and thus, despite the overall achievements, Bangladesh remains far behind in terms of realizing the UN Sustainable Development goals (SDGs) for sanitation which requires improved sanitation coverage for at least 69.5 percent of the population.

1. The GPOBA Sanitation Microfinance Program

Global Partnership on Output-Based Aid (GPOBA) is a multi-donor trust fund, established in 2003 and administered by the World Bank Group, designed to test the effectiveness of output-based aid (OBA) approaches to improve the delivery of basic services to the poor and marginalized communities in the developing world. GPOBA is providing a US\$ 3 million grant to support access to hygienic sanitation for low-income households in rural Bangladesh through a Sanitation Microfinance Program to be implemented by Palli Karma Sahayak Foundation (PKSF). This also includes the Association for Social Advancement (ASA) – one of the largest micro-finance NGOs in Bangladesh – in addition to 20 large, medium, and small scale micro-finance institutions (MFIs) selected by PKSF with experience in the water and sanitation sector.

The project includes 2 components, as follows;

- a. Component 1 (US\$ 2.4 million): OBA subsidies to increase access to household sanitation.** The World Bank will provide a US\$ 2.4 million grant to improve access to on-site sanitation for a total of approximately 170,000 low-income households, benefitting 850,000 people in rural areas. The one-off OBA subsidy will be available for low-cost technologies ranging from US\$ 45 - 128, which will reduce the total purchase price for households unable to pay the entire amount up front. The OBA subsidy will range from 10 – 12.5 percent of the total value of loan.
- b. Component 2 (US\$ 600,000): Implementation support for PKSF and independent verification agent (IVA).** US\$ 600,000 will be provided to PKSF for operational and implementation related costs, including project management, subproject monitoring and supervision, administering the OBA subsidy to the POs, hiring designated Environmental, Social, and Financial Management Specialists, and for hiring the IVA.

Under the program, PKSF will support local microfinance institutions (MFIs), also called Partner Organizations (POs) to provide sanitation loans to poor households through a nation-wide program in

³According to WHO-UNICEF Joint Monitoring Program (JMP), improved latrines ensure hygienic separation of human excreta from human contact. The minimum standard of this type of latrine is a pit-latrines with slab (not only separating human feces from the environment but also blocking the transmission of germs).

⁴Long-Term Sustainability of Improved Sanitation in Rural Bangladesh; WSP; June 2011

rural Bangladesh. With extensive training and capacity building support from PKSF and ASA under the project, pre-qualified local sanitation entrepreneurs will construct the hygienic latrines for targeted households according to the required standards. In many cases, existing latrine structures will be upgraded to meet hygienic sanitation standards rather than new construction. In this way, the project will support these households to move up the sanitation ladder from basic/improved latrines, which run the risk of environmental pollution, to hygienic latrines which fully confine waste from the user and the surrounding environment.

B. Objectives and Scope

The program is expected to reach 170,000 poor households in approximately 23 upazillas of 20 districts across Bangladesh (though specific geographic locations still undetermined) with affordable access to hygienic sanitation, through sanitation loans from participating microfinance institutions. Overall, the project is likely to have a positive impact, as the sanitation systems will contribute to a healthy living environment by ensuring the safe disposal of human waste. An Environmental and Social Management Framework (ESMF) is being prepared along with a standalone Small Ethnic Communities and Vulnerable Peoples Development Framework (SECVDPDP).

C. Major Responsibilities

The specific roles and responsibilities of the Program Officer (Environment) shall include, but are not limited to the following:

- Lead the environmental safeguard related activities in the project
- Develop, organize and deliver environmental training and orientation programs and workshops for the staff of the PKSF, Partner Organizations, local entrepreneurs, and the independent verification agent
- Environmental screening of latrine options and construction thereof
- Carry out regular field visit to assess the quality and adequacy of screening, ESMF, and also supervision of environmental activities
- Hold regular meetings with project management in PKSF
- Prepare and submit regular environmental monitoring and implementation progress reports
- Prepare good practice dissemination notes based on the experience gained from site supervision
- Work with PKSF management to strengthen its environmental capacity and mainstream integration of environmental consideration in project planning, implementation and operation

D. Qualifications

The Program Officer (Environment), preferably with post-graduation specialization in environmental engineering /environmental science relevant field, shall have at least 10 years of working experience related to preparation of Environmental Assessments, integration of environmental and social issues in the design, implementation and operation of rural infrastructure projects. Experience in community driven projects is preferred.

Annex-B: Example Questions for Screening of Environment Compliance

- What is the type of existing latrines? (are these single pit/ double pits/ twin pit latrine)
- Are toilets at least 10meters from any drinking water source?
- Any Risk causing the contamination of drinking water?
- Will the latrine cause poor water drainage and increase the risk of water-related pollution?
- Create a risk of increased soil degradation or erosion?
- Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)?
- Will there be hand-washing facilities with soap available
- Will the latrines be cleaned regularly
- Be located within or nearby environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?
- Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?
- Is there any threat of spread of pathogens due to the operation of the existing facilities?