



# Audit Report

for

**Independent Audit on the Effectiveness of the Environmental and Social Management System under ECCCP-Flood of PKSF**

March 2023



C $\approx$ GIS

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## **Acknowledgments**

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## Abbreviations and Acronyms

AE	Accredited Entity
CAP	Corrective Action Plan
CCAG	Climate Change Adaptation Group
CEGIS	Center for Environmental and Geographic Information Services
DC	Deputy Commissioner
DO	Dissolved Oxygen
DPHE	Department of Public Health and Engineering
ECCCP	Extended Community Climate Change Project
EHS	Environment Health and Safety
EOP	End of Project
ESAP	Environmental and Social Action Plan
ESCA	Environmental and Social Compliance Audit
ESDO	Eco-Social Development Organization
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
EY	Evaluated Year
FGD	Focus Group Discussion
GCF	Green Climate Fund
GHG	Greenhouse Gas
GRM	Grievance Redress Mechanism
HH	Household
IE	Implementing Entity
KII	Key Informant Interview
NGO	Non-Government Organization
PKSF	Palli Karma-Sahayak Foundation
PPE	Personal Protective Equipment
SCA	Social Compliance Audit
TW	Tube-Well
UNO	Upazila Nirbahi Officer
UP	Union Parishad



## Executive Summary

The “Extended Community Climate Change Project-Flood (ECCCP-Flood)” is being implemented by Palli Karma-Sahayak Foundation (PKSF) in five flood-vulnerable districts of Bangladesh, namely Nilphamari, Lalmonirhat, Kurigram, Gaibandha, and Jamalpur. The project aims to provide climate-resilient shelter, income, water, and sanitation to the poor and marginalized people in flood-prone areas. The Green Climate Fund (GCF) categorizes the project as Category-C, which involves minimal or no impact. However, an audit has been conducted to assess the effectiveness of the project’s environmental and social management system, including its Environmental and Social Action Plan (ESAP) and PKSF’s Environmental Health and Safety Guidelines, to ensure compliance and effectiveness in implementing ESAP activities.

The audit focused on environmental compliance, including air quality, water quality, noise, topsoil management, and biodiversity conservation. Face masks and water sprinkling methods were used to suppress the airborne dissemination of SPM and other fine particles, and deep tube wells were installed to ensure the availability and quality of drinking water. The audit team confirmed that the allowable limit of the selected parameters is being complied with the target limit, except for the high concentration of iron (Fe) in some unions. The high concentration of Fe might have arisen due to the sub-project site’s Geological feature, i.e., water table, and natural weathering of iron-bearing minerals and rocks. However, the project IEs have taken the necessary steps to mitigate this impact. Drinking water from most tube wells is fine and pure, except for one installed tube-well in Rowmari upazila, which was odorous and muddy and is being taken care of. The project activities did not cause any sound pollution, and the sand and soil required for plinth raising were sourced from fallow land, dry ponds, borrow pits, and other rivers adjacent to land where the topsoil had already been lost. Diverse native fruit tree seedlings, saplings, trees, and medicinal plants were observed at the homestead area of each project site. Some non-native species also thrived in the plinth-raising areas of Fulchari, Saghata, Chilmari, Char Rajibpur, and Dimla upazilas naturally regenerated or through pollination.

The audit also concentrated on several social compliance issues. Beneficiaries received equal payment for their efforts according to the allocated project funds; each work site included a first-aid kit for basic emergency medical assistance, but no accidents or injuries were reported. Always adequate personal protective equipment was available to ensure the workers’ safety (PPE). There is no proof that children were employed. At the project site, neither project participants nor staff engaged in sexual harassment of locals, nor were there any significant problems with the community’s health, safety, or security. No major issues of land acquisition, resettlement, or relocation were notified anywhere. No ethnic community was found and no project activities were located at cultural heritage sites. Beneficiaries are aware of the GRM committee, which is typically made up of 3 to 7 members and handles verbal complaints within 7 to 15 days in the majority of situations. Nonetheless, it has been noted that there is limited knowledge of the GRM committee in Dimla, Phulchari, Madarganj, and Islampur, and in some locations, people are unaware that such a committee even exists. Overall, the ECCCP-Flood project is effectively implementing its ESAP activities and complying with environmental and social safeguards. The project is making a significant contribution to people-centered holistic development, including climate change adaptation and mitigation in Bangladesh’s highly flood-prone North-Western hydrological region.

# 1. Introduction

## 1.1 Background

Palli Karma-Sahayak Foundation (PKSF) is a “non-for-profit” organization working for the vulnerable people of Bangladesh to eradicate poverty and improve their livelihood. The vision of this organization includes: poverty eradication, inclusive, people-centered, equitable, and sustainable development, and creating a country where all citizens live healthy, appropriately educated and empowered and dignified. Since its inception, PKSF has been relentlessly putting efforts into making a significant contribution to people-centered holistic development, including climate change adaptation and mitigation through efficient implementation of various programs and projects. In continuation of this, the “Extended Community Climate Change Project-Flood (ECCCP-Flood)” under the Green Climate Fund (GCF) is being implemented in five flood vulnerable districts in Bangladesh namely Nilphamari, Lalmonirhat, Kurigram, Gaibandha, and Jamalpur. The project area falls in the North-Western hydrological region of Bangladesh which is highly vulnerable because of flooding, particularly monsoon floods. This floodplain region is particularly vulnerable to flooding due to its geographic location and socio-economic conditions. People living in the floodplain have historically made adjustments by adapting their agricultural practices, cropping patterns, and settlements to annual flooding. But the high or abnormal floods (bonna), associated with widespread damage to standing crops, properties, and loss of human lives, are viewed as a calamity or disaster. As a result, those displaced migrate only a short distance; a large majority of the displaced adapt to their river-dependent lives and livelihoods.<sup>1</sup> However, the twin forces of erosion and flooding have a toll on the floodplain people, who lead a poverty-stricken life, particularly those displaced and live in chars and along the embankments. Char dwellers are mostly poor and highly vulnerable to natural hazards of flood and erosions. The impact of flooding in this area is severe, causing loss of life, displacement of people, damage to infrastructure, and disruption to essential services such as healthcare and education. In addition, the floodwaters can contaminate drinking water sources, leading to outbreaks of water-borne diseases. The socio-economic conditions in the floodplain region of Bangladesh exacerbate the impact of flooding. Many people live in informal settlements or slums that lack basic amenities such as sanitation and clean water. These communities are particularly vulnerable to flooding as their homes are often built on low-lying land or on the banks of rivers and canals. During a flood, people in the floodplain region face many challenges. They may be forced to evacuate their homes and seek refuge in overcrowded shelters, where they may be at risk of contracting diseases. Many people also lose their livelihoods as cultivated land is destroyed, and businesses are forced to close.

Moreover, the long-time sedimentation has raised the river bed level and decreased the carrying capacity of the rivers. Consequently, the water level rises frequently to the danger level, even with a very small amount of flood water from upstream hilly regions. As a result, lives, livelihoods, and the local economy in the floodplain area have been impacted regularly. In this consideration, the project mentioned above has been undertaken. There are some major activities performed to implement the project. The major activities are cluster-based homestead plinth raise, reconstruction of resilient houses on raised plinths, installation of tube wells, construction of climate-resilient sanitary latrines, goat/sheep rearing in the slatted houses, financial support for goat/sheep purchases, and flood-tolerant crop cultivation.

The ECCCP-Flood project is placed under Category-C, according to the GCF’s Environment and Social Safeguard Policy, because the project involves minimal or no impact categorically. However, this audit has assessed the effectiveness of the project’s environmental and social management system comprising its

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<sup>1</sup> C. E. Haque and M. Q. Zaman, Human Responses to Riverine Hazards in Bangladesh: A Consideration for Sustainable Floodplain Development. *World Development*, Vol. 21(1), 1993.

‘Environmental and Social Action Plan (ESAP) and PKSf’s ‘Environmental Health and Safety Guidelines to ensure the compliance and effectiveness of the implementation of the ESAP activities.

Center for Environmental and Geographic Information Services (CEGIS), a center of excellence, has been entrusted with auditing the Extended Community Climate Change-Flood Project (ECCCP-Flood). This auditing has evaluated the effectiveness of the Environmental and Social Management System of the ECCCP-Flood project against the targeted objectives. Besides, this study has suggested a Corrective Action Plan (CAP) on the non-compliance issues (if any) to ensure better project outcomes and successful implementation of the project activities.

## **1.2 Study Objectives**

### **A) Broad Objective**

The study’s broad objective is to assess and explore the effectiveness of the implementation and compliance status of the Extended Community Climate Change Project-Flood (ECCCP-Flood) following the Environmental and Social Management System, including its Environmental Health and Safety (EHS) guideline of PKSf.

### **B) Specific Objectives**

Concerning the broad objective, the audit study has the following specific purposes. The specific objectives of the Audit study are to:

- Assess the implementation of ESAP activities are following GCF’s ESS Standards;
- Assess PKSf’s strengths and weaknesses in the operation of the ESS system. Assess the effectiveness of the implementation of the ECCCP-Flood Project’s Environmental and Social System comprising its Environmental and Social Action Plan (ESAP) and PKSf’s Environmental and Safety Guidelines;

## **1.3 Scope of Work**

Following the Terms of Reference, this study has been conducted based on the following scope of works: The scope of work is:

- Assessment of the effectiveness of the project’s environmental social management system congruent with GCF’s Environmental Social Safeguard (ESS), Environmental and Social Action Plan (ESAP) & PKSf’s environmental and health safety guidelines;
- Review the PKSf’s management of ESS, and identify strong and weak points in the operation of ESS;
- Assessment of the compliance and non-compliance issues related to commitments of PKSf;
- Conducting consultations with project beneficiaries, Implementing Entities (IEs), the project Management unit of PKSf, and other relevant stakeholders;
- Preparing Audit Report

## **1.4 Study Area**

The project covers five (5) flood-vulnerable districts with a high level of flood risks, high poverty level, water scarcity, and food insecurity in Bangladesh. The places where the project activities are running are mentioned below, and their locations are shown in Map.

**Table 1.1: List of Study Area**

Sl. No	Districts	Upazilas	Unions	Villages
1	Nilphamari	Dimla	Tepakhoribari	8
			Khogakhoribari	1
			Purbo Chatnai	1
			Poschim Chatnai	1
2	Jamalpur	Sarishabari	Satpowa	9
			Pogoldigha	9
		Madarganj	Balijuri	8
			Charpakerdha	9
		Malandah	Nayanagar	6
			Ghosherpara	8
		Islampur	Goalarchar	2
			Patharchi	6
			Belgacha	10
			Polabanda	2
			Kulkandi	2
3	Gaibandha	Fulchari	Erendabari	10
			Fazlupur	6
			Udakhali	1
		Saghata	Saghata	12
			Holdia	7
			Ghuri Dah	3
			Varot Khali	2
4	Kurigram	Chilmari	Chilmari	6
			Romna	7
			Noyerhat	9
			Austomir Char	11
		Chor Rajibpur	Kodalkati	16
		Rowmari	Shoilmari	7
			Bondoher	11
			Rowmari	7
			Char shoilmari	10
			Dantbhanga	8
5	Lalmonirhat	Lalmonirhat Sadar	Mogholhat	3
			Kulaghat	3
			Khuniagach	7
			Rajpur	16

## **1.5 Limitations of the Study**

The study area has the coverage of 11 Upazilas and 5 Districts. In collecting data, a total 13 Focus Group Discussions (FGDs) and 14 Key Informant Interviews (KIIs) have been conducted with beneficiaries, Implementing Entities (IEs), and other relevant stakeholders. According to the Contract, this study has to complete within 76 Days. However, the application of FGDs and KIIs were conducted, whereas the physical presence of the study team was mandatory. Collecting and compiling data and reporting and completion of all other activities will be very challenging within the contract period of the study. In this consideration, the time to conduct the study is the major limitation of that study.

## **1.6 Structure of the Report**

**Chapter 1:** This chapter briefly states about the background, study objective, scope of works, and Study limitations;

**Chapter 2:** Chapter two discussed the project brief, project activities, and Implementing Entities;

**Chapter 3:** This chapter focuses on the study approach and methodology which were followed to conduct this study;

**Chapter 4:** Chapter 4 analyses the ESS Policy and Safeguards, and details of the assessment matrix of ESS and related Questions and Assessment Matrix of ESS and related Questions;

**Chapter 5:** This chapter presented the auditing findings on related environmental and social compliance aspects;

**Chapter 6:** This chapter provides recommendations based on the study findings;

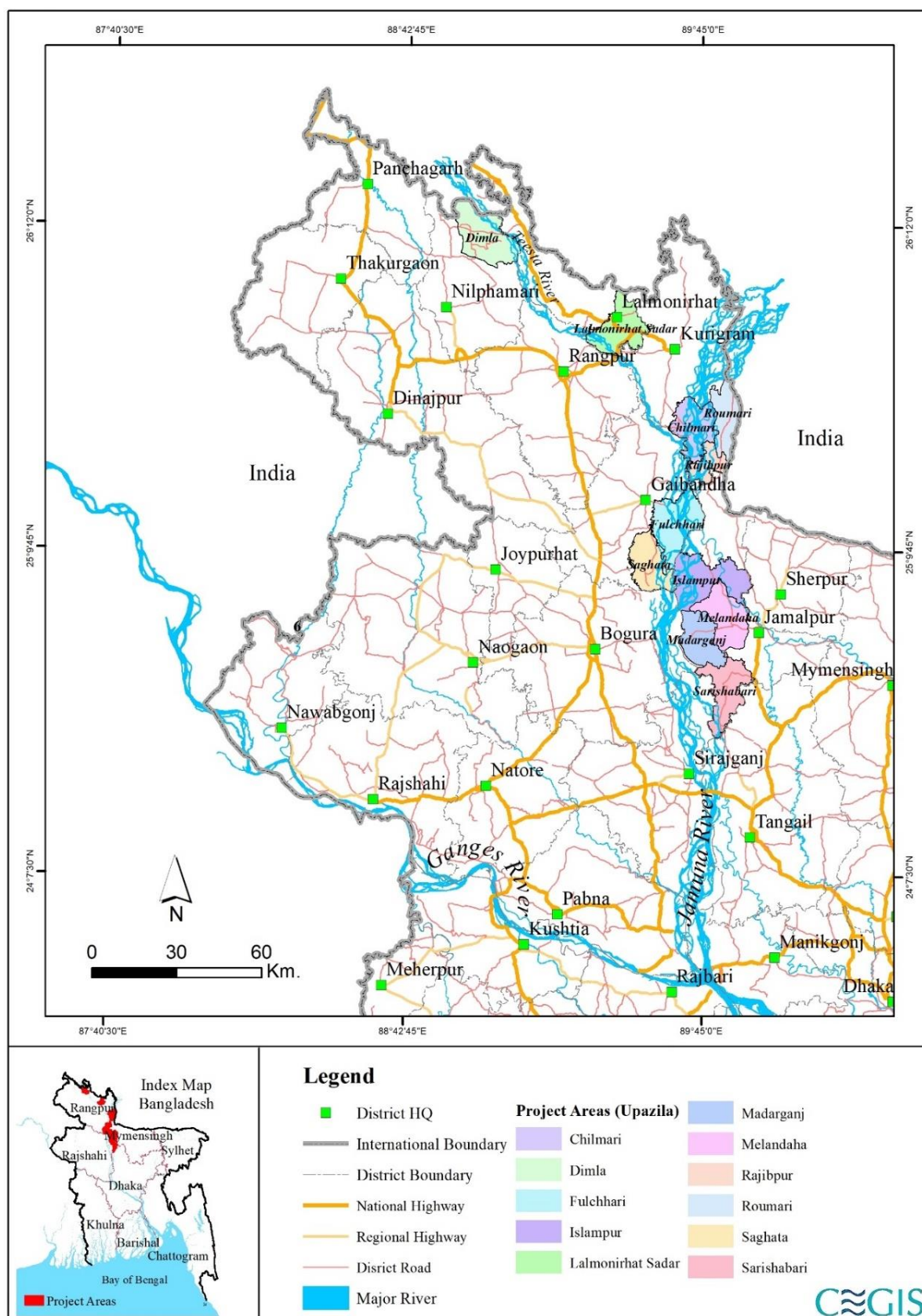


Figure 1.1: Locations of the Project Area

## **2. Description of the Project**

### **2.1 Background**

Bangladesh is one of the most vulnerable countries in the world to natural disasters due to its geography, population density, poverty, and inadequate infrastructure. In addition to floods, the country is also prone to cyclones, tidal surges, and earthquakes. The country's vulnerability is exacerbated by climate change, which is causing more frequent and severe natural disasters. The country experiences frequent floods, which occur mainly during the monsoon season. Floods are a major natural disaster in Bangladesh and can cause significant damage to property, infrastructure, crops, and livelihoods. Flooding leads to various vulnerabilities, having a tremendous impact on the life and livelihoods of the people in the floodplain. The char people, primarily farmers and fishermen, are particularly vulnerable to the effects of flooding due to their location and lack of resources. Women and children are especially at risk during floods. Women often bear the responsibility of caring for children and the elderly and are more likely to be trapped or injured during a flood due to their reduced mobility and limited access to resources. Conversely, children are more susceptible to water-borne diseases, malnutrition, and injuries due to contaminated water and lack of sanitation. Floods can also have a significant impact on the economy of the char people. Crops and livestock may be destroyed, fishing boats and equipment may be damaged, and transportation infrastructure may be disrupted, leading to loss of income and reduced access to essential goods and services. Climate-induced disasters affect housing, water, and sanitation. ECCCCP-Flood will provide these people with climate-resilient shelter, income, water, and sanitation.

This area's main sources of income are agriculture and agricultural labor, which are highly flood-prone. Floods destroy their crops every year. As agriculture declines, several of them become poorer. Women in Char regions are more vulnerable to floods because they care for children, older family members, poultry and livestock, cook, and other household duties. Adolescent girls and women are sexually harassed on embankments and flood shelters. These underprivileged areas struggle to provide for their daily needs and are ill-equipped to handle new dangers.

### **2.2 Project Activities**

The Extended Community Climate Change Project-Flood (ECCCCP-Flood) is being implemented in 5 flood-vulnerable districts in Bangladesh, namely Nilphamari, Lalmonirhat, Kurigram, Gaibandha, and Jamalpur. The project has selected 90,000 (20,000 HHs) participants as the project has a target to support 90,000 (20,000 HHs) vulnerable people in the selected 5 districts with a high level of flood risks. They account for 0.01% of the total population of the selected 5 districts and 0.07% of the flood- vulnerable population.

There is number of activities on-going currently. The major project activities are:

- Cluster-based homestead plinth raise
- Reconstruction of resilient houses on raised plinths
- Installation of tube-wells
- Construction of climate-resilient sanitary latrines
- Goat/sheep rearing in the slatted houses
- Financial support for goat/sheep purchases, and
- Flood-tolerant crop cultivation



**Figure 2.1: Project Activities of the ECCCP Flood Project**

In the riverine char land of the Brahmaputra and Teesta rivers, the project will use alluvial sand to raise the foundations of the homes of 45,000 (10,000 HHs) vulnerable people above the flood level. Currently, the project helps the people who live on the raised plinths grow vegetables and plant trees all year. Also, the project will build 500 shallow tube wells that can withstand floods and provide safe drinking water and 2,810 toilets. At the monthly Climate Change Adaptation Groups meetings, important health and hygiene education will be given (CCAGs). Various activities have been performed by the Implementing Entities (IEs) under this project. There are 9 Implementing Entities working in 11 upazilas. The Name of IEs (Implementing Entities) and their working area are given below:

**Table 2.1: The list of Project Implementing Entities (IEs)**

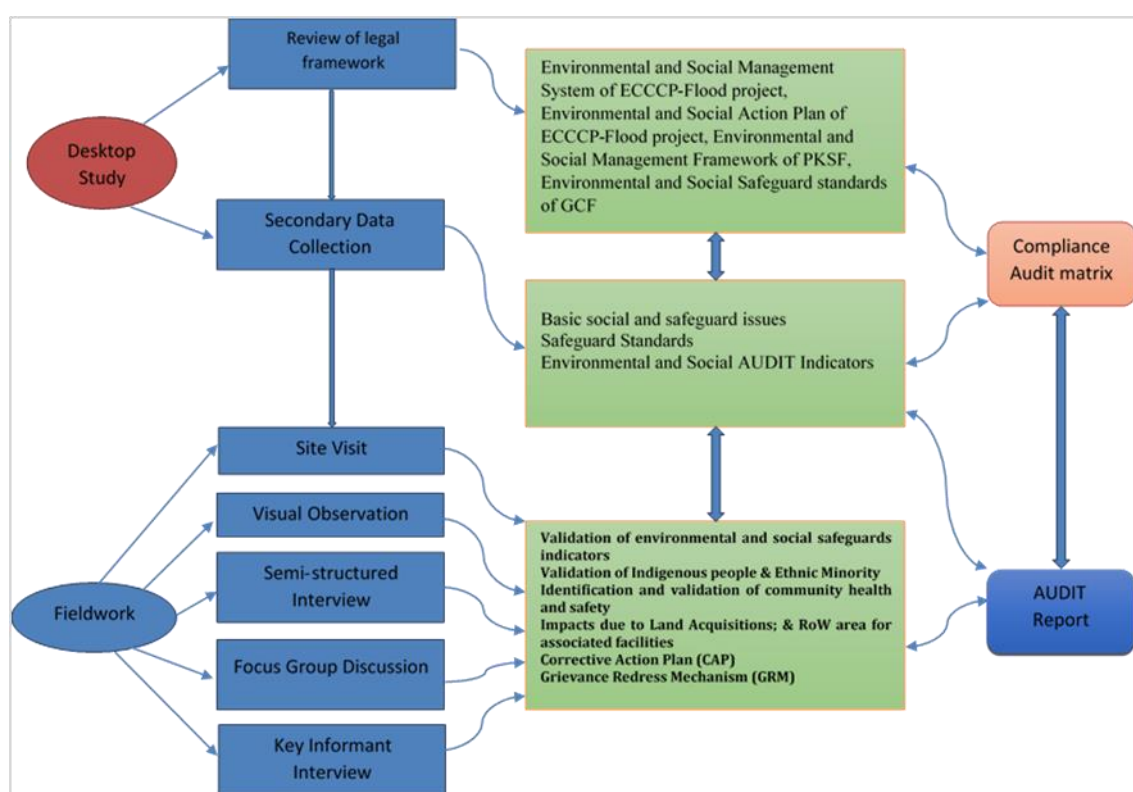
Sl.	Name of IEs	Working Areas	
		District	Upazila
1	Eco-Social Development Organization (ESDO)	Gaibandha	Fulchari
		Jamalpur	Madarganj
		Jamalpur	Sarishabari
2	Society for Social Services (SSS)	Jamalpur	Islampur
		Jamalpur	Malenda
3	TMSS	Gaibandha	Saghata
4	Padakkhep Manabik Unnayan Kendro (PMUK)	Kurigram	Rowmari
5	National Development Organization (NDP)	Kurigram	Chilmari
		Kurigram	Char Rajibpur
6	Self-Help and Rehabilitation Program-SHARP	Nilphamari	Dimla
7	Gram Bikash Kendro (GBK)	Nilphamari	Dimla
8	NAZIR (Natun Zibon Rochi)	Lalmonirhat	Lalmonirhat Sadar
9	People's Oriented Program Implementation (POPI)	Lalmonirhat	Lalmonirhat Sadar



### 3. Approach and Methodology

### 3.1 Approach

The Environmental and Social Compliance Audit (ESCA) looks at how the project intervention has affected the environment and society in the past and the present. The goal of this ESCA was to: a) figure out if the actions were and are in line with the safeguard principles, requirements, and national laws; b) find and plan the right steps to take to deal with the unresolved issues; and c) make a Corrective Action Plan (CAP) if there are any non-compliance issues. This audit will help determine if there are any GAPS in how the project is being implemented and suggest a plan of action for compliance based on non-compliance with environmental and social safeguards. The study will check for compliance and non-compliance and end with a list of suggestions and a plan for making things right.



**Figure 3.1: Process Flow Diagram for Conducting the Environmental and Social Audit**

### 3.2 Methodology

### 3.2.1 Desk Study/Literature Review

In conducting this Audit study, Project Technical Reports Pre-Feasibility report, Environmental and Social Management System of ECCCCP-Flood project, Environmental and Social Action Plan of ECCCCP-Flood project, Environmental and Social Management Framework of PKSf, Environmental and Social Safeguards policy and standards of GCF, Environmental and Social Management Plans of the project collected from PKSf and reviewed to understand the objectives. Basic data in connection with Environmental, Social and Safeguard issues will also be collected from the documents.

### 3.2.2 Sampling

At the initial sampling stage, the study area, i.e., districts, upazila, and unions, were selected purposively. After that work, the selected districts and upazilas were included for data collection. However, unions were selected purposively based on the highest number of villages in unions and the presence of Implementing Entities (IEs). In this consideration, 13 unions under 11 upazilas of 5 districts have been selected.

**Table 3.1: Sampled Areas Included in the Study**

Sl.	Study Area		
	District	Upazila	Union
1	Gaibandha	Fulchari	Erendabari
2		Saghata	Saghata
3	Jamalpur	Madarganj	Charpakerdha
4		Sarishabari	Pogoldigha
5		Islampur	Belgachi
6		Malenda	Ghoshherpara
7	Kurigram	Rowmari	Bondober
8		Chilmari	Noyerhat
9		Char Rajibpur	Kodalkati
10	Nilphamari	Dimla	Tepakhoribari
11			Khogakhoribari
12	Lalmonirhat	Lalmonirhat Sadar	Mogolhat
13			Rajpur
<b>Total</b>	<b>5</b>	<b>11</b>	<b>13</b>

### 3.2.3 Primary Data Collection Methods

Furthermore, five (5) Implementing Entities (IEs) were included in the Key Informant Interviews (KIIs) in this study.

The audit study will follow the ‘qualitative’ approach, which involves the following methods:

#### *Focus Group Discussions (FGDs)*

Focus Group Discussions (FGDs) were carried out with project beneficiaries, laborers, and community people to assess the environmental and social risks that could be caused by the implementation of the project, taking into consideration the Environmental and Social Safeguard (ESS). For the research team to understand the environmental and social issues in the chosen area covered by the project, a total of eleven (13) FGDs were carried out from 13 unions. Focus Group Discussions, on the other hand, were held to gain a better understanding of labor and working conditions, community health and safety, issues relating to land acquisition, the impact of project activities on the local cultural heritage, and stakeholder engagement and disclosure-related issues. In this context, a checklist was compiled, and a facilitator led the focus group discussions without being present to monitor them. The study took notes on the most important issues and analyzed whether or not complied with the regulations.

### Key Informant Interviews (KIIs)

Key Informant Interviews (KIIs) were carried out with a checklist with relevant key persons to collect data on environmental and social risks driven by the project. KII was carried out with 5 IEs and 5 GRCs from five districts, 2 Upazila officers from two divisions, and 2 concerned officials of PKSF. The list of stakeholders and the number of KIIs is given in the following table:

**Table 3.2: List of Stakeholders and Number of KIIs**

Stakeholders	Nos. of KIIs
Implementing Entities (IEs)	5
Grievance Redress Committee (GRC)	5
Upazila Nirbahi Officer	2
Concerned officials of PKSF	2

### Informal Interviews

The study team visited the project area and randomly interviewed beneficiaries, non-beneficiaries and community people following an informal interview method. No formal checklist was used; instead, the team tried to triangulate data and additional information needed for the assessment.

### Observation

The study team visited the project area and observed the project activities' interventions and associated environmental and social impacts. The systematic observation observed the compliance and non-compliance issues related to ESS. The observational data helped to triangulate data collected through FGDs and KIIs.

### Visual method

Finally, the study team captured photos of interventions and compliance and non-compliance issues and presented them in the relevant section of the report intending to document them visually.

In the following table, a summary of the applicable method by ESS is presented:

**Table 3.3: Environmental and Social Safeguards (ESS) and Applicable Methods**

Environmental and Social Safeguards (ESS)		Applicable methods for data collection
ESS 1:	Assessment and Management of Environmental and Social Risks and Impacts	Key Informant Interviews (KIIs)
ESS 2:	Labor and Working Conditions	Focus Group Discussions (FGDs) Informal interviews Observation
ESS 3:	Resource Efficiency and Pollution Prevention	Key Informant Interviews (KIIs) Informal interviews Observation
ESS 4:	Community Health, Safety, and Security	Focus Group Discussions (FGDs) Informal interviews Observation
ESS 5:	Land Acquisition and Involuntary Resettlement	Key Informant Interviews (KIIs) Focus Group Discussions (FGDs)
ESS 6:	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Key Informant Interviews (KIIs) Observation
ESS 7:	Ethnic Minority	Focus Group Discussions (FGDs)

Environmental and Social Safeguards (ESS)		Applicable methods for data collection
ESS 8:	Cultural Heritage	Focus Group Discussions (FGDs) Key Informant Interviews (KIIs) Observation
ESS 9	Financial Intermediaries	Financing this project will not involve the use of financial intermediaries. Therefore, ESS9 does not apply
ESS 10:	Stakeholder Engagement and Information Disclosure	Focus Group Discussions (FGDs) Key Informant Interviews (KIIs) Informal interviews

## **4. Analysis of ESS Policy and Safeguards**

### **4.1 Description of Relevant ESS**

The Environmental and Social Safeguards (ESS) of the Green Climate Fund (GCF) is a set of guidelines and requirements designed to ensure that GCF-funded projects are environmentally sustainable, socially responsible, and respect human rights. The ESS is a key component of GCF's commitment to supporting climate action that benefits people and communities while minimizing negative environmental and social impacts.

There are ten ESS, organized into three categories: Environmental and Social Assessment and Management. The ten ESS are as follows:

- **Assessment and Management of Environmental and Social Risks and Impacts:** This ESS requires that GCF-funded projects identify and assess potential environmental and social risks and impacts and develop plans to manage them;
- **Labor and Working Conditions:** This ESS requires that GCF-funded projects provide safe and healthy working conditions for workers and respect their rights to freedom of association and collective bargaining;
- **Resource Efficiency and Pollution Prevention:** This ESS requires that GCF-funded projects minimize their use of natural resources and prevent or mitigate pollution and other environmental impacts;
- **Community Health, Safety, and Security:** This ESS requires that GCF-funded projects protect nearby communities' health, safety, and security and consult with them on project design and implementation;
- **Land Acquisition Involuntary Resettlement:** This ESS emphasizes avoiding involuntary resettlement whenever possible. In cases where resettlement cannot be avoided, measures will be taken to minimize its impact, and appropriate strategies will be carefully planned and implemented to mitigate any adverse effects on displaced individuals and host communities who receive them;
- **Biodiversity Conservation and Sustainable Management of Living Natural Resources:** This ESS requires that GCF-funded projects conserve biodiversity and ecosystems and support the sustainable management of natural resources;
- **Indigenous Peoples:** This ESS requires that GCF-funded projects respect the rights of indigenous peoples and their traditional knowledge and ensure their participation in project design and implementation;
- **Cultural Heritage:** Cultural Heritage acknowledges the importance of preserving tangible and intangible cultural heritage to maintain continuity between past, present, and future generations. This standard outlines a series of measures to safeguard cultural heritage at every stage of the project life cycle;
- **Financial Intermediaries:** Financial intermediaries recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction.
- **Stakeholder Engagement and Informed Consent:** This ESS requires that GCF-funded projects engage with stakeholders, including affected communities, and obtain their free, prior, and informed consent;

In summary, the ESS of GCF represents a comprehensive set of requirements and guidelines for ensuring that GCF-funded projects are environmentally sustainable, socially responsible, and respect human rights. By adhering to these standards, GCF seeks to promote climate action that benefits people and communities while minimizing negative environmental and social impacts.

#### 4.2 Assessment of ESS in the ECCCCP-Flood project

The compliance auditing followed a comprehensive checklist of the Environmental and Social Safeguards (ESS) of GCF. A couple of questions with three possible answers—“compliance,” “non-compliance,” and “partially compliance”—will be used to verify each ESS. Following the results of the responses to the questions, partial compliance was shown as a percentage.

Furthermore, the Environmental and Social Action Plan (ESAP) prepared by the PKSf identified some potential risks and associated risk significance and proposed mitigation measures. This audit will also check whether or not the committed measures have been implemented properly and the mitigation status (mitigated, not mitigated, or partially mitigated).

#### 4.3 ESS requirement for ECCCCP-Flood Project

Environment and Social Safeguard (ESS) is the GCF’s overarching strategy and set of rules for incorporating environmental and social factors into decision-making and operations to manage environmental consequences and social risks efficiently and provide better results. It specifically relates to evaluating and managing risks and repercussions on the environment and society connected to projects funded by the GCF. These standard mandates that project proponents identify, evaluate, and address any potential environmental and social impacts of their projects.

Although the ECCCCP-Flood project has been classified as “Category-C,” it is anticipated to affect the surrounding area and residents. Eventually, these risks must be verified, inspected, and compliant with GCF’s Environmental and Social Safeguards (ESS). The main prerequisite for this project is ESS, which is summarized in the next section.

**Table 4.1: Environmental and Social Safeguards (ESS) and Key Requirements**

Environmental and Social Safeguards (ESS)	The key requirement for the ECCCCP-Flood project
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	Assess environmental Risks on realistic data and information Develop capacity of AE’s concerned people to deal with and manage ES risks
ESS2: Labor and Working Conditions	Have a mechanism and plan for a congenial working environment for laborers Supply and ensure the use of Personal Protective Equipment (PPE) Transparent employment mechanism
ESS3: Resource Efficiency and Pollution Prevention and Management	Assess the project-driven risks of environmental pollution, Set mechanisms, manage and mitigate pollution-related problems
ESS4: Community Health and Safety	Address and manage the project-driven impacts on the local host communities
ESS5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	Ensure hassle-free compensation for land losers in such a way that can restore their previous condition toward a better way
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Ensure that the project activities do not affect biodiversity

<b>Environmental and Social Safeguards (ESS)</b>	<b>The key requirement for the ECCCCP-Flood project</b>
ESS7: Ethnic Minority	Ensure that the indigenous people (if any) are not negatively affected by the project
ESS8: Cultural Heritage	Ensure that the project does not negatively affect existing cultural heritages
ESS9: Financial Intermediaries	Financing this project will not involve the use of financial intermediaries. Therefore, ESS9 does not apply
ESS10: Stakeholder Engagement and Information Disclosure	Ensure effective stakeholder engagement, and are well informed, etc.

## **5. Assessment of Environmental and Social Compliance**

### **5.1 Assessment of Environmental and Social Management**

#### **5.1.1 ESS 1: Assessment and Management of Environmental and Social Risk Impacts**

Project categorization is prepared by the PKSf itself, considering GCF's guidelines. Field-level information was collected to assess the category of this project. This categorization was accomplished through Environmental and Social screening, whereas the environmental and social risks and impacts of activities followed a checklist. This checklist was prepared concerning the guidelines of GCF's project categorization. All issues, e.g., resettlement, transboundary, indigenous community, community health safety, occupational health safety, chemical hazards, biodiversity, etc., were considered. The assessment report was submitted and reviewed by GCF. Additionally, the physical inspection was done by GCF to verify the authenticity of the categorization.

PKSF collected information about the environmental and social risks of the project through regular monitoring. During that monitoring, they considered the environmental, biodiversity, and social issues, and prepared quarterly monitoring reports. Besides, PKSf reviewed the GCF's rules and guidelines and completed the monitoring. A separate Environment and Climate Change Unit of PKSf worked to address this project's environmental and social risks. Additionally, they worked in a multidisciplinary team to solve any problem.

Due to project activities, the Implementing Entities (IEs) received several training from PKSf on the ESS and Environmental and Social risk. Moreover, the PKSf received training on Grievance Redress Mechanism from GCF. Finally, Accreted Entity (AE) and Implementing Entity (IEs) received training on the Grievance Redress Mechanism (GRM) and risk management from GCF.

### **5.2 Assessment of Environmental Compliance**

#### **5.2.1 ESS 3: Resource Efficiency and Pollution Prevention**

This Environmental Audit report aims to highlight the potential for improving social and environmental compliance by following the prescribed guidelines of PKSf and GCF. Providing an operational translation of national laws, ESAPs, and Environmental and Social Safeguards (ESS-1 and ESS-3), the report was demonstrated the current status of the environmental situation and recommend some corrective actions, if required to ensure that all operations and interventions are being followed and comply with guidelines mentioned above. An E&S team from CEGIS recently visited each sub-project site from 12 February to 22 February 2023 to gather information intrinsically considering the bio-physical and other related parameters through a rigorous walk-in visit, FGD, and KII. During the visit, we found the assigned Implementing Entities (IEs) are working relentlessly to wrap up the remaining work despite the recent spike in coronavirus cases. Regardless of being a "C" category project, the audit team went through the following issues that may negatively impact the ambient environment and its associated component.

#### *Air Quality*

The project has been designed so that the environmental impact due to the interventions is minimal to zero. The only concern observed is "Dust Storms," as most activities are conducted during the dry season. At most of the sub-project sites, dust masks and water sprinkling methods were adopted to suppress the airborne dissemination of the SPM and other fine particles. Implementing Entities (IEs) of all respective sub-project are trying their best to implement the mitigation measures for dust control. Respective IEs have provided adequate PPE to their laborers, but some workers at Dimla Union, Nilphamari, were seen as reluctant to use the dust mask. The audit team has advised the IEs to strictly ensure the mask and other dust control measures.





**Figure 5.1: Water Sprinkling to Arrest Dust**

### *Water Quality*

Ensuring drinking water availability and quality was a big challenge for the IEs for the char dwellers. As a part of the project activities and to protect against water-borne diseases, IEs have already installed the allocated deep tube wells at most of the cluster, and some will be installed in the next couple of months. IEs were instructed and obliged to test the Iron (Fe) and Arsenic (As) quantity for each tube well before declaration as safe for drinking. Through KII and examining the water sample test report, the audit team confirmed that the allowable limit of the selected parameters is being complied with the target limit at most of the unions. At some unions, the team found a high concentration of Fe, and advised the respective IE to take the necessary steps to mitigate the impact. Through FGD at Kutir-char, Rowmari union, Kurigram, the audit team has been informed that the water from one installed tube well at Kutirchar village was odorous and muddy. The respective IE is aware of it and is taking care of this issue.

All the installed latrine has their soak-well behind them, resulting in no groundwater contamination. Waste and wastewater from households and livestock are drained by the earthen channel and deposited into a demarcated place and ring. Construction waste and wastewater were not a concern for surface water contamination as there is no water body close to the sub-project site.



**Figure 5.2: Soak Well Behind the Latrine**



**Figure 5.3: Ring for Household Waste Water**

### Noise

Most of the activities are manual and labor-oriented, which doesn't cause any sound pollution. Sometimes mini trucks were used as the soil source was far from the project site, but that didn't cause any hazardous noise.

### Waste Management

All construction waste was dumped at a demarcated place, and the housekeeping at the project site was observed to be in satisfactory condition. As the plinth is away from the water body, surface water deterioration due to construction waste is negligible. Household waste and livestock litter are deposited in a demarcated pit within the plinth for composting, and the fertilizer is used for agriculture and homestead gardening. FGD and KII revealed that the IEs provided adequate training regarding the composting process to the beneficiaries.



**Figure 5.4: Pit Composting (top)**

Adopting vermicomposting is an addition to managing livestock waste within the plinth, and this practice has already been started at south Dighal-kandi Char, Gaibandha. Beneficiaries are receiving adequate training from the IEs on vermicomposting.



**Figure 5.5: Vermi-Composting practice at Saghata, Gaibandha**



### Topsoil Management

It is observed that plenty of soil is required to raise the plinth and its related activities, which is a challenge for the beneficiaries to manage and deploy at the project site. However, considering the PKSF and GCF's guidelines, beneficiaries, with the help of IEs, have sourced the sand and alluvial earth/soil from the fallow land, dry pond, borrow pits, and other adjacent rivers land where the topsoil had already been lost.

To protect the raised plinth from erosion and silt run-off, beneficiaries received training and guidance from the IEs and took the following measures:

- Turfing the plinth slope with different kinds of grasses;
- Planting plenty of erosion endured medicinal trees, banana trees, fruit trees, and homestead gardening;
- Installed a pipe to drain rain and flood water quickly to avoid erosion and waterlogging;



**Figure 5.6: Grass Turfing**



**Figure 5.7: Banana Trees Plantation**

### 5.2.2 ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

At the homestead area of each project site, a variety of natural fruit tree seedlings, saplings, and trees, as well as medicinal plants, have been visible (Annex1). However, certain non-native tree species that may have been introduced accidentally were discovered in the plinth-raising areas of the Fulchari, Saghata, Chilmari, Char Rajibpur, and Dimla upazilas. Even though all IEs advised people to plant a native fruiting tree or medicinal tree species, many beneficiaries chose to plant these quickly growing non-native trees in their homestead for financial gain. Nonetheless, measures are being taken to limit their development and stop the spread of any alien species. Maximum beneficiaries suggested that invading alien species, like eucalyptus, have had a negative impact since they are water-intensive and reduce the water availability for other species. Also, it was observed on a field visit that alien tree plantations have a less diversified fauna, especially birds, than those consisting of native species. During plinth raising in the upazilas of Niphamari and Jamalpur, a few tiny native and non-native tree species were removed, but no significant deforestation or challenges with land removal were observed. But, following the advice of Implementing Entities, they planted 5 trees in the plinth-raising regions to compensate for the one tree that was cut down. Measures were taken to protect the existing important native tree species in the area during and after the construction phase of plinth raising. This included digging and removing sandy soil around the tree trunk to the original soil level to allow free air and gas exchange in the root zone. Compost fertilizers are also used in the root zone of the trees to enrich soil nutrients for better growth and development.



**Figure 5.8: Plantation of Betel nut palm associated with Mango and guava in the homesteads**



**Figure 5.9: Non-native tree species plantation on the plinth raising slope in Char Rajibpur**



**Figure 5.10: Mitigation measures to protect the tree from sand filling**



**Figure 5.11: Installation of Bermuda grass on the slope of the plinth raising**

### *Ecosystem Services*

Beneficiaries claimed that, before the plinth elevating, the affected areas were frequently submerged by floods, preventing the growth of any flora and causing trees to perish due to flooding. However, as a result of plinth raising and mitigating measures, accepting Implementing Entities' (IEs') recommendations, trees and vegetation will no longer be harmed by flooding, boosting their chances of survival and improving the ecology around them. Most importantly, agriculture allows for year-round crop production. Ecosystem services have advanced from their previous state due to enhanced environmental management. Beneficiaries now receive a variety of ecosystem services, including provisioning services like fruits and fodder, regulating services like soil conservation and nutrient enrichment, supporting services like shade, providing habitat for various bird species, and cultural benefits like enhancing the natural beauty of areas where plinths were raised more than 1.5 to 2 years ago. This ecosystem service will gradually increase once the soil is fully stable and nutrient-rich.





**Figure 5.12: Providing provisioning services**



**Figure 5.13: Supporting biodiversity habitat**



**Figure 5.14: Providing fodder**



**Figure 5.15: Providing agriculture support**

Hence, the project activities complied with GCF criteria to safeguard the local flora, fauna, and biodiversity and to create an eco-friendly environment to some extent. The project consistently addressed GCF requirements and improved the living conditions of natural resources in terms of ecosystem services.

### **5.3 Assessment of Social Compliances**

#### **5.3.1 ESS 2: Labor and Working Conditions**

##### *Labor Wage*

It has been found that workers received fair wages for their work as per the project budget. All laborers were treated equally; no complaints were received. In the field, national employment and labor laws were rigorously adhered to, and the working conditions of the laborers, including their hours of work, wages, overtime, compensation, and benefits, were well known.

After speaking with the workers and the beneficiaries of the program, it was discovered that neither group had any complaints regarding the payment of wages to the workers. There was no evidence of a dispute between the workers and their employers. No instance of contention or difficulty was found between the worker and the employer. On-time payments were made to everyone. After a week has passed, at which point payment for the work is made, no one is required to put in more than 8 hours per day.

However, because the work was done in summer, workers began their shifts early in the morning, took a break in the middle of the day to avoid the sun's heat, and resumed their work in the afternoon. During work hours, the laborers have taken shelter under the trees since this plinth was raised by demolishing the earlier house.

No accidents or injuries were found in raising plinths and rebuilding resilient houses on the raised plinths. Nevertheless, in a few locations, there were limited harmful activities during the work, but first aid personnel quickly dealt with them.



**Figure 5.16: Laborers are working using PPE in Saghata, Gaibandha**



**Figure 5.17: First Aid Box in the project site in Malendoho, Jamalpr**

### *Health and Safety*

It should be brought to your attention that there have not been any reports of serious injuries or problems with slipping and falling. At each work site, there was a first-aid kit for primary emergency medical assistance, and the IEs were in contact with the community clinics in the surrounding area in case of emergencies. Water was accessible at the construction site because it was located in a rural area close to tube wells, and Implementing Entities (IEs) supplied the laborers with saline. Each IEs responsible for the implementation have been provided with masks, gloves, and gumboots to protect the workers. Before the beginning of the project's activities, instruction on personal protective equipment (PPE) and its proper use is provided to all of the workers. No single area lacked a sufficient supply of personal protective equipment. Although everyone uses PPE at the work site and is aware of the need to use it, it is not up to the mark as they are not habituated to it.



এক্সপ্লোজিভ সনিউনিটি গ্রাইনোট চেকিং প্রকল্প (ইপিএসইপি-গ্রাউন্ড)

সহকারী পরিচালক : সোনারগাঁও জেলা সোনারগাঁও জেলা (এসএসএসএস)  
 কর্মসূচির শিরোনাম : বনভূমি উন্নয়ন  
 প্রকল্পের নাম : ২৬/০৮/২৩/২৩ ইউনিয়নের নাম : মেলান্দোহা উপজেলার নাম : জামালপুর জেলার নাম : জামালপুর

সাক্ষরকারী

ক্রমিক সংখ্যা	কর্মীর (প্রাথমিক) নাম	জাতীয় পরিচয়পত্র নং	কর্মের দিনস			দিন-রাত সংখ্যা	সমাপ্তি তারিখ	চাকর (নং)	স্বাক্ষর
			কর্মের তারিখ	সমাপ্তি তারিখ	মোট দিনস				
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২	আব্দুল হক	১০২৪৭২৩৪	২৬/০৮/২৩	২৬/০৮/২৩	১২	২৬/০৮	১০২৪৭২	আব্দুল হক	
৩	আব্দুল হক	১০২৪৭২৩৪	২৬/০৮/২৩	২৬/০৮/২৩	১২	২৬/০৮	১০২৪৭২	আব্দুল হক	
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Examined  
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Kazi Mufai Haque  
 Project Coordinator  
 ESS/ECCEP-Ilood.  
 ২৬/০৮/২৩

Figure 5.18: A Sample Work Master Roll (in Melandoho, Jamalpur)

During the construction work, the partner organization monitors things like PPE usage and overall management. In addition, the PKSf carried out surprise inspections regularly at various locations. There was not a single instance of sexual harassment was discovered here. In addition, workers were recruited from the local population and beneficiaries to rebuild sturdy houses on raised plinths and raise goats and sheep in the slatted houses. There has been no evidence of child labor, defined as the employment of people under 18 because every worker's national identification card is checked before they are hired. No one is coerced into working there.

### 5.3.2 ESS 4: Community Health, Safety, and Security

It was found that a considerable number of tube wells and latrines had been installed, and they were producing wastewater, which has been well controlled through soak well construction.

However, it is worth mentioning that in Dimla, Saghata, and Sarishabari, overflowing of soak wells has been observed, but no disease has been reported within the community. The partner organizations trained the beneficiaries to dispose of household waste by making a hole in the designated area. Earlier, there were no waste treatment plants. Because of that, it was very challenging to manage the location for dumping waste. However, the community practiced pit composting to manage household waste in the project areas. Besides, the vermicomposting method had started working at Saghata and within a few areas of Jamalpur, Kurigram, and Lalmonirhat districts.



**Figure 5.19: Overflowing of soak wells in Gaibandha**



**Figure 5.20: Open waste disposal in project area**

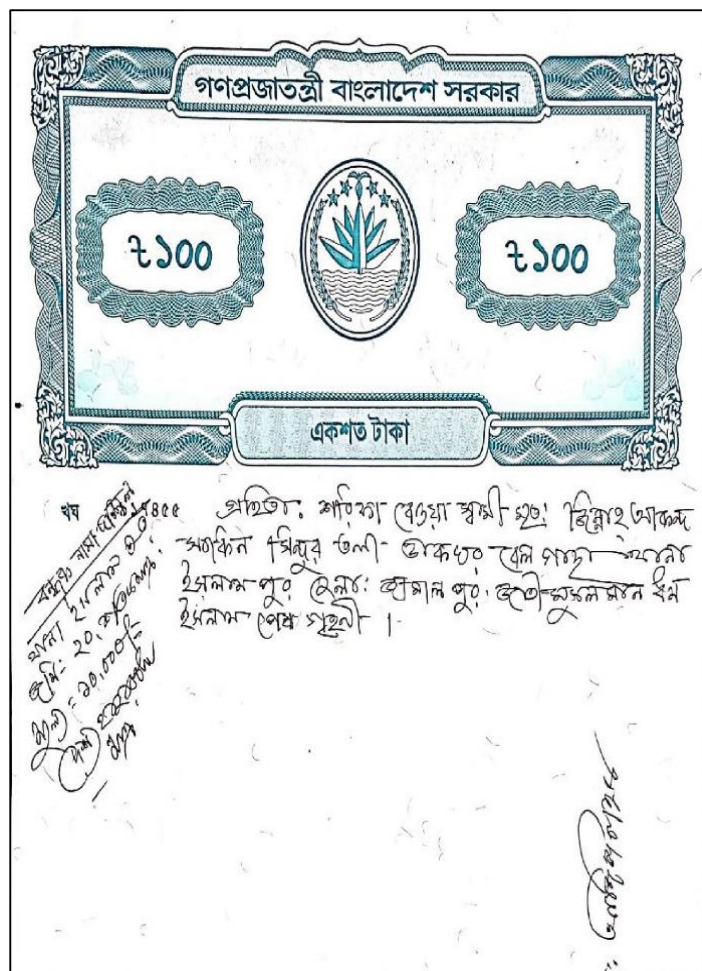
Besides, waste disposal in open places was discovered. Regular sessions were being conducted to make them aware and motivate them towards organic composting to mitigate the issue. Besides, every latrine has a water tank, and everyone knows to wear sandals. As a result, every latrine was found to be clean and hygienic. It was found that the project activities have immensely benefited the local underprivileged people, as the local people have expressed solidarity with the work and are happy because of the actions. As a result, no cases of conflict between local people and beneficiaries or workers were found. There was no incidence of sexual harassment or inappropriate behavior by project people or workers with local people anywhere at the project site. Installation of safe distances between latrines and tube wells as per DPHE guidelines is followed at all project sites, and even the beneficiaries know that. Until now, no ground or surface water contamination risk has been found. Moreover, there are no activities in the project that could cause harm to private or personal property. Thus far, no substantial community health, safety, or security issues have been identified.

### **5.3.3 ESS 5: Land Acquisition and Involuntary Resettlement**

This activity did not involve any land acquisition process, and it did not result in any voluntary or involuntary displacement. Nevertheless, there is a land requisition issue in the Gaibandha, Kurigram, and Jamalpur Char areas. This issue is known in the local dialect as “Jomi Bondhoki<sup>2</sup>.” In most cases, the contracts governing these requisitions run for ten to twenty-five years and are worth a predetermined sum. After this period, a new agreement was needed, but none was forcibly removed from the land before the river created irreparable damage. Earlier, plinths were raised at these project sites. The study reviewed these contract documents closely and found no contract with a term shorter than ten years.

<sup>2</sup> A land mortgage is a legal contract that allows to use of land for a specified period of time.





**Figure 5.21: A sample of the Land Agreement**

Conversations with locals, members of the Grievance Redress Committee, and the Upazila Nirbahi Officer understood that there was no land acquisition, resettlement, or relocation issue anywhere. This was confirmed by the fact that there was a complete absence of any such problems. Consequently, related compensation or complaint was not found.

#### **5.3.4 ESS 7: Ethnic Minority**

No ethnic community was found anywhere in the project area. No ethnic community has been affected by this project activity.

#### **5.3.5 ESS 8: Cultural Heritage**

No project activities have been found where there is a cultural heritage site. Besides, no cultural heritage was found to be damaged due to project activities.

#### **5.3.6 ESS 9: Stakeholder Engagement and Information Disclosure**

##### *Grievance Redress Mechanism*

It was observed that there was a grievance redress committee comprising 3 to 7 members. The local union parishad chairman, union parishad member, project coordinator, teacher, and local elite parson were nominated as committee members. Five (5) member committees were observed in most of the project area.



beneficiaries can submit their written complaints. However, in most cases, verbal complaints have been made, usually taking 7 to 15 days to settle. However, when all the committee members take the complaints seriously, in most cases, the complaints are resolved within 2–7 days.

#### 5.4 Environmental & Social Compliance Matrix

Through the assessment of the study, it was found that all the ESS complied, whereas only a few ESS partially complied. However, measures have been taken for those who partially adhered to ESS. The details are shown in the matrix table:

**Table 5.1: Assessment Matrix of ESS and Related Issues**

Environmental and Social Safeguards		Complied	Not Complied	Partially Complied
ESS 1:	Assessment and Management of Environmental and Social Risks and Impacts			
Related Issues				
1	The project categorization and based on up-to-date and authentic information			
2	PKSF collects and is aware of the environmental and social risks of the project			
3	PKSF review and manage the on-the-ground risks			
4	PKSF has a separate and active unit to deal with environmental and social risks			
5	Aware, informed, and received training on ESS and management of risks			
ESS 2:	Labor and Working Conditions			
Related Issues				
1	Equal opportunity to work (indiscrimination of engagement in work, gender, ethnicity, and other criteria)			
2	Child labor (under 18 years old)			
3	The conflict between employers and employees/workers (management-related issues)			
4	Use of Personal Protective Equipment (PPEs)			
5	Forceful labor engagement			
6	Workers' awareness of their payment, benefits, overtime pay, and work hours and terms & conditions			
7	Rest area or a labor shed, including facilities			
8	Incidence of injury of laborers			
9	Water supply facility at the place of employment			
10	Emergency health services and medical equipment			
11	Sufficiency of PPEs			
12	PPE using training and rehearsal for laborers			
13	On-the-spot checking arrangement of the use of PPE by IEs/AEs			
14	Incidence of sexual harassment/gender-based violence in the workplace (in project activities)			

Environmental and Social Safeguards		Complied	Not Complied	Partially Complied
<b>ESS 3:</b>	<b>Resource Efficiency and Pollution Prevention</b>			
<i>Related Issues</i>				
1	Prevention of air pollution (project activities)			
2	Prevention of water pollution (project activities)			
3	Do not emit GHG through project activities			
4	No wastewater/liquid waste will be generated for project activities			
5	Interventions will generate no hazardous waste			
6	No land use pattern will be Changed for interventions			
7	No soil degradation or soil pollution will be occurred by project activities			
8	Utilize natural resources, including water and energy,			
<b>ESS 4:</b>	<b>Community Health, Safety, and Security</b>			
<i>Related Issues</i>				
1	No environmental pollution will be occurred by the project activities that affect community health and safety			
2	No incidence of conflicts between project people/workers and community people will have occurred through project activities			
3	Is there any sexual harassment or socially inappropriate incidents between project people/workers and community people?			
<b>ESS 5:</b>	<b>Land Acquisition and Involuntary Resettlement</b>			
<i>Related Issues</i>				
1	Land acquisition and requisition involvement of the project			
2	Forced or voluntary displacement issues			
3	No issue of compensation in case of acquisition of land			
4	Properly payment of compensation			
5	No complaint related to compensation and acquisition will arise			
6	Relocation or resettlement issue			
7	No complaint regarding relocation/resettlement will arise			
<b>ESS 6:</b>	<b>Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>			
<i>Related Issues</i>				
1	No activities likely introducing non-native alien species of flora and fauna affecting the biodiversity of the area			
2	No activities affect ecosystem services, including the production of living natural resources			
<b>ESS 7:</b>	<b>Ethnic Minority</b>			
<i>Related Issues</i>				
1	Ethnic people will not be affected by any project activity			

Environmental and Social Safeguards		Complied	Not Complied	Partially Complied
<b>ESS 8:</b>	<b>Cultural Heritage</b>			
<i>Related Issues</i>				
1	No project activities affect the existing cultural heritage			
<b>ESS 9:</b>	<b>Financial Intermediaries</b>			
<b>ESS 10:</b>	<b>Stakeholder Engagement and Information Disclosure</b>			
<i>Related Issues</i>				
1	Effective GRM			
2	Regular complaints received and maintained duly registered			
3	All beneficiaries will know about project activities and GRM			
4	Continuous interaction with local people and project people			

### 5.5 Assessment of Environmental and Social Action Plan (ESAP)

The Environmental and Social Action Plan (ESAP) is a tool used by PKSF to ensure that any outstanding environmental and social issues are being considered while implementing the project interventions to comply with the national law, PKSF, and GCF guidelines. The audit team reviewed those issues and observed whether the IEs followed the actions to minimize the impact on the natural environment.

**Loss of Agricultural Land:** Field observation revealed no discernible loss of agricultural land in any of the project locations. However, some areas aside from agricultural land were used in Dimla, Fulchhari, and Melandaha upazila as there was no potential source of land available for plinth raising. Nevertheless, the project's activities have no impact on the fragmentation and destruction of wetland and forest habitats, soil erosion, water pollution, or wildlife disturbance.

**Increase in Fugitive Dust Level:** Through the FGD, KII, and rigorous transect walking at each sub-project site, no major air pollution source has been detected due to the project intervention. The dust storm is the only major air pollutant source as most plinth-raising activities are conducted in the dry season when flying dust is a usual scenario in the Char area. Most of the IEs have taken appropriate and strict actions to minimize the dust by using water sprinkling methods and ensuring the dust mask used by the laborers during the project implementation. But at Dimla union, Nilphamari it was observed that the workers were reluctant to use the dust mask as they were unfamiliar with it during work.

**Small injuries to the Worker:** It is found that during the Plinth raise or earthwork, everyone was used to using the PPEs such as hand gloves, dust masks, helmets, etc. However, small injuries during work have been mitigated with the assistance of the primary health care service. The first aid box has been noticed on each project site. In addition, the local community clinic has been in contact if a major accident occurs. The first aid box has been seen on each project site. In addition, the local community clinic has been in contact if a major accident occurs. Risk has reduced a lot as PPE and Primary Health Service confirmed on every project site. A slight impact was noticed due to the appropriate mitigation measure taken and identify the risk.

**Contamination of Groundwater, particularly Tube Well Water (through Toilet):** All the installed latrine and tube wells have their soak to arrest the germs leaving the water discharged into the ground. The distance between latrine and tub wells has maintained a 10-meter distance, ensuring groundwater deterioration from latrine waste. No water body was observed near the raised plinth, which confirmed the likelihood of surface water contamination is negligible.



**Groundwater level may be lowered:** The likelihood of groundwater depletion will be low as the IEs install the tube wells keeping the minimum distance to avoid groundwater extraction from the same aquifer. The project locations are beside the river, so groundwater gets recharged through river water.

**Viral and Bacterial Diseases may transmit from slatted houses of Goats/Sheep:** The likelihood of bacterial and viral illness transmission was shown to be less significant. The hazard is minimized by putting the committed steps into action. Beneficiaries received training at each project location on how to clean a goat or sheep shed, dispose of it, and dispose of the animal's waste safely nearby. All project sites had compost/slurry management in place. However, only the Saghata upazila had vermicomposting practice on a pilot basis, and the other upazilas were supposed to be starting soon.

## 5.6 Matrix of Environmental and Social Action Plan (ESAP)

Through the assessment of the study, it is found that all the ESAP was mitigated. The details are shown in the matrix table:

**Table 5.2: Assessment Matrix of Environmental and Social Action Plan (ESAP)**

Summary of risks	Mitigation measures	Risk significance	Audit Findings		
			Mitigated	Not Mitigated	Partially Mitigated
Loss of agricultural land	The location should be fixed in such a way that no loss of agricultural land, forest, wetlands	Slight			
	Alternative locations can be considered				
Increase in fugitive dust level	If works are conducted in the dry season, wet the exposed areas and stockpiles of earth material, mainly to minimize windborne particles and fugitive dust.	Slight			
	For worker health and safety, all workers should be supplied with dust masks.				
Small injuries to the worker	Ensure the use of hand gloves	Slight			
	Ensure the use of a helmet				
	Ensure primary health care services				
Contamination of groundwater, particularly tube well water (through the toilet)	The safety tank will be constructed with soak (sand and coarse layers at the bottom) so that the germs are soaked and only clean water would mix with groundwater	Slight			
	Tube wells will be set up at least 30 ft., distant from the safety tank.				
Groundwater levels may be lowered	The precipitation and fluvial process of the country usually facilitate the natural recharge of groundwater, particularly for hand tube wells. In addition, the project will construct a soak well to preserve the wastewater, which will be automatically recharged later.	Slight			

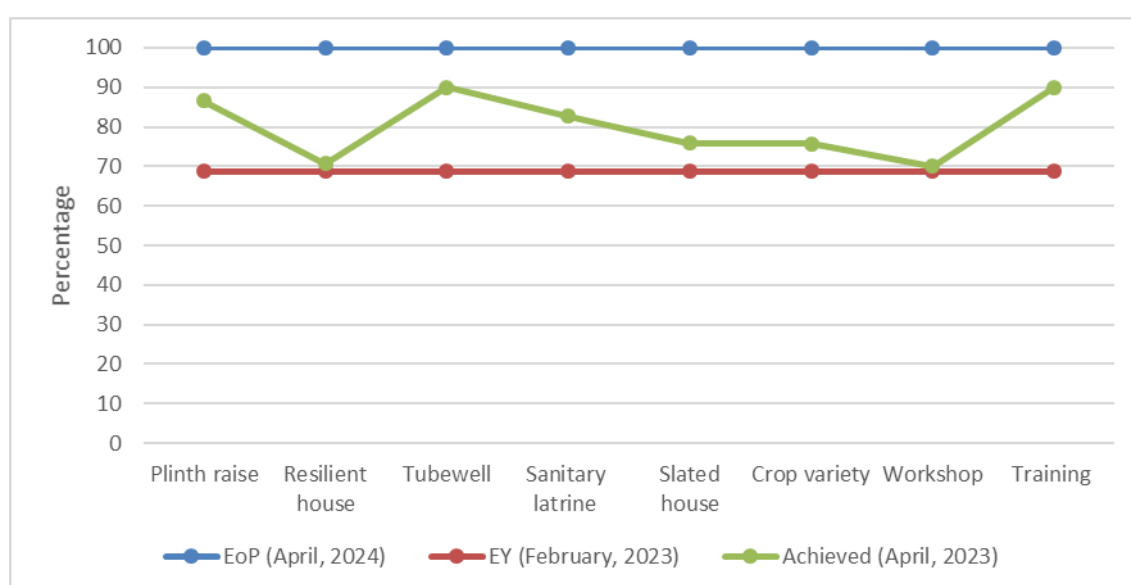
Summary of risks	Mitigation measures	Risk significance	Audit Findings		
			Mitigated	Not Mitigated	Partially Mitigated
Viral and bacterial diseases may transmit from slatted houses of goat/sheep	Training to beneficiaries on cleaning of goat/sheep shed	Slight			
	Training to beneficiaries on disposal and dumping of goat/sheep fecal matter to nearby safe dumping/collection corners				
	Aware of controlling odor, insects, and mosquito breeding around the goat/sheep-rearing farm				
	Training beneficiaries on making compost/slurry management				

## 5.7 Evaluation of Effectiveness of ECCCP-Flood Project

Following the study's objective, the ECCCP-Flood project is evaluated on implementation status and compliance status. Here, 'implementation status' refers to the coverages and timelines of project activities according to their set targets. On the other hand, 'compliance status' relates to compliance and non-compliance issues concerning Environmental and Social Safeguard (ESSs) and Environmental and Social Action Plans (ESAP). The evaluation results are presented below:

### 5.7.1 Implementation Status

The project was started on 27 April 2020 and to be ended on 26 April 2024. The project involves eight activities, of which 6 are for development work, one for community engagement (workshop), and one for capacity building (training). Drawing on the set targets, around 68.75 percent of all activities should be completed in the evaluated year (February 2023). According to the assessment, all activities achieved the target, many of which are way beyond the targets (**Figure 5.24**).



Legend: EoP= End of Project, EY= Evaluated Year

**Figure 5.24: Implementation Status by Activities and Timelines**

The following table (Table 5.3) shows the detailed evaluation results by targets and achievements. Out of eight activities, five exceed than targets, and three, although they exceed, are close to the targets. The overall result is 3.63 out of 3, which shows the project implementation is ‘on track’ and the achievement is ‘more than satisfactory.’

**Table 5.3: Detail Evaluation Matrix of Implementation Status**

Sl.	Activities	Unit	Base Year: 27 April 2020	End of Project (EoP) Target: 26 April 2024	Evaluated Year: February 2023				
					Target Achieved	Target in % (expected)	Achievement in %	Implementation Status	Score
1	Cluster-based homestead plinth raise	HHS	0	10,000	8,652	68.75	86.5	Over Achieved	4
2	Reconstruction of resilient houses on raised plinths	HHs	0	10,000	7069	68.75	70.7	Achieved	3
3	Installation of tube-wells	Number	0	500	450	68.75	90.0	Over Achieved	4
4	Construction of climate-resilient sanitary latrines	Number	0	2810	2325	68.75	82.7	Over Achieved	4
5	Goat/sheep rearing in the slatted houses	Number	0	10,000	7596	68.75	76.0	Over Achieved	4
6	Flood-tolerant crop cultivation	Number	0	10,000	7567	68.75	75.7	Achieved	3
7	Organize workshops and seminars	Number	0	20	14	68.75	70.0	Achieved	3
8	Organize training for IEs staff	Number	0	10	9	68.75	90.0	Over Achieved	4
Overall Result								Exceed	3.63

Legend:	Definition	Score
	No achievement	0
	Underachieved	1
	Close to achieve	2
	Achieved	3
	Over Achieved	4



### 5.7.2 Compliance Status

According to the ESS and ESAP compliance, the overall score 1.97 out of 2. Here, the evaluation was carried out following three scale/scores: non-compliance gets '0', partially compliance (including the percentage of (non)compliance) gets '1 to 1.99', and complied gets '2'. Thus, although ESS6 is partially complied, it scores 1.75 that refers to 'close to the compliance', in which this can be fully complied only addressing a small issue (for detail please see section 5.22 figure 5.9 and table 5.1).

**Table 5.4: Effectiveness of ESS by Scoring**

Overall	1.95	Complied with Remarks*
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	2	Complied
ESS2: Labor and Working Conditions	2	Complied
ESS3: Resource Efficiency and Pollution Prevention and Management	2	Complied
ESS4: Community Health and Safety	2	Complied
ESS5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	2	Complied
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	1.75	Partially Complied
ESS7: Indigenous Peoples	2	Complied
ESS8: Cultural Heritage	2	Complied
ESS9: Financial Intermediaries	2	Complied
ESS10: Stakeholder Engagement and Information Disclosure	1.75	Partially Complied

On the other hand, ESAP scores 2 out of 2, which means that all mitigation measures addressed and committed at the beginning of the project were implemented.

**Table 5.5: Effectiveness of ESAP by Scoring**

Overall	2	Mitigated*
Loss of agricultural land	2	Mitigated*
Increase in fugitive dust level	2	Mitigated
Small injuries to the worker	2	Mitigated
Contamination of groundwater, particularly tube well water (through the toilet)	2	Mitigated
Groundwater levels may be lowered	2	Mitigated
Viral and bacterial diseases may transmit from slatted houses of goat/sheep	2	Mitigated

## 6. Recommendations

A list of recommendations is given below:

- Laborers should be provided with laced shoes instead of gumboots to facilitate construction work smoothly and reduce the chance of slips and accidents. During the field visit, it was observed that the workers felt uncomfortable using the gumboots provided as PPE. While working using gumboots, it was found that most laborers do not get balance while walking. Many times, there is a chance of an accident after slipping the foot;
- It is found that all the laborers are working proper PPE at the workplace. Most of the workers are now habituated to using PPE as they have been given practical training on the use of PPE. However, providing laced shoes instead of gumboots among the PPEs would have improved their walking balance;
- It has been observed in many project sites that beneficiaries have little understanding of GRM committees. The number of sessions and a signboard detailing the name, address, and mobile number of the GRM committee should be provided at each project site;
- A small disclosure meeting should be organized before starting the activities at each project site to ensure the local people's participation so that the local people are aware of the project and do not have complaints about the project activities;
- Adequate training on Vermicomposting practice should be provided and make this method popular among the beneficiaries;
- Availability of earth-worm should be ensured so that beneficiaries can get them at an affordable price;
- The project should incorporate species suitability management techniques to minimize the impact of run-off and soil erosion. This could include the use of small-leaf plants instead of broad-leaf plants at the early stage of plinth raising as large raindrops from broad-leaf plants can erode soil;
- To safeguard biodiversity and advance environmental sustainability, there is a growing need for education and more awareness initiatives;

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## **Appendices**

## Appendix 1: Commonly Observed Species in all the Project Sites

Local Name	Common Name	Scientific Name	Ecosystem Services
Aam	Mango	<i>Mangifera indica</i>	Fruits, timber, fodder, soil conservation and shade
Peyara	Guava	<i>Psidium guajava</i>	Fruits, medicine, shade and firewood, food and shelter to birds and squirrels.
Kanthal	Jack fruit	<i>Artocarpus heterophyllus</i>	Food, fuel, timber and medicinal extracts, Create a regenerative ecosystem, Leaves, culled fruits, and fruit peelings are valuable for livestock feeding, Creates shade and habitat for nesting birds
Supari	Betel nut Palm	<i>Areca catechu</i>	Row of trees provides aesthetic beauty, fruit powder can be used as medicinal purposes, fruits
Sopeda	Mudapple	<i>Manilkara zapota</i>	Timber, fruits, latex, Important food item for birds.
Papey	Papaw	<i>Carica papaya</i>	Mainly fruits and medicinal purposes, Safe food for birds
Narikel	Coconut	<i>Cocos nucifera</i>	Food, fuel, cosmetics, folk medicine and building materials, Bat and birds habitat.
Neem	Nim tree	<i>Azadirachta indica</i>	Natural medicine, pesticide, fertilizer, shade, furniture and fuelwood
Bel	Stone Apple	<i>Aegle marmelos</i>	Fruit, juice, ornamental and medicinal purpose, fodder and fuel
Tentul	Tamarind	<i>Tamarindus indica</i>	Fruits, conserve soil, enhance fertility, nitrogen fixation, charcoal production and medicinal purposes
Jambura	Pomelo	<i>Citrus grandis</i>	Fruits, carbon sequestration and medicinal purposes.
Kola	Banana	<i>Musa spp</i>	Holding soil, water conservation and nutrient cycling, enrich nutrients of bare soil, Fruits, fodder for domestic animals
Bakul	Spanish cherry	<i>Mimusops elengi</i>	Medicine, ornamental tree provide aesthetic beauty, shelter for birds, durable wood can be used for furniture
Shimul	Red silk-cotton	<i>Bombax ceiba</i>	Aesthetic beauty, flowering trees were frequently visited by birds for feeding and other purposes, carbon sequestration, medicine, provide food, shelter, roosting, and breeding to birds, squirrels and bees.
Koroi	Siris	<i>Albizia procera</i>	Timber, carbon sequester and store greenhouse gasses, filter air pollutants, Provide shade and wind shield, aesthetic beauty
Sojne	Drumstick Plant	<i>Moringa oleifera</i>	Water purification, human consumption, medicine, fuel wood, dye, soil and water conservation, livestock forage and green manure
Jam	Black plum	<i>Syzygium cumini</i>	Medicinal uses, edible fruits, fodder, strong heavy timber and good fuelwood, Food, Shade and shelter for bird species, carbon sequestration
Boroi	Jujube	<i>Ziziphus mauritiana</i>	Reduce soil erosion, fodder, fruits, medicine

Local Name	Common Name	Scientific Name	Ecosystem Services
Bash	Bamboo	<i>Bambusa vulgaris</i>	landscape restoration, prevention of soil and sediment loss, food supply, domestic and industrial raw materials, and carbon sequestration
Gamar	white teak	<i>Gmelina arborea</i>	Timber, soil improvement, shelter for birds, shade
Komola Lebu	Orange or sweet lime	<i>Citrus limetta</i>	Fruits, carbon sequestration, Medicine.
Lebu	Lemon	<i>Citrus limon</i>	Fruits, carbon sequestration, Medicine.
Kalmi shakh	Water Spainach	<i>Ipomoea aquatica</i>	Food and medicine.
Durba gash	Bermuda grass	<i>Cynodon dactylon</i>	Withstands heat and drought and grows well in poor soil, highly tolerant to drought and heavy grazing, stable soil.
Lotkon	Burmese grape	<i>Baccaurea sapida</i>	Nutrient recycling and soil formation, timber and provision of wild fruit
Kodom	burlflower tree	<i>Neolamarckia cadamba</i>	Ornamental plant, timber, Medicine
Eucalyptus	Eucalyptus	<i>Eucalyptus spp.</i>	Provide timber, fuel and control pollution but significantly reduced the diversity of native flora and fauna species, inhibit other plants from growing under them due to naturally-occurring chemicals, depleting groundwater
Akashmoni	Acacia	<i>Acacia auriculiformis</i>	Provide timber and fuel wood within short rotation but strong allelopathic effects that limit tree-crop interactions, Reduce soil fertility
Amra	Hog plum	<i>Spondias pinnata</i>	Fruits, fuel wood, medicine and shelter for fauna
Lychee	Lychee	<i>Litchi chinensis</i>	Release oxygen, trap dust and purify the living environment, Birds, lizards, civets and other animals eat the fruits, timber used for furniture's.

## Appendix 2: Details of FGDs Held

FGD No.	Group name	Venue	Date	Time	No. of participants
01	Project Beneficiaries	Village: Char khaoroa Union: Mugulhat, Upazila: Lalmanirhat Sadar, District: Lalmanirhat	13.02.2023	11:00 am	12
02	Project Beneficiaries	Village: Rajpur, Union: Rajpur, Upazila: Lalmanirhat Sadar, District: Lalmanirhat	13.02.2023	04:30 pm	12
03	Project Beneficiaries	Village: Feskarchar, Union: Noyarhat, Upazila: Chilmari, District: Kurigram	14.02.2023	12:00 pm	12
04	Project Beneficiaries	Village: Kutirchar, Union: Bandober, Upazila: Raomari, District: Kurigram	14.02.2023	5: 30 pm	12
05	Project Beneficiaries	Village: Adarshapara, Union: Kodalkathi, Upazila: Charrajipur, District: Kurigram	15.02.2023	11:30 am	12
06	Project Beneficiaries	Village: Dohalpara, Union: Khogakhoribari, Upazila: Dimla, District: Nilphamari	16.02.2023	10:15 am	12
07	Project Beneficiaries	Village: Purba Kharibari, Union: Tepakhoribari, Upazila: Dimla, District: Nilphamari	16.02.2023	3:30 pm	12
08	Project Beneficiaries	Village: Char-charmohon, Union: Arendabari, Upazila: Fulchari, District: Gaibandha	17.02.2023	11:30 am	12
09	Project Beneficiaries	Village: Dakkhin Digholkandi, Union: Saghata, Upazila: Saghata, District: Gaibandha	18.02.2023	1:30 pm	12
10	Project Beneficiaries	Village: Malipura, Union: Progoldigha, Upazila: Sarishabari, District: Jamalpur	19.02.2023	11:30 am	12
11	Project Beneficiaries	Village: Nadagari, Union: Balijuri, Upazila: Madarganj District: Jamalpur	20.02.2023	3:30 pm	12
12	Project Beneficiaries	Village: Shindhurtali, Union: Belgacha, Upazila: Islampur, District: Jamalpur	21.02.2023	11:30 am	12
13	Project Beneficiaries	Village: Amirti, Union: Ghosherpara, Upazila: Melandaha, District: Jamalpur	21.02.2023	3:30 pm	12

### Appendix 3: Detail of KIIs Held

KII No.	KII person	Venue	Date	Time	No. of participants
01	Deputy Manager, PKSf (Environment & Climate Change Unit)	PKSF Head Office, Dhaka	28.02.2023	10.00 am	1
02	Programme Officer (Environment & Climate Change) ECCCCP-Flood	PKSF Head Office, Dhaka	28.02.2023	12.00 am	1
03	GRC Member	Village: Char Khaoroa Union: Mugulhat, Upazila: Lalmanirhat Sadar, District: Lalmanirhat	13.02.2023	09:30 am	1
04	Project Coordinator (PC) & member of GRC	Village: Rajpur, Union: Rajpur, Upazila: Lalmanirhat Sadar, District: Lalmanirhat	13.02.2023	03:30 pm	1
05	Project Coordinator (PC) & member of GRC	Village: Feskarchar, Union: Noyarhat, Upazila: Chilmari, District: Kurigram	14.02.2023	01:00 pm	1
06	Project Coordinator (PC) & member of GRC	Village: Kutirchar, Union: Bandober, Upazila: Raomari, District: Kurigram	14.02.2023	7: 30 pm	1
07	Project Coordinator (PC) & member of GRC	Village: Dohalpara, Union: Khogakhoribari, Upazila: Demla, District: Nilphamari	16.02.2023	9:30 am	1
08	Upazila Nirbahi Officer & Assistant commissioner (land)	Upazila: Demla, District: Nilphamari	16.02.2023	12:00 pm	1
09	Project Coordinator (PC) & member of GRC	Purba Kharibari, Union: Tepakhoribari, Upazila: Demla, District: Nilphamari	16.02.2023	3:30 pm	1
10	Panel Chairman of Haldia Union Parishad (President of GRM committee)	Village: Dakkhin Digholkandi, Union: Saghata, Upazila: Saghata, District: Gaibandha	18.02.2023	3:30 pm	1
11	Project Coordinator (PC) & member of GRC	Village: Malipura, Union: Progoldigha, Upazila: Sarishabari, District: Jamalpur	19.02.2023	9:30 am	1
12	Upazila Nirbahi Officer	Upazila: Madarganj, District: Jamalpur	20.02.2023	2:30 pm	1
13	Ward Member- 7 no ward	Village: Shindhurtali, Union: Belgacha, Upazila: Islampur, District: Jamalpur	21.02.2023	02:30 pm	1



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KII No.	KII person	Venue	Date	Time	No. of participants
14	Ward Member- 5 no ward	Village: Amirti, Union: Ghosherpara, Upazila: Melandaha, District: Jamalpur	21.02.2023	4:30 pm	1

## Appendix 4: List of Consulted Participants

### FGD 1

Name	Age	Mobile No
Mrs. Achiya Begum	36	01927114574
Mrs Rojina Khatun	38	01780798295
Mrs Jarina Begum	58	01774580023
Mrs Arjina Begum	25	01740418921
Mrs Najma	27	01976643004
Mrs Jannati	24	01727596077
Mrs Achimon Begum	50	01994160662
Mrs Chayna	35	01944747333
Mrs Sabiron Begum	48	-
Mrs Belchaya Begum	60	-
Mrs Rashida Begum	27	01930289553
Mrs Pinjira	57	-
Mrs Sabina Khatun	32	01724771471
Mrs Asma Begum	30	01716218632
Mrs Jamiran Begum	35	01783094403

### FGD 2

Name	Age	Mobile No
Mrs Rinara Begum	30	01724265869
Mrs Sonali Rani	28	01724328327
Mrs Puja Rani	29	01736278851
Mrs Gita Rani	32	01744679370
Mrs Kajoli Rani	25	01704841281
Mrs Sita Rani	26	01723979757
Mrs Gita Rani	29	01742626879
Mrs Menoti Rani	32	01797986798
Mrs Tithi Rani	26	01796783155
Mrs Alomoti	32	01773466225
Mrs Ferija Begum	26	01759590471
Mrs Golapi Rani	29	01740009687

**FGD 3**

Name	Age	Mobile No
Mrs Sabina Begum	40	-
Mrs Rubi	25	-
Mrs Marjina Begum	40	-
Mrs Sabina	30	-
Mrs Sahida Begum	42	-
Mrs Hasnara	28	-
Mrs Azima	45	-
Mrs Manjuara	35	-
Mrs Rehena Begum	30	-
Mrs Ambia	25	-
Mrs Marjina Begum	30	-
Mrs Rebeka	30	-

**FGD 4**

Name	Age	Mobile No
Mrs Nureja Begum	36	01915961763
Mrs Akhiron	37	01916124334
Mrs Sukhjan	21	01953357347
Mrs Julekha	22	01957843430
Mrs Jahanara	35	01960395081
Mrs Anjana	25	01981705751
Mrs Khadija Begum	27	01971819082
Mrs Salma	26	01921640957
Mrs Shamiran	38	01953427665
Mrs Banesa Begum	33	01997542298
Mrs Marjina Begum	32	01983971172
Mrs Sakhina Begum	51	01921238106

**FGD 5**

Name	Age	Mobile No
Mrs Rupali	28	01962763206
Mrs Shilpi Begum	22	01622360508
Mrs Bilkis Begum	29	01887703722
Mrs Akhi	22	01864060176
Mrs Asma	48	01840376975
Mrs Rina	28	01884662443
Mrs Fatema	30	01930775600
Mrs Mamataj Begum	25	01860806892

Name	Age	Mobile No
Mrs Bilkis	30	01840376975
Mrs Najma	30	01890564943
Mrs Nurjahan Begum	40	01956296947
Mrs Ajeda	26	01829371077
Mrs Rabeya	40	01797893092
Mrs Mayna	30	01840376975

**FGD 6**

Name	Age	Mobile No
Mrs. Jaheda	45	-
Mrs. Mojida	42	-
Mrs. Fatema	40	-
Mrs. Rupali	35	-
Mrs. Farzan	36	-
Mrs. Supia	38	-
Mrs. Hamida	34	-
Mrs. Nazma	27	-
Mrs. Arzina	25	-
Mrs. Anjuara	27	-
Mrs. Jelly Begum	25	-
Mrs. Rashida	29	-

**FGD 7**

Name	Age	Mobile No
Mrs Sriti	25	01321054616
Mrs Sefali Begum	26	01753818186
Mrs Lovely	38	01745698187
Mrs Rashida	38	01301122168
Mrs Sefali	27	01738588165
Mrs Marufa Begum	30	01738586741
Mrs Golapi	21	01742453799
Mrs Chaina Begum	30	01316557408
Mrs Rumana	20	01796011605
Mrs Shahera Begum	30	01740077992
Mrs Yesmin	27	01302133063
Mrs Aleya Begum	35	01762935132

**FGD 8**

Name	Age	Mobile No
Mrs Fatema Begum	25	01707085493
Mrs Anowara Begum	38	01788012106
Mrs Shahinur Begum	40	01763209163
Mrs Shamoly Begum	26	01939084670
Mrs Sabina Begum	25	01313284837
Mrs Fatema Begum	26	01784552015
Mrs Khushida Begum	28	01794638171
Mrs Rabeya Begum	27	01705858937
Mrs Fulmati Begum	33	-
Mrs Sabina	37	01907819018
Mrs Monowara Begum	38	01759667060
Mrs Shonakhaturun	40	-

**FGD 09**

Name	Age	Mobile No
Mrs Mazeda Begum	36	-
Mrs Hira	28	-
Mrs Esha Banu	29	-
Mrs Rikta	27	01755318715
Mrs Sona Khatun	34	-
Mrs Abeda	30	01763141438
Mrs Nur Nahar	40	-
Mrs Rowshan Ara	42	-
Mrs Mahmuda	43	-
Mrs Nasima	32	-
Mrs Mina	30	01716786817
Mrs Ojufa	39	-
Mrs Falema	26	01775608557

**FGD 10**

Name	Age	Mobile No
Mrs Happy	30	01991727222
Mrs Salma Akhter	28	01953700486
Mrs Happy	29	01989893907
Mrs Raseda Begum	32	01947290210
Mrs Rotna	25	01960055458
Mrs Najma Begum	26	01946896288
Mrs Kolpona	29	01908901475

Name	Age	Mobile No
Mrs Fatema	32	01308615242
Mrs Akhi	26	01720073882
Mrs Lipi Begum	32	01954611474
Mrs Jomila	26	01949700927
Mrs Sabina	29	01763221227

**FGD 11**

Name	Age	Mobile No
Mrs. Rikta Khanam	24	01907553316
Mrs. Rima Akhter	25	01961354449
Mrs. Farida Begum	47	01981545373
Mrs. Munni Begum	50	01926222090
Mrs. Diler Begum	55	01952940243
Mrs. Shurjo Khatun	30	01923969552
Mrs. Ayesha Begum	29	01926183459
Mrs. Momena Begum	42	01961963699
Mrs. Julekha Begum	30	01984144292
Mrs. Mina Begum	35	01983578910
Mrs. Shabana Begum	40	01950087146
Mrs. Smrity	33	01929326743

**FGD 12**

Name	Age	Mobile No
Mrs Johura	45	01788758876
Mrs Khorsheda	25	01737627217
Mrs Srimoti runia	55	-
Mrs Monoara	54	-
Mrs Ruma	35	01788914691
Mrs Hajera Begum	44	01878170069
Mrs Shahida	43	-
Mrs Zahima	25	01737906522
Mrs Rohima	35	-
Mrs Sukhjan Begum	32	-
Mrs Shahara	22	01947599500
Mrs Anowara	52	01986365427

**FGD 13**

Name	Age	Mobile No
Mrs Rabeya	27	01789437000
Mrs Yasmin	26	01735526375
Mr Milon	24	01729477318
Mrs Kajuli	23	01765069834
Mrs Selina	30	01743830388
Mrs Dilroba Begum	23	01745300512
Mrs Amena Begum	27	01747560026
Mrs Masuda Begum	33	01751842651
Mrs Morshed	24	01798295654
Mrs Mira Begum	23	01710656588
Mrs Laki	30	01627414422
Mrs Kajuli	25	01731612469

**KII Participants List**

KII No.	KII person	Name	Mobile No.
01	Deputy Manager Environment & Climate Change Unit, PKSF	Md. Rabi Uzzaman	01768054110
02	Programme Officer (Environment & Climate Change) ECCCP-Flood	Md. Wahidul Haque	01670349212
03	GRC Member	Md. Rafiqul Islam	01725022917
04	Project Coordinator (PC) & member of GRC	Dr. Shamsur Rahman	01716657121
05	Project Coordinator (PC) & member of GRC	Md. Habibur Rashid	01733168578
06	Project Coordinator (PC) & member of GRC	Md. Harun Ar Rashid	0173747437
07	Union Parishad Member & member of GRC	Md. Nurul Amin	01753326877
08	Upazila Nirbahi Officer & Assistant commissioner (land)	Belayet Hossain	01860635444
09	Project Coordinator (PC) & member of GRC	Dr. Mohammad Shamsur Rahman	01993600738
10	Panel Chairman of Haldia Union Parishad (President of GRM committee)	Md. Masud Rana	01717507221
11	Project Coordinator (PC) & member of GRC	Md. Pogidur Rahman	01738723428
12	Upazila Nirbahi Officer	Upoma Farisa	01709970200
13	GRC Member-	Md. Ismail Hossain	01738723428
14	GRC Member-	Md. Muslim Uddin	-

## Appendix 5: Photo Album



Key Informant Interview with Upazila Nirbahi Officer,  
Dimla Upazila, Niphamari



Key Informant Interview with Upazila Nirbahi Officer,  
Sarishabri Upazila, Jamalpur



Key Informant Interview with Deputy Manager,  
Environment & Climate Change Unite, PKSF



Key Informant Interview with Programme Officer,  
Environment & Climate Change, ECCCP-Flood, PKSF



Focus Group Discussion with beneficiaries at  
Mogolhat, Lalmonirhat Sadar.



Key Informant Interview with GRC member in  
Lalmanirhat Sadar.





Key Informant Interview with Project Coordinator, NAZIR in Lalmanirhat Sadar.



Focus Group Discussion with beneficiaries at Rajpur, Lalmonirhat Sadar.



Focus Group Discussion with beneficiaries at Noyarhat, Chilmari, Kurigram.



Key Informant Interview with Project Coordinator, NDP in Chilmari, Kurigram.



Focus Group Discussion with beneficiaries at Bondober, Rowmari, Kurigram.



Key Informant Interview with Project Coordinator, Padokkhep in Rowmari, Kurigram.





Focus Group Discussion with beneficiaries at Kodalkati, Char Rajibpur, Kurigram.



Key Informant Interview with GRC member, in Char Rajibpur, Kurigram.



Focus Group Discussion with beneficiaries at Khogakhoribari, Dimla, Nilpharami.



Key Informant Interview with Project Coordinator, SHARP in Dimla, Nilpharami.



Focus Group Discussion with beneficiaries at Tepakhoribari, Dimla, Nilpharami.



Key Informant Interview with Project Coordinator, GBK in Dimla, Nilpharami.





Focus Group Discussion with beneficiaries at Shahghata, Gaibandha.



Focus Group Discussion with beneficiaries at Erendabari, Phulchhari, Gaibandha.



Key Informant Interview with Project Coordinator, TMSS in Saghata, Gaibandha.



Key Informant Interview with GRC member, in Saghata, Gaibandha.



Focus Group Discussion with beneficiaries at Islampur, Jamalpur.



Key Informant Interview with GRM member, in Islampur, Jamalpur.





Focus Group Discussion with beneficiaries at Madarganj, Jamalpur.



Focus Group Discussion with beneficiaries at Sarishabri, Jamalpur.



Focus Group Discussion with beneficiaries at Islampur, Jamalpur.



Key Informant Interview with Project Coordinator, in Islampur, Jamalpur.



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