Recharge PAKISTAN

GREEN CLIMATE FUND

WWF

THE Coca-Cola FOUNDATION

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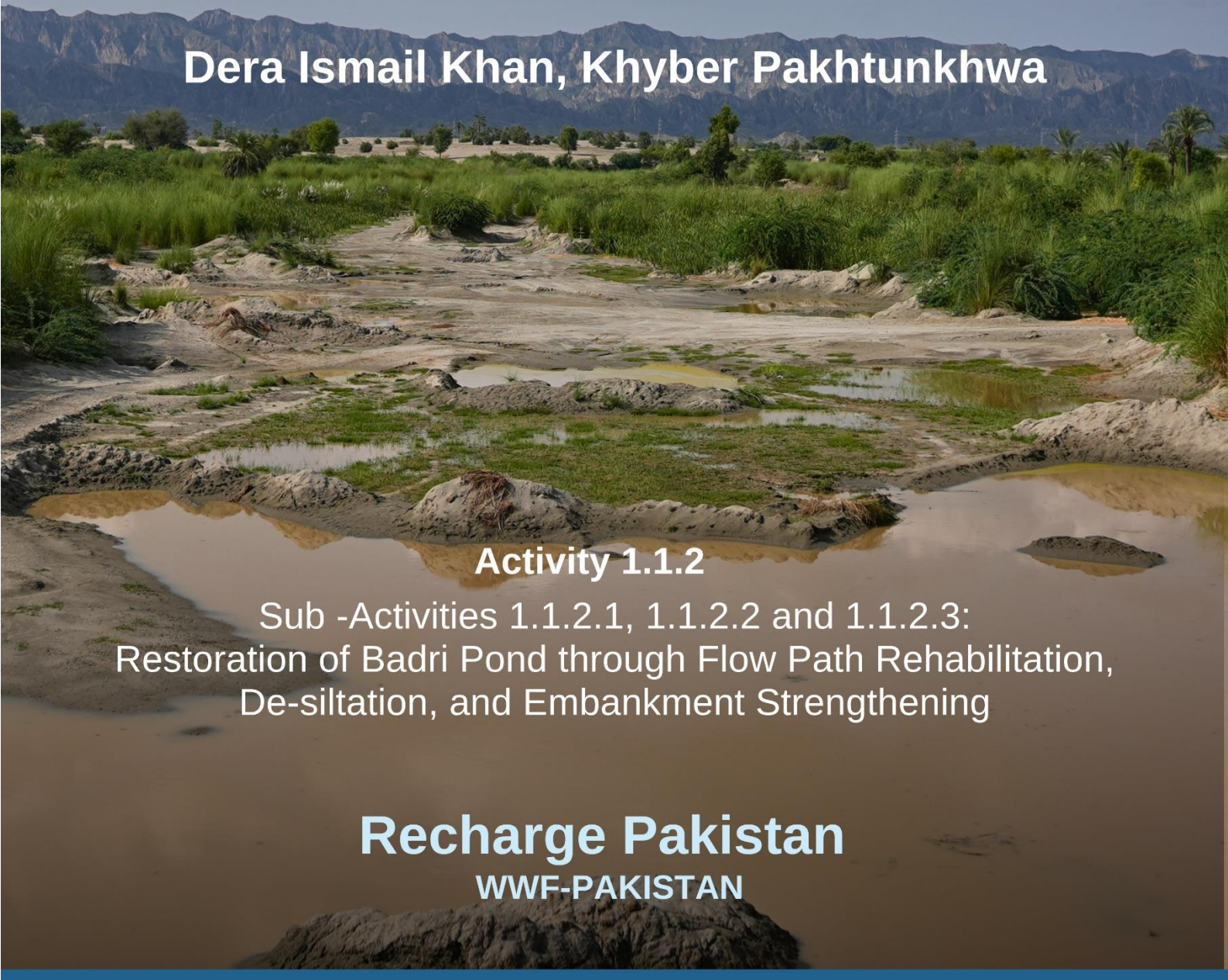
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Dera Ismail Khan, Khyber Pakhtunkhwa



Activity 1.1.2

Sub -Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3:
Restoration of Badri Pond through Flow Path Rehabilitation, De-siltation, and Embankment Strengthening

Recharge Pakistan
WWF-PAKISTAN

FP207 Recharge Pakistan: Building Pakistan's resilience to climate change through Ecosystem-based Adaptation (EbA) and Green Infrastructure for integrated flood risk management

Contents

STRUCTURE OF THE ESMP: Sub-Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3

The Environmental and Social Management Plan (ESMP) for Sub -Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3 is comprehensively structured into ten sections. **Section 1** provides the necessary Introduction and Project Description, outlining the ESMP's rationale, scope, and key project details. **Section 2** establishes the project's compliance foundation by addressing the Legal Framework and Applicable Environmental and Social Safeguard Policies, which include Pakistan's national/provincial laws and the WWF Safeguards Integrated Policies and Procedures (SIPP). **Section 3** identifies the Major Risks covered under the ESMP, such as security, land tenure, and stakeholder engagement risks. **Section 4** documents the Baseline Environmental & Social Data, including details on the degraded ecosystems, the cohesive nature of the tribal communities, and the area's security situation. Dedicated plans for risk mitigation are presented in **Section 5:** outlines the primary Environmental and Social Management Plan, detailing key impacts, mitigation measures, and monitoring parameters for the implementation phase **Section 6:** focuses on Stakeholder Consultation and Engagement, covering the identified parties, the consultation process, and the ongoing engagement strategy, including the Consent process with tribal elders. **Section 7**. ESMP Implementation Mechanism, Monitoring Plan & Reporting **Section 8** Security Management Plan, **Section 9** provides an overview of the structure and access channels for the project's Grievance Redress Mechanism (GRM).

SECTION 1:

1.1 Introduction

This Environmental and Social Management Plan (ESMP) is developed for Sub-Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3 "Rehabilitate degraded Badri Pond through excavation of 415 m of flow paths, De-silting of 1 hectare of pond area & 211 m of embankments strengthening and reinforcement in Badri Village, Ramak watershed to restore the natural hydrology of connected wetlands, under "Recharge Pakistan Project". The project aims to enhance Pakistan's resilience to climate change by employing Ecosystem-based Adaptation (EbA) and green infrastructure for integrated flood and water resources management across D.I. Khan, Ramak, Manchar and Chakar Lehri watersheds. The Recharge Pakistan project is funded by the Green Climate Fund (GCF) with a budget of $72.9 million. The project is classified as a Medium Risk (Category B) project.

1.2 Project Description

The Recharge Pakistan project seeks to address the adverse impacts of climate change in Pakistan, which is ranked as the fifth most climate-vulnerable country. The project's primary objective is to improve floodwater and hill torrent management through EbA and green infrastructure, moving towards integrated water management plans that blend grey and green solutions to maximize community benefits and conserve the Indus Basin.

The project consists of three main components:

Component 1: Proofs of concept for EbA and green infrastructure interventions as efficient and effective solutions for flood and drought risk reduction in Pakistan.

Component 2: Enabling a paradigm shift towards EBA and Green Infrastructure in Pakistan.

Component 3: Enhanced community resilience and adoption of EbA and green infrastructure interventions in Pakistan's Indus Basin.

The project will be implemented across four sites in Pakistan: Manchar, Chakar Lehri, D.I. Khan, and Ramak. WWF-Pakistan is the lead executing entity, hosting the Project Management Unit (PMU) responsible for the project's day-to-day management.

1.3 Rationale for study

This ESMP is specifically designed for Sub-Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3 "Rehabilitate degraded Badri Pond through excavation of 415 m of flow paths, De-silting of 1 hectare of pond area & 211 m of embankments strengthening and reinforcement in Badri Village, Ramak watershed to restore the natural hydrology of connected wetlands. The rationale for this study stems from the need to address the site-specific environmental and social issues identified during the initial screening process. The primary concerns include potential disturbances during excavation, such as impacts on air and water quality from dust and construction debris. There is also a risk of erosion and landslides resulting from the excavation of flow paths. Although the construction of check dams was not included in the original project design, findings from the hydrological and hydraulic assessments highlighted a significant risk of erosion driven by high flood velocities and steep gradients along the flow path. In response to these model outcomes,

the introduction of a series of five check dams was incorporated as a necessary design adaptation.

The study concludes that this intervention is technically justified and effective in addressing key risks, particularly excessive erosion, uncontrolled sediment transport, and the potential reduction in the functional lifespan of Badri Pond. The proposed check dams are designed to regulate flow velocities, stabilize the channel, and trap sediments upstream, thereby enhancing the overall hydraulic performance of the system.

Importantly, the intervention does not result in increased water abstraction nor does it alter existing water use patterns within the community. Instead, it contributes to improved flow management and sediment control, which in turn supports the long-term sustainability, storage efficiency, and operational resilience of the pond.

Socially, the key issue is the potential restriction of community access to the Badri pond during de-silting and embankment construction, as this pond is the sole water source for local villages. This will be further addressed in a related Livelihood Restoration Plan (LRP). Furthermore, there are occupational health and safety concerns for workers, including construction hazards and the prevalence of local diseases like diarrhea and malaria. This ESMP provides a framework to mitigate these anticipated adverse impacts during the implementation of Sub-Activities 1.1.2.1, 1.1.2.2 and 1.1.2.3.

1.4 Scope of ESMP

This ESMP outlines the principles, procedures, and mitigation measures to address the potential environmental and social impacts associated with the excavation of flow paths, desilting and embankment enhancement of Badri Pond in Badri Village, Ramak. It aligns with the laws and regulations of Pakistan, and the Safeguards Integrated Policies and Procedures (SIPP) as mentioned in Annex 6-ESMF & WWF US-SIPP

The scope of this ESMP includes:

1.4.1 Environmental Scope:

- Provision of detailed erosion and land disturbance prevention measures by the contracted engineering firm, including mitigation for flow path excavation, to be annexed with the ESMP.
- Implementation of mitigation measures to prevent soil erosion and landslides during construction activities.
- Preparation and implementation of a construction waste management plan for the safe handling and proper disposal of construction materials and debris.
- Adoption of measures to maintain pond cleanliness during construction, including dust suppression, prohibition of debris disposal into the pond, and identification of safe alternative disposal sites.
- Provision of adequate sanitation and latrine facilities for construction workers to avoid environmental contamination.
- Implementation of worker health and safety measures, including provision of

appropriate personal protective equipment (PPE) and training on site-specific and local hazards.

- Construction of 5 check dams on flow paths and associated mitigation measures.

1.4.2 Social Scope:

- Preparation and implementation of a **Livelihood Restoration Plan (LRP)** to ensure continuous community access to water during construction, acknowledging Badri Pond as the only water source for surrounding villages, and detailing alternative water supply arrangements and mitigation measures for the construction period.
- Documentation within the LRP of community consultations, community input on proposed alternatives, and records of informed consent for agreed mitigation measures.
- Implementation of worker health and safety protocols, including provision of appropriate safety equipment and training on site-specific and local hazards.
- Management of occupational health risks, including communicable diseases, exposure to local fauna, and common regional illnesses such as malaria and diarrhea, particularly for non-local workers.
- Mitigation of construction-related risks to workers and communities, including hazards associated with working near water bodies, handling heavy materials, and exposure to dust and airborne particles
- Conduction of stakeholder consultations prior to and during the construction phase, with planned engagement activities documented.
- Development and implementation of a Security Management Plan to address site-specific security risks during project execution.
- Implementation of Grievance Redress Mechanism (GRM) accessible to workers and affected communities.

1.5 Methodology Applied

The methodology utilized for conducting an environmental and social assessment to prepare for this ESMP is as follows:

- **Desk Review:** A comprehensive review of project documents, including the Funding Proposal-FP, Annex 6-ESMF, and WWF's environmental and social safeguard policies.
- **Environmental & Social Screening of the intervention:** Primary data was gathered through the site visits and implementation of Appendix 1-Safeguard Eligibility & Impact Screening in collaboration with the communities to be engaged in project interventions in Badri village and adjacent communities.
- **Technical and ecological assessment** of the intervention by engineering design consulting firm.
- **Stakeholder Consultations:** Engagement with community members, local government authorities, and other relevant stakeholders to inform them about the project, discuss potential impacts, and gather their input on mitigation measures.
- Prior to the preparation of this ESMP, WWF-Pakistan and the engineering design consulting firm, through the Site Implementation Unit (SIU) DI Khan, conducted

comprehensive stakeholder consultations for the rehabilitation of Badri Pond (including excavation of 415 m flow paths, de-silting of 1 hectare of pond areas, and embankment enhancement of 211 m) in Badri Village, Ramak. Key stakeholders engaged included the Irrigation Department, district/tehsil administration, local CSOs, and community representatives. These consultations facilitated a detailed understanding of the pond's hydrological linkages with surrounding wetlands, informed technical design considerations, and ensured incorporation of institutional feedback into the ESMP.

- Extensive consultations were held with the local community, particularly the 300 households dependent on Badri Pond, including farmers, women, and livestock keepers. Engagements focused on explaining project objectives, discussing potential environmental and social impacts, and incorporating community feedback into mitigation planning. Tribal elders and leaders of the local communities, and Pakhtoon tribes were actively involved to ensure inclusivity, cultural appropriateness, and local ownership.
- The findings of environmental and social screening were reviewed and discussed during these consultations, during which key concerns—such as water flow obstruction, sedimentation, and seasonal flooding—were identified. These inputs were shared with relevant stakeholders, including the Irrigation Department, to refine intervention designs and integrate mitigation measures such as controlled excavation, sediment management, and embankment stabilization within the ESMP.
- Given the customary community-based land tenure, land access for the activity was secured through voluntary Terms of Partnership (ToPs) under an Informed Consent process. Agreements were formalized with Community Based Organizations and community representatives, clearly outlining roles, responsibilities, and benefit-sharing arrangements, while ensuring respect for customary rights and conflict-sensitive implementation.
- The consultation process also established the foundation for continued stakeholder engagement throughout the project lifecycle. A Community-Based Organization (CBO) is formalized in Badri Village to act as the primary local partner. A structured consent process, including consultations with jirga/tribal elders, will be maintained to ensure sustained community consent. The Livelihood Restoration Plan (LRP), particularly for water access, is co-developed with the community to ensure inclusiveness and feasibility, especially for vulnerable groups.
- Regular engagement will be carried out by SIU teams, including Community Mobilization Officers, through periodic meetings with the CBO and other stakeholders to share updates, gather feedback, and address emerging issues. Additionally, WWF-Pakistan's Grievance Redress Mechanism (GRM) will remain operational to address any concerns related to land use, water management, or project impacts, ensuring transparency and accountability in the sustainable restoration of Badri Pond and its associated wetlands.

SECTION 2: LEGAL FRAMEWORK AND APPLICABLE ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES

This activity is governed by the national and provincial laws of Pakistan and the safeguard policies of WWF. Where discrepancies exist, the more stringent standards of the WWF SIPP shall prevail.

2.1 Applicable Legal and Regulatory Framework (Pakistan):

- **Environmental Protection:** The Khyber Pakhtunkhwa (KP) Environmental Protection Act, 2014, provides the primary legal basis for environmental protection, requiring assessments for projects that may cause adverse environmental effects.
- **Water Resources:** Water is a provincial subject, governed by frameworks like the KP Canal and Drainage Act and customary practices ('Rodh Kohi') that manage hill torrents. This ESMP has been designed to ensure alignment with these local water governance systems.
- **Labor and Working Conditions:** The project must adhere to the KP Industrial and Commercial Employment (Standing Orders) Act, 2013, and the KP Occupational Safety and Health Act, 2022, ensuring fair wages, safe working conditions, and prohibiting child labor. Mitigation measures ensure adherence to these labor laws.
- **Land and Community Rights:** While no private land acquisition is planned, any temporary use of communal land ('Shamillat') must respect customary tenure and community rights.

2.2 Applicable Environmental & Social Standards (WWF SIPP):

The screening for this activity has triggered the following WWF standards:

- **Standard on Protection of Natural Habitats:** Triggered by the excavation of a natural channel and its potential to cause erosion, alter local hydrology, and impact the connected Badri Pond wetland ecosystem.
- **Standard on Restriction of Access and Resettlement:** Triggered because the excavation work may temporarily restrict the community's access to the Badri Pond, which is their only source of water for domestic and agricultural use. This requires a Livelihood Restoration Plan (LRP).
- **Standard on Community Health, Safety, and Security:** Triggered by the inherent risks of construction (excavation, use of heavy materials), potential for worker exposure to local diseases (malaria), and general security concerns in the D.I. Khan region.
- **Standard on Grievance Redress Mechanism:** The Grievance Redress Mechanism (GRM) is fully functional and socialized with current stakeholders. It will be fully socialized with all new stakeholders, including temporary workers, contractors and laborers.

SECTION 3: MAJOR RISKS COVERED UNDER THIS ESMP

This ESMP addresses the significant environmental, social, and safety risks identified through prior screening for the excavation of flow paths in Badri village.

3.1 Environmental Risks:

- **Erosion and Land Instability:** Excavation on slopes and banks of the Badri intake channel could lead to soil erosion or potential landslides, especially during rainfall events.
- **Operational Phased Risks of Check Dams:** The proposed check dams are themselves mitigation measures designed to regulate flow behavior within the natural flow path, including velocity control, reduction of erosion risk, and management of sediment transport. These structures consist of stone-filled wire crates, intended for temporary sediment retention and reduction of water turbidity. All check dams are planned in a sequential series from toe to top levels to ensure effective flow regulation. Due to their porous nature, no permanent water storage is expected.

  The structures have been designed to safely accommodate peak flood discharge, and the risk of structural failure or breach is minimal. Furthermore, the catchment of Badri Pond is self-contained, and all runoff contributes directly to the pond.
- **Water Quality Degradation:** Runoff from excavated areas and improper disposal of silt and debris could increase turbidity and pollute the Badri Pond, affecting water quality for human and livestock consumption.
- **Air Pollution:** Excavation and movement of materials can generate significant dust, impact local air quality and affecting nearby communities.
- **Improper Waste Disposal:** Excavated silt and debris, if not managed correctly, can pollute the landscape and degrade natural habitats.

  A clear and well-structured Operation & Maintenance Plan will be in place to support the post-construction operation and maintenance of the Badri Pond. The plan will include routine bi-annual inspections (pre- and post-monsoon), embankment maintenance, check dam inspection and repair, spillway clearing and inspection, and periodic spot desilting to ensure the proper functioning and long-term sustainability of the pond.

3.2 Social Risks:

- **Restricted Access to Water:** The primary social risk is the potential blockage or restriction of community access to the Badri Pond during construction. As this is the only water source, any disruption directly threatens the livelihoods and well-being of people of Badri village.
- **Community and Tribal Conflict:** The hiring of outside labor or perceived inequity in project benefits could create new conflicts among local communities.

- **Security Risks:** The D.I. Khan region has a volatile security situation, with a history of terrorist attacks, posing a risk to the safety of the project team and local communities.

3.3 Occupational Health and Safety (OHS) Risks:

1. **Construction Hazards:** Workers face risks from handling (unloading, moving) of heavy materials, working near a body of water, and operating machinery during excavation.
2. **Health Risks:** Workers are at risk of dust inhalation and exposure to local endemic diseases like diarrhea and malaria. Unfamiliar non-local workers could also be at risk from local fauna (e.g., snake or insect bites).
3. **Child Labor:** There is a risk of employing underage individuals if proper age verification procedures are not strictly followed.
4. Exposure to dust, airborne particles, and local fauna hazards.
5. Inadequate PPE or lack of health and safety training.

3.4 Hazard Risks

- Accidents related to heavy material handling or working near water bodies.
- Slips, trips, or falls due to unstable slopes or excavation sites.
- Machinery-related accidents if proper safety measures are not followed.
- Potential chemical or oil spill hazards if hazardous waste is mishandled.

SECTION 4: BASELINE ENVIRONMENTAL & SOCIAL DATA

4.1 Environmental Baseline:

The project site, Badri Pond, is located in the Ramak watershed in Dera Ismail Khan (D.I. Khan) district, which is characterized as a "Hill Torrent" landscape. The region experiences erratic rainfall and is prone to flash floods. The local hydrology is defined by the Badri channel and the connected 2- hectare Badri Pond, which are part of a natural wetland system. Currently, the channel's flow is obstructed by silt, debris, and other blockages, preventing fresh water from reaching the pond and causing localized flooding on agricultural lands. The land around the channel is primarily used for agriculture and grazing.

4.2 Social Baseline:

The beneficiary community is Badri village, consisting of 300 households with an estimated population of 2,100 people. The population of D.I. Khan has a mean age of 22.7 years, with low literacy levels, especially among women (almost 80% are uneducated). The primary livelihood sources are agriculture, livestock, and wage labor. The Badri Pond is the only source of freshwater for agriculture and domestic use for the entire village, making the community critically dependent on it.

SECTION 5: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

This table outlines the key impacts, mitigation measures, and monitoring plan for each phase of Activity 1.1.2, structured under the main categories of the Implementation Plan and Monitoring Plan.

Table 1: Environmental and Social Management Plan

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
Procurement and Design Phase								
Procurement and Design Phase	- Risk of unplanned land disturbance beyond approved design boundaries - Soil erosion and sedimentation risks, particularly during monsoon season - Damage to adjacent land and sensitive areas	**Restricted Work Zones:** - Clearly define and demarcate excavation boundaries in design documents. - Limit all construction activities strictly within approved design areas. - Protect adjacent lands through marking and physical demarcation. **Seasonal Scheduling:**	Provincial Irrigation Department (PID), Engineering Design Consultancy Firm and Contractor.	- Inclusion of demarcated work zones in design drawings - Seasonal work schedule integrated in construction plan - Approved haul - route maps - Vegetation clearance plan approved - Erosion control measures incorporated in BOQs and technical specifications in Tender Documents	- Once during design finalization and prior to tender approval - Once	- Provincial Irrigation Department (PID) Environmental & Social Focal Person - Contractor is responsible to fence the area during the construction period	- Design documents clearly show restricted work boundaries - BOQs include erosion control provisions - Seasonal scheduling reflected in work plan - Vegetation management and restoration plan approved - Compliance with ESMP requirements	The cost is covered under the overall cost allocated for Design & Implementation of these sub-activities.

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
	- Soil compaction and vegetation loss due to uncontrolled machinery movement - Excessive or unnecessary vegetation clearance - Weak accountability in erosion control implementation	- Prioritize pond embankment works before monsoon season to reduce erosion risk. - Integrate seasonal risk considerations into construction planning. **Machinery Movement Control:** - Designate and approve specific haul and access routes in project layout. - Prohibit deviation from approved routes. - Include route compliance requirements in contractor bidding documents.	Provincial Irrigation Department (PID), Engineering Design Consultancy Firm and Contractor. - Approved haul route maps in design - Provincial Irrigation Department (PID), Engineering Design Consultancy Firm and Contractor.	- Seasonal schedule in construction plan - Approved haul routes - Construction scheduling aligned with seasons	Once during design finalization and prior to tender approval Once during design finalization and prior to tender approval	- Provincial Irrigation Department (PID) Environmental & Social Focal Person, PMU and SIU NBS teams - Contractor is responsible to fence the area during the construction period	- Seasonal Plans included - Approved haul routes documented - Contractor obligations defined	The cost is covered under the overall cost allocated for Design & Implementation of these sub-activities.
	-	**Vegetation Clearance Restriction:** - Limit vegetation removal strictly	- Provincial Irrigation Department (PID), Engineering	- Approved vegetation clearance plan - Inclusion of replantation	- Once (during final design approval)	- PID Environmental & Social Focal Person	- Approved vegetation plan - Replantation provisions	The cost is covered under the overall cost allocated for Design & Implementation of

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
		to essential construction areas. - Include site plans showing approved clearance zones. - Provide protective fencing/marking for preserved vegetation. - Ensure - replanting of native vegetation after construction. **Erosion Control Planning:** - Construction of five (05) check dams - Include detailed erosion control measures in technical specifications. - Provide for installation of silt fences, drainage channels, and physical barriers in design	Design Consultancy Firm and Contractor. - Provincial Irrigation Department (PID), Engineering Design Consultancy Firm and Contractor.	plan - Erosion control structures in design (check dams, silt fences, drainage)	- Once (during final design approval)		included - Erosion control measures integrated in design	these sub-activities.

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
		documents.						
Construction Phase								
Site Preparation & Excavation	- **Dust/Air Pollution:** from excavation and vehicle movement. - **Noise Pollution:** from machinery.	- Regular water sprinkling on haul roads and excavation sites. - Ensure all Machinery has functional silencers. - Provide dust masks to all workers and nearby community members if necessary.	- Contractor	- Visual dust monitoring. - Use of PPEs by Workers. - Noise level checks.	- Daily	SIU ESS/M&E - Officer	- No visible dust plumes. - All workers using PPE.	As per tender documents Contractor is responsible for the PPEs items wise specification are attached as **Annex-1)**
	- **Water Quality Degradation:** Silt and debris entering Badri Pond.	- Establish barriers (silt curtains) between the work area and the pond.	- Contractor	- Visual inspection of water quality for water color and impacts of other pollution from construction materials and debris.	- Weekly	SIU ESS/M&E - Officer	- Water quality remains at baseline levels.	**(as per Design BOQ)**
		- Prohibit disposal of any waste into the pond. - Designate a specific containment area for excavated	-	- Visual inspection for debris management.	-		- No construction debris in or near the pond.	Disposal plan attached as **Annex-II**

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
		material away from the water body.						
Plan for Prevention of Land Erosion and Soil Disturbance								
Construction Phase – Excavation, De-silting, Embankment Reinforcement	- Soil erosion and slope instability due to exposure of bare soil	- Mechanical compaction of embankments in controlled layers using local materials - Stone pitching and grass protection on exposed slopes Limiting excavation within approved design boundaries	- Contractor (Provincial Irrigation Department)	- Stability of embankment slopes - Evidence of erosion or slope failure	- Weekly during construction	KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- No visible erosion on slopes - Stable embankments without cracks or collapse	Safety helmets Safety boots Gloves
Construction Phase – Flow Management	- Sediment mobilization and increased turbidity affecting water quality	- Construction of five (05) check dams of variable size using gabion mattresses - Energy dissipation and flow velocity control based on hydrological modeling	- Contractor (Provincial Irrigation Department)	- Sediment accumulation upstream of check dams - Turbidity levels in pond	- Monthly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- Reduced sediment inflow to pond - Acceptable turbidity levels	- High- visibility vests - Gloves
Waste Management Plan for Badri Pond Rehabilitation								
Construction Phase – Excavation &	- Improper disposal of excavated soil	- Assess excavated silt and soil for reuse in	- Contractor (Provincial Irrigation	- Quantity of reused vs. disposed soil	- Weekly	- KP Irrigation Department, DSC, SIU NBS	- No dumping outside approved	- Safety helmets Safety

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
Earthworks	causing land degradation, dust, and water pollution	embankment reinforcement and land leveling - Dispose surplus/ unsuitable material at pre-approved soil disposal sites - Compact spoil heaps and cover with topsoil and vegetation	Department)	- Condition of soil disposal sites		Team, ESS Team	sites - Stabilized spoil heaps with vegetation cover	boots - Gloves
Construction Phase – Site Clearance	- Generation of stones, debris, and vegetation - waste leading to visual nuisance and land contamination	- Segregate stones, debris, and vegetation waste - Recycle stones where feasible - Vegetation waste used for mulching or disposed at approved locations	- Contractor	- Waste segregation records - Cleanliness of site	- Weekly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- Proper segregation and disposal - No uncontrolled waste accumulation	- Gloves - Masks
Construction Phase – Construction Activities	- Accumulation of damaged construction materials (bricks, concrete)	- Collect broken bricks, concrete, and unusable materials separately - Transport to authorized recycling or disposal facilities	- Contractor	- Storage condition of damaged materials - Disposal records	- Monthly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- No mixing with domestic waste - Disposal through authorized facilities	- Helmets Safety boots
Construction Phase – Labor Camps	- waste generation causing	- Provide labeled waste bins at camps	- Contractor	- Availability and condition of waste bins	- Continuous/ Weekly	- KP Irrigation Department, DSC, SIU NBS	- Clean camps - Proper segregation	- Gloves Masks

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
	unhygienic conditions waste leading to visual nuisance and land contamination	- Segregate biodegradable and non-biodegradable waste - Compost or bury biodegradable waste in designated pits - Transport non-Recycle stones where feasible - Vegetation waste used for mulching or disposed of at approved locations		- Segregation effectiveness		Team, ESS Team - SIU NBS Team, ESS Team	and regular disposal - No - uncontrolled waste accumulation	
Construction Phase – Construction Activities	- Accumulation of damaged construction materials (bricks, concrete)	- Collect broken bricks, concrete, and unusable materials separately - Transport to authorized recycling or disposal facilities	Contractor	- Storage condition of damaged materials - Disposal records	- Monthly	KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- No mixing with domestic waste - Disposal through authorized facilities	Helmets Safety boots
Construction Phase – Labor Camps	- waste generation causing unhygienic conditions	- Provide labeled waste bins at camps - Segregate biodegradable and non- - biodegradable waste - Compost or bury	- Contractor	- Availability and condition of waste bins - Segregation effectiveness	- Continuous/ Weekly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- Clean camps Proper segregation and regular disposal	- Gloves - Masks

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
		biodegradable waste in designated pits - Transport non-biodegradable waste to disposal Sites						
Construction Phase – Equipment Operation & Maintenance	- Soil and water contamination from oil, lubricants, and fuel spills	- Conduct refueling only on impermeable surfaces - Maintain spill kits on-site - Immediate cleanup of spills	- Contractor	- Presence of spill kits - Evidence of spills or leaks	- Continuous/ Weekly	KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- No visible oil contamination - Spill response measures in place	- Gloves - Goggles
Construction Phase – Machinery Servicing	- Hazardous waste from used oil, filters, and oily rags	- Store used oil, filters, and rags in sealed, labeled containers - Dispose through licensed hazardous waste handlers or municipal authorities	- Contractor	- Storage condition of hazardous waste - Disposal manifests	- Monthly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- Compliance with hazardous waste guidelines - No leakage or improper disposal	- Gloves Masks
All Phases	- Poor waste handling due to lack of awareness	- Conduct worker training on waste segregation and spill response - Display waste management and spill response signage on-site	- Contractor	- Display Waste Management and spill response signage on-site	- Continuous / Weekly	- KP Irrigation Department, DSC, SIU NBS Team, ESS Team	- No visible waste on construction site	- N/A
Community & Worker Safety	- **Restricted Access to Water:**	- Implement a site-specific Livelihood	- Contractor/ Irrigation Department,	- Number of alternative water	- Daily	- SIU Community Mobilization	- Zero unresolved complaints	Covered under tender documents attached as

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
	Community unable to access Badri Pond. - **OHS Hazards:** Worker injuries, exposure to dust and disease.	Restoration Plan (LRP) before construction begins. - The LRP must detail alternative water access developed in full consultation with the community. - Provide all workers with appropriate PPE (helmets, gloves, boots, dust masks). - Conduct daily safety briefings. - Ensure first aid is available on site. - Hire local labor where it is possible to reduce exposure risks.	WWF PMU - Contractor	sources/access provided. - Number of complaints regarding water access. - Daily check for PPE use. - Record of safety briefings. - Accident/ incident log.		Officers, SIU Sr. Officer M&E and ESS/ DSC/ SIU - NBS Team - SIU Community Mobilization Officers, SIU Sr. Officer M&E and ESS/ DSC/ SIU - NBS Team	about water access. - LRP is fully implemented and documented. - 100% PPE compliance- Zero major accidents.	- Annex-1
	- **Community Conflict:** Disputes over jobs or benefits.	- Prioritize hiring of local labor from the Badri community. - Engage with tribal elders (jirgah) to ensure transparency and consent in hiring and project activities,	- Contractor, WWF SIU and PMU	- Number of local vs. non-local hires. - Record of community/ jirgah meetings.	- Monthly	- SIU Community Mobilization Officers, SIU Sr. Officer M&E and ESS/ DSC/ SIU - NBS Team	- The majority of labor is local. - Documented consent (FPIC) from community leaders.	- The cost is covered under the overall cost allocated implementation of these sub-activities.

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
		following the FPIC process.						
Post-Construction Phase								
Routine Bi-Annual Inspections	Undetected structural damage, erosion, sediment buildup affecting storage capacity and safety	Conduct pre- and post-monsoon inspections; prepare repair plans	Irrigation Department KP	Condition of embankments, spillway, vegetation, sediment levels	Bi-annual (Apr-May, Oct-Nov)	Irrigation Department KP, WWF-Pakistan	No defects unaddressed beyond 30 days	Included in annual O&M budgets
Embankment Maintenance	Slope instability, seepage, erosion, vegetation loss	Re-vegetation, repair sloughing/ settlement, maintain drainage, inspect seepage trench, fix stone pitching	Irrigation Department KP, CBO	Structural stability, vegetation cover	Continuous; reviewed bi-annually	Irrigation Department KP and WWF-Pakistan	No cracks, seepage, or settlement; ≥70% vegetation cover	
Check Dam Maintenance	Reduced flow regulation, structural failure, sediment blockage	Repair/replace gabions, remove excess sediment	Irrigation Department KP, CBO	Structural integrity, sediment accumulation	Bi-annual	Irrigation Department KP and WWF-Pakistan	All 5 dams functional and intact	
Spillway Maintenance	Blockage causing overflow risk, structural damage	Clear debris/vegetation; inspect crest, walls, apron	Irrigation Department KP, CBO	Obstruction level, structural condition	Annual (pre-monsoon)	Irrigation Department KP and WWF-Pakistan	100% debris-free before monsoon	
Vegetation & Bioengineering Maintenance	Loss of slope protection, erosion, ecological degradation	Watering (early years), replanting, invasive species removal	CBO, WWF-Pakistan	Vegetation coverage and health	Seasonal; annual review	Irrigation Department KP and WWF-Pakistan	≥70% vegetation cover by Year 2	Included within embankment maintenance costs
Spot Desilting (Inlet & Shallow Zones)	Reduced storage capacity, blocked inflows	Periodic spot desilting at inlet and deposition zones	Irrigation Department KP	Sediment levels at inlet, flow obstruction	Years 3 & 5 (2029, 2031)	Irrigation Department KP and WWF-Pakistan	No blockage >20% of channel width	
Community-Based Monitoring	Delayed issue reporting, reduced sustainability	Engage CBO for daily monitoring and reporting	CBO / Local Community	Number of issues reported/ resolved	Continuous	Irrigation Department KP and WWF-Pakistan	Timely reporting and resolution	Minimal (community contribution)

Phase / Aspects	Implementation Plan			Monitoring Plan				Budget/ costs In PKR
	Environmental and Social Impacts	***Proposed Mitigation Measures***	***Responsibility***	***Monitoring Parameters***	***Frequency***	***Responsibility***	***Compliance Criteria***	
Overall O&M Performance Monitoring	Decline in system performance, ecological imbalance	Annual review of O&M implementation and adaptive management	WWF-Pakistan, Irrigation Department	All key indicators (structure, vegetation, sediment)	Annual	Irrigation Department KP and WWF-Pakistan	All indicators meet defined targets	

SECTION 6: STAKEHOLDER CONSULTATION AND ENGAGEMENT

Stakeholder engagement is a cornerstone of this activity, ensuring community ownership and mitigating social risks.

6.1 Stakeholders Identified:

- Primary: The residents of Badri Village (300 households), including farmers, women, and livestock keepers who are directly dependent on the Badri Pond.
- Secondary: Tribal elders and leaders of the local communities.
- Institutional: Provincial Irrigation Department (KP), District/Tehsil Administration of D.I. Khan, and local CSOs.

6.2 Consultation Process:

Consultations were conducted during the ES Screening process which involved discussions and interviews with community members and government officials. These consultations helped identify the primary risks, particularly the community's dependence on the pond, and shaped the mitigation strategies.

6.3 Ongoing Engagement:

Engagement will be a continuous process throughout the project, guided by the **Recharge Pakistan Social Mobilization Plan**. The key steps include:

- **Community Organization:** Formalizing a Community-Based Organization (CBO) in Badri village to act as the primary partner for the project.
- **Informed Consent Process:** Undertaking a rigorous Informed Consent process with the CBO and tribal elders *(jirgah).* This will ensure that all activities, particularly those affecting resource access (the LRP) and local hiring, have broad community support and documented consent before implementation.
- **LRP Development:** The Livelihood Restoration Plan for water access is co-designed with the community, ensuring the proposed alternatives are acceptable and feasible for all, especially women and vulnerable groups.
- **Regular Meetings:** The Site Implementation Unit (SIU) staff, particularly the Community Mobilization Officers, will hold regular meetings with the CBO to provide updates, gather feedback, and address any emerging issues.

ANNEXES: SECTION 6-

I: Community consultation Reports/Stakeholders meetings:

Consultations for the Badri Pond rehabilitation were conducted in a context-specific and inclusive manner, with the participation of both women and men where relevant. During the ESS screening stage, both male and female community members were consulted to ensure broad community input, and women's perspectives were specifically sought and documented. These consultations confirmed that women are generally not responsible for water collection, a role primarily undertaken by men and boys—an observation further validated during site visits. However, in subsequent consultations related to technical design, livelihood restoration planning, and formal agreements, participation was largely limited to male community members. This approach was adopted due to a combination of factors, including local cultural norms, the established role of men in water resource management, and the technical nature of discussions, which required specific knowledge and familiarity. Additionally, formal decision-making and endorsement processes in the area are typically carried out through male tribal/community elders. Therefore, while efforts were made to include women's input at the screening and consent stages, their participation in certain consultations was limited to ensure alignment with local practices, relevance to roles and responsibilities, and the technical requirements of the intervention.

Site/Village (Union Council)	District/FR	Date of Visit	Team & Local Support	GPS Coordinates (Latitude, Longitude)	Total Attendees (Men/Women)	Primary Tribe/Sub-castes (Landowners)	Estimated Total Households (3km Radius)	Key Consultation Outcomes / FPIC Status
Burzwali (Bilot Sharif)	DI Khan	14-02-2025	SIU DI Khan Team led by (Manager ESS – RP PMU)	N: 32.329558, E: 71.135598	33 (18 Men, 15 Women)	Residents from various areas surrounding the **Badri Water Pond**	≈ 451 HHs	Consultation was carried out with both Male and Female Community Members regarding ESS Screening of the activities related to Badri Pond's Rehabilitation.
Burzwali (Bilot Sharif)	DI Khan	18-02-2025	RP SIU DI Khan's Social Team led by (Officer Social Mobilization)	N: 32.329558, E: 71.135598	27 (15 Men, 12 Women)	Residents from village Burzwali including the tribes Doori Khel, Khanu Khel, Dhor, and Dolat Khel	≈ 55 HHs	Consent process was completed. Community expressed appreciation for interventions and assured their full participation.

Site/Village (Union Council)	District/FR	Date of Visit	Team & Local Support	GPS Coordinates (Latitude, Longitude)	Total Attendees (Men/Women)	Primary Tribe/Sub-castes (Landowners)	Estimated Total Households (3km Radius)	Key Consultation Outcomes / FPIC Status
Burzwali (Bilot Sharif)	DI Khan	14-04-2025	RP SIU DI Khan's Social Team led by (Officer Social Mobilization)	N: 32.329558, E: 71.135598	11 (11 Men, 0 Women)	Residents from various areas surrounding the **Badri Water Pond**	≈ 451 HHs	An undertaking was formally signed by the community elders to ensure full cooperation from the villages surrounding Badri Pond during the construction phase of its rehabilitation. In line with prevailing cultural norms and established community decision-making structures—where formal commitments are typically endorsed by male tribal/community elders—the consultation was conducted with male representatives. Through this process, a formal undertaking was secured from the elders to confirm community support during the construction phase
Burzwali (Bilot Sharif)	DI Khan	02-07-2025	RP SIU DI Khan's ESS and NBS teams led by(Coordinator - NBS)	N: 32.329558, E: 71.135598	5 (5 Men, 0 Women)	Residents from village Burzwali including the tribes Doori Khel, Khanu Khel, Dhor, and Dolat Khel	≈ 55 HHs	Consultations were conducted with the community members of Village Burzwali to develop a Livelihood Restoration Plan for the construction phase of Badri Pond. A joint field visit was carried out by Mr. Tahir (NBS Coordinator), Mr. Faheem (Sub-Engineer, Irrigation Department), and Mr. Ansar Hussain (Senior Officer M&E and Safeguards) to assess alternative water sources for both the community and livestock, and to identify a suitable alternative access route to Badri Pond during the de-siltation process. These consultations were

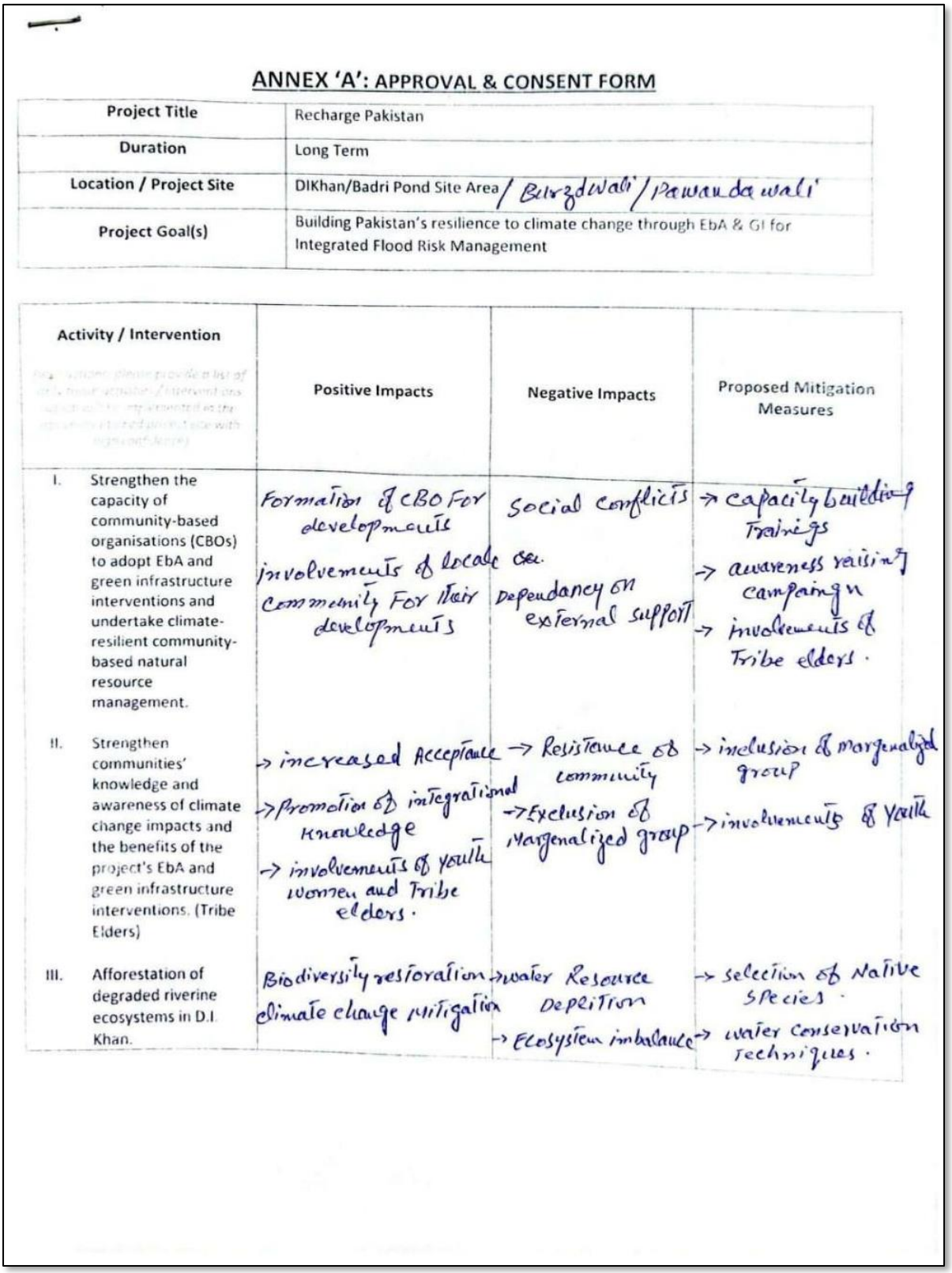
Site/Village (Union Council)	District/FR	Date of Visit	Team & Local Support	GPS Coordinates (Latitude, Longitude)	Total Attendees (Men/Women)	Primary Tribe/Sub-castes (Landowners)	Estimated Total Households (3km Radius)	Key Consultation Outcomes / FPIC Status
								primarily held with male community members, as they are responsible for fetching and managing water resources in the area and are therefore more directly involved in decisions related to water access and usage.
Burzwali (Bilot Sharif)	DI Khan	21-01-2026	KP Irrigation Department, DSC and RP teams led by (Sr. Manager – WWF Pakistan)	N: 32.329558, E: 71.135598	8 (8 Men, 0 Women)	Residents from village Burzwali including the tribes Doori Khel, Khanu Khel, Dhor, and Dolat Khel	≈ 55 HHs	Consultations with the community on the design of Badri Pond's rehabilitation were conducted by PES Consultants (DSC), covering the ecological assessment, technical design, and scope of work for the pond and its flow path. Given the technical nature of these discussions and the limited literacy levels and technical exposure among women in the village regarding such engineering aspects, the consultations were primarily held with individuals having the relevant understanding and familiarity with these subjects.

II: Community Consultation Plan

COMMUNITY CONSULTATION-MANAGEMENT PLAN FOR ACTIVITY 1.1.2 IN YEAR 2026		
Step wise community Consultative	**Responsible Party**	**Planned Measures for Community consultative Process**
Consultation Meeting with the Tribal/ Community Elders for design of Badri Pond and scope of rehabilitation work	KP Irrigation Department, Design & Supervisory Consultants, NBS, ESS and Gender Teams of SIU DI Khan.	A consultation will be conducted with the both male and female tribal elders of the Badri Pond's cluster villages to discuss the approved design of Badri Pond's rehabilitation work and scope of work. The consultation will be recorded and informed consent process will also be conducted with the tribal elders to ensure their consent. The technical teams of DSC and SIU DI Khan along with Irrigation department will take the lead to conduct the consultation meetings and will ensure the consent of the community on design and scope of work. June 2026
Consultation Meeting with the Tribal/ Community Elders for scheduling of water access in Badri Pond during construction phase	KP Irrigation Department, Design & Supervisory Consultants, NBS, ESS and Gender Teams of SIU DI Khan.	To ensure the continuous access to Badri Pond during the non-working hours of construction phase and provision of alternate water source during construction work hours for community and livestock, consultation meetings will be conducted with the tribal/ community elders of Burzwali and other surrounding villages of Badri Pond Cluster. While this consultation, safety and precautionary measures will also be discussed to ensure the construction in safe and un-harmed manner and to ensure the safety of both the labor and community around Badri Pond June 2026
Consultation Meeting with the Tribal/ Community Elders, CBO members, and Contractor of Construction work for Monitoring of Measures under Environmental and Social Management Plan and GRM	Social Mobilization, ESS, Gender and NBS Teams of SIU DI Khan	The community/ tribal elders, CBO members and contractor of construction work will be consulted by the SIU DI Khan staff for and the compliance with the measures under ESMP will be monitored. During these meetings, the SIU team will monitor the ESMP and in case of any non- compliance, the matter will be discussed and reported to the relevant forums for further course correction. The consultation meetings for any issue/ grievance of the community or contractor will be conducted and also will be documented and reported to the relevant forums for further process of grievance redressal. June – December 2026
Consultation Meeting with the Tribal/ Community Elders, and CBO members for handing over the Badri Pond	KP Irrigation Department, Design & Supervisory Consultants, NBS, ESS and Gender Teams of SIU DI Khan.	To properly handing over of the Badri Pond for ensuring its sustainability, consultation meetings will be conducted with the Tribal/ Community Elders of the villages around Badri Pond. Proper documentation will be ensured for smooth handing over process with clearly defined roles and responsibilities of the stakeholders in operation and maintenance of the Pond. The handing over documents will be designed after consultation with the stakeholders including KP Irrigation Department, Tribal/ Community Elders and proper handing taking will be conducted among the stakeholders. December 2026

III: Consent Forms

With Male Community Members of Village Burzwali



ANNEX 'A': APPROVAL & CONSENT FORM

Project Title	Recharge Pakistan
Duration	Long Term
Location / Project Site	DIKhan/Badri Pond Site Area / Burzdwali / Pawandawali
Project Goal(s)	Building Pakistan's resilience to climate change through EbA & GI for Integrated Flood Risk Management

Activity / Intervention	Positive Impacts	Negative Impacts	Proposed Mitigation Measures
I. Strengthen the capacity of community-based organisations (CBOs) to adopt EbA and green infrastructure interventions and undertake climate-resilient community-based natural resource management.	Formation of CBO For developments involvements of locals etc. community For their developments	Social conflicts Dependancy on external support	→ capacity building Trainigs → awareness raising campaign → involvements of Tribe elders.
II. Strengthen communities' knowledge and awareness of climate change impacts and the benefits of the project's EbA and green infrastructure interventions. (Tribe Elders)	→ increased Acceptance → Promotion of integrational Knowledge → involvements of youth women and Tribe elders.	→ Resistance of community → Exclusion of Marginalized group	→ inclusion of marginalized group → involvements of Youth
III. Afforestation of degraded riverine ecosystems in D.I. Khan.	Biodiversity restoration climate change mitigation	→ water Resource Depletion → Ecosystem imbalance	→ selection of Native species. → water conservation techniques.

	Excavate 264 m of flow paths in Badri Village, to restore the natural hydrology of connected wetlands.	Biodiversity Preservation Flood mitigation	Risk of Sedimentation	Engage local community - Sedimentation control practicies
V.	De-silt the 2 ha Badri Pond in the wetlands to enhance its water-holding capacity.	improve water storage capacity Flood protection.		consultation meeting with stakeholder
VI.	Enhance and reinforce 410 m of embankments in Badri Village to reduce erosion.	Reduction of erosion. - protection of infrastructure.		Consultation with Tribe elders. - Monitoring
VII.	Improve the climate resilience of vulnerable agricultural livelihoods.	→ Streghthening Rural economics → Capacity building of rural farmers	- Dependancy on External support → Market and supply chain challanges	- inclusive training - Promotion of eco-based practices - streghthening market linkages and value chain.
VIII.	Information about GRM			

	Yes	No	N/A
We acknowledge that the project's goals and activities/interventions and related impacts and risks have been explained to me and I understand them.	✓		
We acknowledge that I have been given the opportunity to ask questions about the project and been responded to satisfactorily at this time.	✓		
We acknowledge that the procedures for ensuring confidentiality as relevant to my involvement in the project have been explained to me and I understand them.	✓		
We acknowledge that the feedback collection and grievance redress mechanism(s) for the project have been explained to me and I understand them.	✓		
We understand that my participation in or agreement to the project's activities / interventions is entirely voluntary and I possess the right to withdraw the same, fully or partially, in accordance with provisions of Terms of Partnership (Annex)			N/A
We acknowledged that consent for photography/audio/video recording/ etc.	✓		

We, the undersigned, consent to:

- the project's interventions/activities as outlined above and my participation in the same as required in accordance with provisions of Terms of Partnership. ✓
- the recording and archiving of any verbal and non-verbal data or information (except for personal information), as provided by me and as relevant to the project, and the use of the same in research and analysis and other published outputs for the project.

Name	CNIC (if applicable) of respondent	Contact (phone, email or home address)	Signature or Thumb Impression
Nazir Ahmed			
M. Sohrab			
M. Bilal			
Ikram ullah			
M. Ramzan			
M. Imran			

WWF Official / Representative

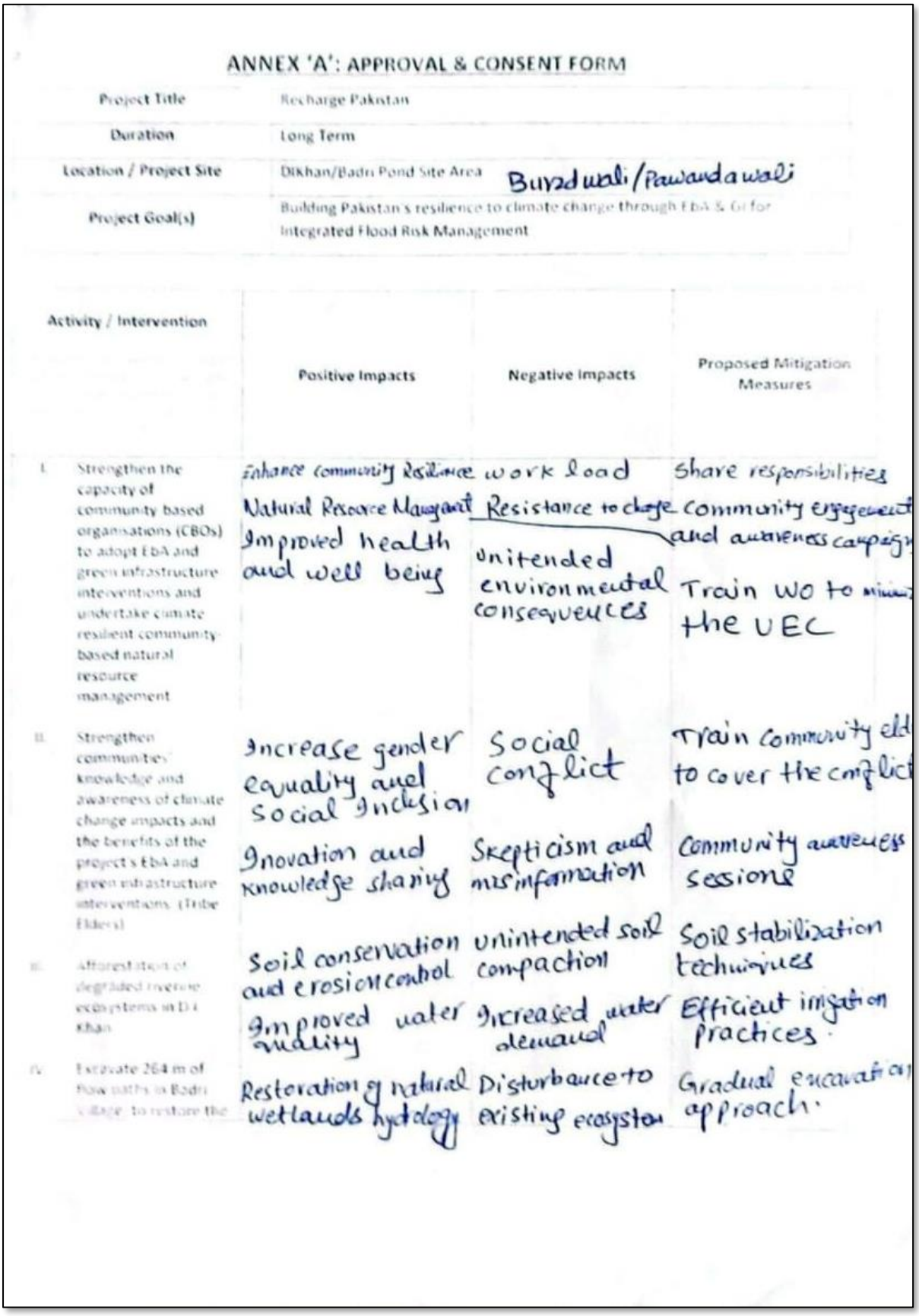
16/2/25

Signature /Date

M Sajid Ichan / officer social Mobilization

Name & Designation

With Female Community Members of Village Burzwali



ANNEX 'A': APPROVAL & CONSENT FORM

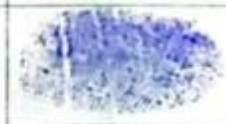
Project Title	Recharge Pakistan
Duration	Long Term
Location / Project Site	DIKhan/Badri Pond Site Area Burzdwali/Pawandawali
Project Goal(s)	Building Pakistan's resilience to climate change through EbA & GI for Integrated Flood Risk Management

Activity / Intervention	Positive Impacts	Negative Impacts	Proposed Mitigation Measures
I. Strengthen the capacity of community based organisations (CBOs) to adopt EbA and green infrastructure interventions and undertake climate resilient community based natural resource management	Enhance community Resilience Natural Resource Mangmt Improved health and well being	work load Resistance to chage unintended environmental conseqvences	Share responsibilities community engegement and awareness campaign Train WO to minim the UEC
II. Strengthen communities' knowledge and awareness of climate change impacts and the benefits of the project's EbA and green infrastructure interventions (Tribe Elders)	Increase gender equality and social inclusion Inovation and knowledge sharing	Social conflict Skepticism and misinformation	Train community eld to cover the conflict Community awareness sessions
III. Afforestation of degraded riverine ecosystems in D I Khan	Soil conservation and erosion control Improved water quality	unintended soil compaction Increased water demand	Soil stabilization techniques Efficient irrigation practices.
IV. Excavate 264 m of flow paths in Badri village to restore the	Restoration of natural wetlands hydrology	Disturbance to existing ecosystem	Gradual excavation approach.

	natural hydrology of connected wetlands.	flood mitigation and water management	Unintended alterations to water flow	Controlled flow management.
V.	De-silt the 2 ha Badri Pond in the wetlands to enhance its water-holding capacity.	Improved water storage capacity	Disturbance to aquatic ecosystem	Pre-Desilting environmental impact Assessment.
VI.	Enhance and reinforce 410 m of embankments in Badri Village to reduce erosion.	Enhanced agricultural benefits	Loss of traditional livelihood practices	Compensation for affected livelihood.
		Improved soil fertility	Altered sediment flow	Sediment deposition zone
		Enhanced flood protection and disaster resilience	Long term maintenance issue	Capacity building on Regular maintenance and inspection
VII.	Improve the climate resilience of vulnerable agricultural livelihoods.	Increased food security	High up front cost	Microfinance and community saving
		Improved livelihood for farmers	Resistance to change	farmer education and training.
VIII.	Information about GRM	Better conflict Resolution	Misuse or abuse of System	Awareness and accessability
		support sustainable development goal	Legal Risk	Transparent process for dispute resolution proce

	Yes	No	N/A
We acknowledge that the project's goals and activities/interventions and related impacts and risks have been explained to me and I understand them.	✓		
We acknowledge that I have been given the opportunity to ask questions about the project and been responded to satisfactorily at this time.	✓		
We acknowledge that the procedures for ensuring confidentiality as relevant to my involvement in the project have been explained to me and I understand them.	✓		
We acknowledge that the feedback collection and grievance redress mechanism(s) for the project have been explained to me and I understand them.	✓		
We understand that my participation in or agreement to the project's activities / interventions is entirely voluntary and I possess the right to withdraw the same, fully or partially, in accordance with provisions of Terms of Partnership (Annex)			N/A
We acknowledged that consent for photography/audio/video recording/ etc	✓		
We, the undersigned, consent to:			
the project's interventions/activities as outlined above and my participation in the same as required in accordance with provisions of Terms of Partnership.	✓		

We, the undersigned, consent to:			
• the project's interventions/activities as outlined above and my participation in the same as required in accordance with provisions of Terms of Partnership.	yes		
• the recording and archiving of any verbal and non-verbal data or information (except for personal information), as provided by me and as relevant to the project, and the use of the same in research and analysis and other published outputs for the project.	✓		

Name	CNIC (if applicable) of respondent	Contact (phone, email or home address)	Signature or Thumb Impression
Kashmiran Bibi			
Waziran Bibi			
Sultan Bibi			
Kosar Bibi			
Sakina Bibi			
Zar Bibi			

WWF Official / Representative

Signature /Date 18/2/2025

Name & Designation Laila Raza officer Social Mobilization

SECTION 7: ESMP IMPLEMENTATION MECHANISM, MONITORING PLAN & REPORTING

7.1 ESMP Implementation Mechanism:

- **Provincial Irrigation Department (through the hired Contractor):** Responsible for the day-to-day implementation of all design, construction and implementation phase mitigation measures as stipulated in their contract.
- **WWF-Pakistan PMU:** Holds overall responsibility for ESMP compliance. The **ESS Manager** (based in PMU) will provide oversight, review monitoring reports, approve site-specific plans (like the LRP), and reports.
- **Site Implementation Unit (SIU) in D.I. Khan:** Responsible for on-the-ground monitoring and coordination.
- The **SIU ESS/M&E Officer** will conduct monitoring in accordance with the frequency set in the ESMP, verify contractor compliance, and report to the ESS Manager.
- **Community Mobilization Officers** will lead stakeholder engagement, the informed consent process, and oversee the implementation of the LRP.

7.2 ESMP Monitoring Plan:

Monitoring will be conducted at multiple levels to ensure the effectiveness of mitigation measures. The specifics of what will be monitored, how often, and by whom are detailed in the table in Section 5.7. The overall monitoring framework is:

- **Compliance Monitoring:** The SIU ESS/M&E Officer will conduct regular site inspections to ensure the contractor is adhering to the ESMP (e.g., use of PPE, dust suppression, waste management).
- **Effects Monitoring:** This involves tracking the actual impact of the project on the environment and community (e.g., water quality checking/testing in the pond, tracking community complaints via GRM).

7.3 ESMP Reporting:

- The contractor will submit Biweekly/ fortnightly progress reports to the Irrigation Department and the SIU, including a section on ESMP compliance.
- The SIU ESS/M&E Officer will submit monthly monitoring reports to the PMU ESS Manager.
- The ESS Manager will consolidate these reports and include a summary of safeguards performance in the project's six-monthly Mid-year Technical Review and the Annual Performance Report submitted to the WWF US.

SECTION 8: SECURITY MANAGEMENT PLAN

Security Context

The security situation in District Dera Ismail Khan remains volatile due to an increase in terrorist incidents and intelligence-based operations (IBOs), particularly affecting surrounding districts such as Tank and South Waziristan. Law Enforcement Agencies (LEAs) are frequently targeted; however, the Badri Pond project site currently remains accessible and operationally safe. Given the dynamic nature of the security environment, a precautionary and adaptive security approach is required throughout implementation.

8.1 Purpose, Objectives, and Expected Outcomes

Purpose

This Security Management Plan provides a framework to ensure the safety and security of all project personnel (WWF staff, KP Irrigation Department staff, contractors, and local labor) and project assets during the Rehabilitation of Badri Pond. The plan addresses security, social, and operational risks associated with excavation, de-silting, and embankment enhancement activities in Badri Village Burzwali.

Objectives

- To identify and mitigate security risks linked to field operations in a fragile security context.
- To integrate community consensus mechanisms (FPIC/Jirgah) to prevent social and tribal conflict.
- To define incident response, suspension, and evacuation procedures in line with the WWF-Pakistan Security Plan and ESMF Security Protocol.

Expected Outcomes

- Zero harm to project staff and communities.
- Uninterrupted and safe implementation of pond rehabilitation works.
- Sustained community trust, neutrality, and avoidance of conflict related to water access, labor hiring, or security dynamics.

8.2 Risk Analysis and Causes of Security Disturbance

Risk Category	Key Causes Relevant to Activity 1.1.2
External Security & Conflict	Persistent threat from militant groups in the DI Khan region; increased police and military presence; potential movement restrictions during IBOs.
Internal Social Conflict	Risk of disputes if community access to Badri Pond (sole water source) is restricted during de-silting; perceived inequity in labor hiring or project benefits.
Operational & Environmental Safety	Construction hazards during excavation and embankment works, exposure to waterborne diseases (diarrhea, malaria); presence of

Risk Category	Key Causes Relevant to Activity 1.1.2
	snakes and scorpions.
Criminal Activity	Low-level risk of theft or intimidation due to weak state presence in peripheral areas.

8.3 Security Management Procedures and Protocols

This ESMP fully complies with the ESMF Security Protocol and WWF-Pakistan Security Plan. All field operations including excavation of 415 m flow paths, de-silting of 1 hectare of pond area, and embankment enhancement of 211 m will follow approved security SOPs.

Key Security Measures

- Pre-approved, daylight-only travel using GPS-tracked vehicles.
- Exclusive hiring of local labor to reduce social tension and security exposure.
- Continuous engagement with community elders (Jirgah/informed consent) to ensure acceptance, especially regarding temporary restrictions on pond access.
- Immediate suspension of activities and evacuation if security threats or official advisories are issued.
- Environmental health and safety risks are addressed through mandatory PPE use, first- aid availability, and coordination with the Forest Department and Rescue 1122.

8.3.1 Operational Security Protocols

Travel and Field Protocols

- All site visits require prior approval from the Site Manager and Manager Admin & Security.
- Field movement restricted to daylight hours only.
- Vehicles must have functional GPS tracking; staff must carry official mobile phones.
- Coordination with Rescue 1122 (DI Khan) always maintained.

Community & Conflict Risk Mitigation

- Informed consent and Jirgah consultations mandatory before and during construction to manage risks related to restricted water access.
- Temporary alternative water access measures communicated clearly to the community.
- Immediate work stoppage and evacuation if the area is deemed unstable by security authorities.

Environmental Health & Safety

- Mandatory PPE for all workers due to excavation hazards and poisonous wildlife.
- Disease prevention measures for waterborne illnesses.

8.3.2 Institutional Roles and Responsibilities

Role	Responsibility
Senior Manager, Admin & Security (PMU)	Overall security oversight; coordination with LEAs and district administration.
Site Manager	Daily liaison with LEAs; dissemination of security alerts; escort coordination if required.
Site Manager / ESS & M&E Officer	Ensure compliance with security protocols; lead FPIC and community engagement.
KP Irrigation Department (Local Staff)	Day-to-day field implementation; immediate reporting of security concerns.
All Project Staff	Compliance with no-night-travel rule, GPS use, and communication protocols.

8.3.3 Incident Reporting

All incidents must be recorded using the Incident Report Form and submitted to the Senior Manager Admin & Security (PMU) within 24 hours. High-risk incidents must be reported immediately via phone or walkie-talkie.

8.3.4 Emergency Contacts

Contact	Role
PMU Security Focal Point	Senior Manager, Admin & Security
Local Law Enforcement	Regional Police Office, D.I. Khan
Emergency Services	Rescue 1122 / Police
Manager SIU-RP	Recharge Pakistan

SECTION 9: GRIEVANCE REDRESS MECHANISM (GRM)

The project's currently existing Grievance Redress Mechanism (GRM) will be operational for the duration of the activity to ensure that any concerns from the community or workers are addressed promptly and transparently. In order to socialize with all stakeholders on RP GRM, the SIU ESS team, staff of irrigation department & staff of design consulting firms were provided initial ESMP compliance training and the same will be delivered to Water User Groups once formally organized in the intervention area.

Grievances can be raised verbally through CBOs, Water User Groups, SIU staff, or designated irrigation Department focal persons. Complaints may be communicated through one-to-one meetings, telephone calls, or voice notes submitted via the project's designated GRM phone or WhatsApp channels. All grievances will be screened using an eligibility checklist under the GRM to verify their validity and determine their nature. Grievances from workers and communities are classified according to their nature and addressed through distinct procedures tailored under GRM. Sensitive grievances, including those related to Sexual Exploitation, Abuse, and Harassment (SEAH), are handled through confidential, survivor- centred processes in accordance with the ESMF, with strict safeguards for privacy and referral to appropriate support services. Moreover, concerning Sexual exploitation, Abuse, and Harassment (SEAH), the WWF gender team based at the site implementation office will conduct dedicated awareness sessions for women in the project communities wherever security situation will allow.

9.1 Accessing the GRM:

Grievances can be submitted through 4 level GRM channels, which will be communicated to the community via posters in local languages and awareness sessions.

Channels include:

RP:

- Hotline & WhatsApp: 0300-5572564
- Email: grm@wwf.org.pk
- Complaint boxes at PMU and project site offices
- Written complaints submitted to project site offices
- Through relevant government departments

WWF-Pakistan

- Website (Whistleblowing): https://www.wwfpak.org/contact_us/
- Call or WhatsApp: +92 300-0993725
- Email: complaints@wwf.org.pk
- Address: WWF-Pakistan, Ferozepur Road, Lahore-54600

WWF International

- Whistleblowing platform: wwfinternational.ethicspoint.com

WWF-US

- Email: SafeguardComplaint@wwfus.org
- Mail: Project Complaints Officer, World Wildlife Fund, 1250 24th Street NW, Washington, DC 20037

Green Climate Fund (GCF)

- Independent Redress Mechanism (IRM): https://irm.greenclimate.fund/

9.2 Grievance Redress Process:

Full details of the Project's GRM is outlined in the Project GRM Plan. Below is the high-level overview.

- **Receipt and Logging:** All complaints, regardless of the channel, are logged in a central database by the PMU Complaints Coordinator.
- **Acknowledgement:** The complainant receives an acknowledgement within 48 hours.
- **Eligibility Screening:** The complaint is screened against the project's safeguard standards to determine its validity and severity.
- **Investigation:** For valid complaints, an Inquiry Team (comprising staff from M&E, Audit, and Safeguards) is formed to investigate. The team generates a confidential report within ten working days.
- **Resolution and Response:** Based on the findings, the PMU determines the resolution. The complainant is informed of the outcome, and the case is formally closed within a target of twenty working days from receipt.
- **Appeal:** Complainants who are not satisfied have the right to appeal to higher levels, including the WWF US Project Complaints Officer or the GCF's Independent Redress Mechanism.

ANNEX 1- PERSONAL PROTECTIVE EQUIPMENT- (PPE)

Sr.	Description	Unit	Quantity
1	Dust Masks 20 Nos.	Dust Marks	20
2	Hand-held air quality monitor	Handheld Air Quality monitor	1
3	Rubber Gloves 12 pairs	Rubber Gloves	12
4	Hand sanitizers 250 ml 12 Nos	Hand Sanitizer 250 ml	12
5	Hard hats 3 Nos	Hard Hats	3
6	Safety boots 4 pairs	Safety boots	4
7	Plastic small size office waste bins: 10 No	Plastic small office waste bins	10
8	Plastic 120 Ltr waste bins with wheels: 2 Nos.	Plastic 120 Ltr waste bins with wheels:	2
9	Container boxes for e-waste: 2 Nos.	Container boxes for e-waste:	2

ANNEX 2-WASTE MANAGEMENT PLAN FOR BADRI POND REHABILITATION

Types of Waste Anticipated

The following section outlines the classification of waste expected to be generated during the rehabilitation of Badri Pond. Waste types are categorized according to their source, composition, and handling requirements for technical management purposes.

A. Excavation and Construction Waste

Silt and excavated soil: Generated from earthworks, pond desilting, and embankment reinforcement. Requires assessment for reuse in land leveling or embankment reinforcement, with surplus directed to approved disposal sites.

Stones, debris, and vegetation waste: Includes rock fragments, construction rubble, and biomass removed during site clearance. Must be segregated for recycling, mulching, or safe disposal as per site waste management protocols.

Damaged construction materials: Comprises broken bricks, concrete, and non-reusable structural components. Should be collected for off-site disposal or recycling according to local regulations.

B. Domestic Waste

Food scraps, plastic bottles, and packaging generated by workers: Originates from daily activities at the construction site. Requires segregation into biodegradable and non- biodegradable waste streams and routine collection for sanitary disposal.

C. Hazardous Waste

Used oil, lubricants, and fuel spills: Generated from equipment operation and maintenance. Must be stored in labeled, leak-proof containers and managed according to hazardous waste handling guidelines to prevent environmental contamination.

Used filters and oily rags: Waste from machinery servicing, classified as hazardous due to potential chemical residues. Requires containment and transfer to licensed hazardous waste disposal facilities.

Waste Management Measures

A. Excavated Material Handling
B. Solid Waste Management Collection and Segregation
   - Waste bins will be provided at all construction camps.
   - Biodegradable and non-biodegradable waste will be segregated accordingly.

Disposal

- Biodegradable waste will either be composted or buried in designated pits.
- Non-biodegradable waste will be transported to authorized municipal disposal

facilities.

A. Excavated Material Handling Reuse of Excavated Soil

Suitable silt and soil shall be evaluated for geotechnical suitability and, if deemed appropriate, will be reused for embankment reinforcement and land leveling operations in accordance with project specifications.

Surplus or unsuitable excavated material will be loaded, transported, and disposed of at pre-approved disposal sites, identified in consultation with the local community and regulatory authorities, ensuring compliance with environmental standards.

Spoil Disposal Site

Spoil disposal sites shall be selected based on environmental risk assessment, ensuring locations are situated away from water bodies, agricultural land, and residential areas to prevent adverse impacts.
Spoil heaps will be systematically compacted, and the final surface will be covered with topsoil and vegetative cover to minimize erosion, dust generation, and facilitate site rehabilitation.

B. Solid Waste Management Collection and Segregation

Designated collection receptacles, fabricated from durable materials and equipped with secure lids, shall be strategically positioned throughout all construction camps and operational work zones. Each bin will be clearly labeled according to waste stream classification (e.g., biodegradable, non-biodegradable, hazardous), in compliance with the site-specific Solid Waste Management Plan (SWMP), to facilitate source segregation and minimize cross-contamination.

At the point of generation, waste materials will be segregated into biodegradable and non-biodegradable categories. Segregation will be enforced through on-site training and signage and will be periodically audited to ensure compliance. This process is intended to optimize downstream handling, including recycling, composting, or final disposal, and to support regulatory reporting requirements.

C. Hazardous Waste Management Oil and Fuel Handling

- Refueling operations will occur only on impermeable surfaces.
- Spill kits will be always maintained on-site.

Used Oil and Filters

Used items will be stored in sealed containers and disposed of via licensed waste handlers or municipal authorities.

Worker Awareness and Training

- Workers will receive training on proper waste segregation and spill response measures.
- Signage regarding waste disposal procedures will be prominently displayed on-site.

Oil and Fuel Handling

- Refuelling operations will occur only on impermeable surfaces.
- Spill kits will be always maintained on-site.

Used Oil and Filters

- Used items will be stored in sealed containers and disposed of via licensed waste handlers or municipal authorities.

ESMP Monitoring Indicators

Parameter	Indicator	Frequency	Responsibility
Soil erosion	Visual erosion on embankments	Monthly	Environmental Officer
Sediment runoff	Turbidity in pond	Quarterly	SIU / Contractor
Waste disposal	Waste properly collected and disposed	Monthly	Contractor
Hazardous spills	Number of spills reported	Continuous	Contractor

Institutional Responsibilities

- Provincial Irrigation Department (through the hired Contractor): Implementation of erosion and waste mitigation measures.
- Project SIU Environmental Specialist: Supervision, reporting to donors (World Bank / WWF).
- Local Community & Village Committee: Reporting on environmental issues.

ANNEX 3-PLAN FOR PREVENTION OF LAND EROSION AND SOIL DISTURBANCE

POTENTIAL IMPACTS

During excavation, de-silting, embankment reinforcement, and flow path rehabilitation operations, several technical risks are inherent to the construction process:

Soil Erosion and Slope Instability:

Earthworks such as excavation and embankment reinforcement can expose bare soil surfaces, making them susceptible to erosive forces from rainfall and surface runoff. This can result in the detachment and transport of soil particles from channel banks and embankments, leading to localized slope instability and, in severe cases, potential failure or collapse of pond banks.

Sediment Mobilization and Water Quality Degradation:

Disturbance of soil during construction activities can facilitate the movement of fine sediments into adjacent water bodies. This sediment increases water turbidity and can reduce water quality by introducing suspended particles, which may impact aquatic habitats and downstream water users.

Mitigation Measures

A. *Engineering and Structural Interventions Embankment Reinforcement*

The pond embankment shall be reinforced using the locally available construction material that will be mechanically compacted in controlled layers to achieve the specified density and ensure structural integrity and minimize the risk of erosion. Also, stone pitching/ grass protection shall be provided at exposed slope sections of the pond subject to erosion due to stored water in the pond, rain and movement of the locals/livestock, and wind erosion.

Check Dam Construction

Although construction of check dams was not part of the original proposal, considering the hydrological and hydraulic model outcomes indicating the risk of erosion due to high flood velocities, this intervention was deemed necessary, warranting the construction of five check dams in series. The intervention is evaluated to be effective in mitigating key risk factors, including erosion, sedimentation, and the reduced lifespan of Badri Pond. These check dams do not increase the overall water abstraction or alter existing water use patterns, but rather enhance flow regulation and sediment control, thereby improving the functionality of the pond.

The scouring has been proposed to be prevented by controlling the flow velocities/ energy dissipation through gabion mattresses and construction of five (05) no. check dams of variable size, in the watershed area, according to the topography and hydrological modeling outcomes. These structures are designed to intercept and slow down the flow of water within the channel, thereby reducing the velocity of surface runoff. By dissipating energy and inducing sediment deposit upstream of the dam, the check dams serve to effectively trap transported sediments, minimizing the volume of suspended particles and bed load entering the pond. This intervention is critical for maintaining water quality and controlling sedimentation rates within the pond

system.

B. *Construction Management Practices Restricted Work Zones*

Excavation activities will be strictly limited to areas that fall within the approved design boundaries. This measure is intended to ensure that construction remains within specified limits, thereby reducing the potential for unplanned environmental impacts.

Additionally, every effort will be made to prevent any disturbance to neighboring land. By confining work to designated zones, the integrity of adjacent areas will be preserved, by minimizing the risk of disruption.

Seasonal Scheduling

The main concentration will be on pond embankment so, there will be no major problem during the monsoon season to minimize erosion risk.

Equipment Management

Machinery Movement Control: All machinery and equipment shall be confined to pre- approved, designated haul and access routes within the construction site. The use of these routes will be verified and enforced through regular site inspections. Any deviation from these specified routes is strictly prohibited to prevent soil compaction, minimize disturbance to existing vegetation, and reduce the risk of accidental damage to sensitive areas.

Vegetation Clearance Restriction

Vegetation removal shall be limited strictly to those areas where it is essential for the execution of construction activities as per the approved site plan. After construction of project native vegetation will be grown. Clearance of vegetation outside these zones is not permitted. Protective measures such as fencing or marking shall be implemented to safeguard existing flora, and any required clearances shall be documented and justified in environmental management records.

ANNEX 4-OPERATION AND MAINTENANCE PLAN

1. Introduction

This Operation and Maintenance Plan (O&M Plan) has been prepared for the rehabilitation of Badri Pond, located in Burzwali Village, Dera Ismail Khan, Khyber Pakhtunkhwa, under Sub-Activities 1.1.2.1, 1.1.2.2, and 1.1.2.3 of the Recharge Pakistan project.

The interventions include the rehabilitation of 415 meters of flow paths, de-silting of 1 hectare of the pond area, and strengthening and reinforcement of 211 meters of embankments. Post-rehabilitation, the pond will have a gross storage capacity of 29,404 cubic meters and will serve surrounding communities as a primary source of water for domestic and agricultural use.

This plan covers five operational years from 2027 through 2031. It outlines the routine and periodic maintenance activities needed to preserve the structural integrity of the pond, protect the overall ecology, and ensure uninterrupted water availability for the dependent communities.

2. Scope and Objectives

The O&M Plan aims to:

- Maintain the structural stability of the embankments, spillway, and check dams constructed under the project.
- Preserve the post-intervention storage capacity (29,404 m^3) by managing sediment accumulation through scheduled spot desilting.
- Sustain the bioengineering vegetation cover established across all treatment zones.
- Protect the restored wetland hydrology and natural flow paths from erosion and blockage.
- Ensure ongoing community participation through the local Community-Based Organization (CBO) and intervention-based sub water user group in Badri Village.

3. Responsible Parties and Roles

Entity	Role in O&M
Irrigation Department, KP	Lead implementing authority; oversight of civil and hydraulic works, annual inspections.
WWF-Pakistan	Technical coordination, ecological monitoring, ESMP compliance, and reporting to WWF US and GCF.
CBO / Local Community	Day-to-day monitoring, community-level maintenance, reporting minor issues.

4. Key Maintenance Activities

4.1 Routine Bi-Annual Inspections (Pre- and Post-Monsoon)

Two structured inspections will be carried out every year. The pre-monsoon inspection (April-May) will assess the condition of embankments, spillway, check dams, and vegetation ahead of the monsoon season. The post-monsoon inspection (October-November) will document any damage, erosion, or sediment deposits caused by monsoon flows and prepare a prioritized repair list for the following year.

4.2 Embankment Maintenance

The multi-zone embankments (clay core, gravel filter, and rockfill shoulder) require regular attention. Maintenance tasks will include re-vegetation of exposed slopes, repair of minor sloughing or settlement, clearing of drainage blankets, and inspection of the seepage cutoff trench. Stone-pitched slopes and access staircases will be checked for displacement and re-laid where necessary.

4.3 Check Dam Inspection and Repair

Five gabion check dams constructed on the flow paths will be inspected for wire mesh integrity, stone displacement, and sediment accumulation. Damaged wire crates will be replaced and overfilled sediment compartments will be cleared to maintain flow-regulating capacity.

4.4 Spillway Clearing and Inspection

The broad-crested spillway (3 m length at El. 600 m asl) will be cleared of debris and vegetation encroachment before each monsoon season. Structural inspection will cover the spillway crest, side walls, and downstream apron for any cracking or undermining.

4.5 Vegetation and Bioengineering Maintenance

Established bioengineering measures, including native plants and grass species, will be maintained through seasonal watering during early establishment years (2027-2028), gap replanting, and removal of invasive or competing vegetation. These species are critical to slope protection and must be sustained through the plan period.

4.6 Periodic Spot Desilting

Given an estimated reservoir life of 73-92 years under design conditions, full desilting is not anticipated within this plan period. However, spot desilting at the pond inlet and shallow deposition zones are planned in Years 3 and 5 (2029 and 2031) to maintain hydraulic efficiency and protect inlet flow paths.

5. Key Monitoring Indicators

Progress against this O&M Plan will be tracked using the following indicators, to be reported by the Irrigation Department to WWF – Pakistan. The reporting will cover inspection findings, maintenance activities completed, expenditure against budget, and any emerging risks or community concerns.

Indicator	Target	Frequency
Embankment condition (no settlement, cracking, or seepage)	No defects unaddressed beyond 30 days	Bi-annual
Vegetation cover on embankment slopes	Minimum 70% cover by end of Year 2	Annual
Check dam structural integrity	All 5 dams functional and intact	Bi-annual
Spillway clear of obstruction	100% free of debris pre-monsoon	Annual (pre-monsoon)
Pond inlet sediment accumulation	No blockage exceeding 20% of channel width	Annual

7. Reporting and Plan Revision

The local community, the Irrigation Department, and WWF–Pakistan will regularly monitor the performance and implementation of this O&M Plan during the project period until 2031, as well as throughout the overall project lifespan of 30 years. Beyond 2031 (project period), the local community and the Irrigation Department will assume a greater role in ensuring the regular operation and maintenance of the pond.

This O&M Plan will be reviewed at the end of each year. Revisions may be made based on field conditions and/or changes in community needs.

Monitoring and Responsibility

Provincial Irrigation Department (through the hired Contractor):

Assigned the responsibility for implementing erosion control measures in accordance with the approved project specifications and environmental management plan. This includes installing physical barriers, maintaining silt fences, and ensuring proper drainage at the construction site.

Project ESMP Focal Person / SIU Environmental Officer:

Tasked with conducting systematic monthly site monitoring and preparing detailed compliance reports. Responsibilities include verifying the effectiveness of erosion control measures, documenting any non-conformance, and recommending corrective actions.

Community Representatives:

Responsible for community-based surveillance by reporting any observed incidents of erosion or embankment failure to project authorities, supporting early detection and responsive management of environmental risks.

ANNEX 5: PICTURES OF SCREENING ACTIVITIES AND COMMUNITY

consultations

Flow Path of Water to Badri Pond

Flow Path of Water to Badri Pond

Badri water Pond

Badri water Pond

Badri Water Pond

Badri water Pond as source of water of animals

Bank of Badri Pond

Bank of Badri Pond

School and mosque within 50 meters of pond

Vegetation around the pond

Community Meeting during E&S Screening

Community Meeting during E&S Screening

Signing of Undertaking by the Communities of Badri Pond

Consultation with Community Members for Technical Assessment of Designing for Badri Pond

Consultation with Community Members for Technical Assessment of Designing for Badri Pond

Consultation with Community Members for Technical Assessment of Designing for Badri Pond

ANNEX 6: NO OBJECTION CERTIFICATE

OFFICE OF THE SUPERINTENDING ENGINEER
DIKHAN IRRIGATION CIRCLE DIKHAN.
Phone & Fax No. 0966-9280238 Email: sedikirrigation@gmail.com.

No: 546 /DIC/9-W Dated DIKhan the 10 /04/2025
To

The Incharge,
Recharge Pakistan WWF Pakistan,
DI Khan.

Subject:- **REQUEST FOR ISSUANCE OF NO OBJECTION CERTIFICATE (NOC)-ACTIVITY 1.1.2-SCREENING.**

Reference: Your Office letter dated 09/04/2025.

With reference to above, it is solicited that this office has No Objection on preliminary activities as initiated by your office on the scheme under activity 1.1.2: rehabilitate degraded wetlands, flow paths, and channels, which is to be implemented by the Irrigation Department.

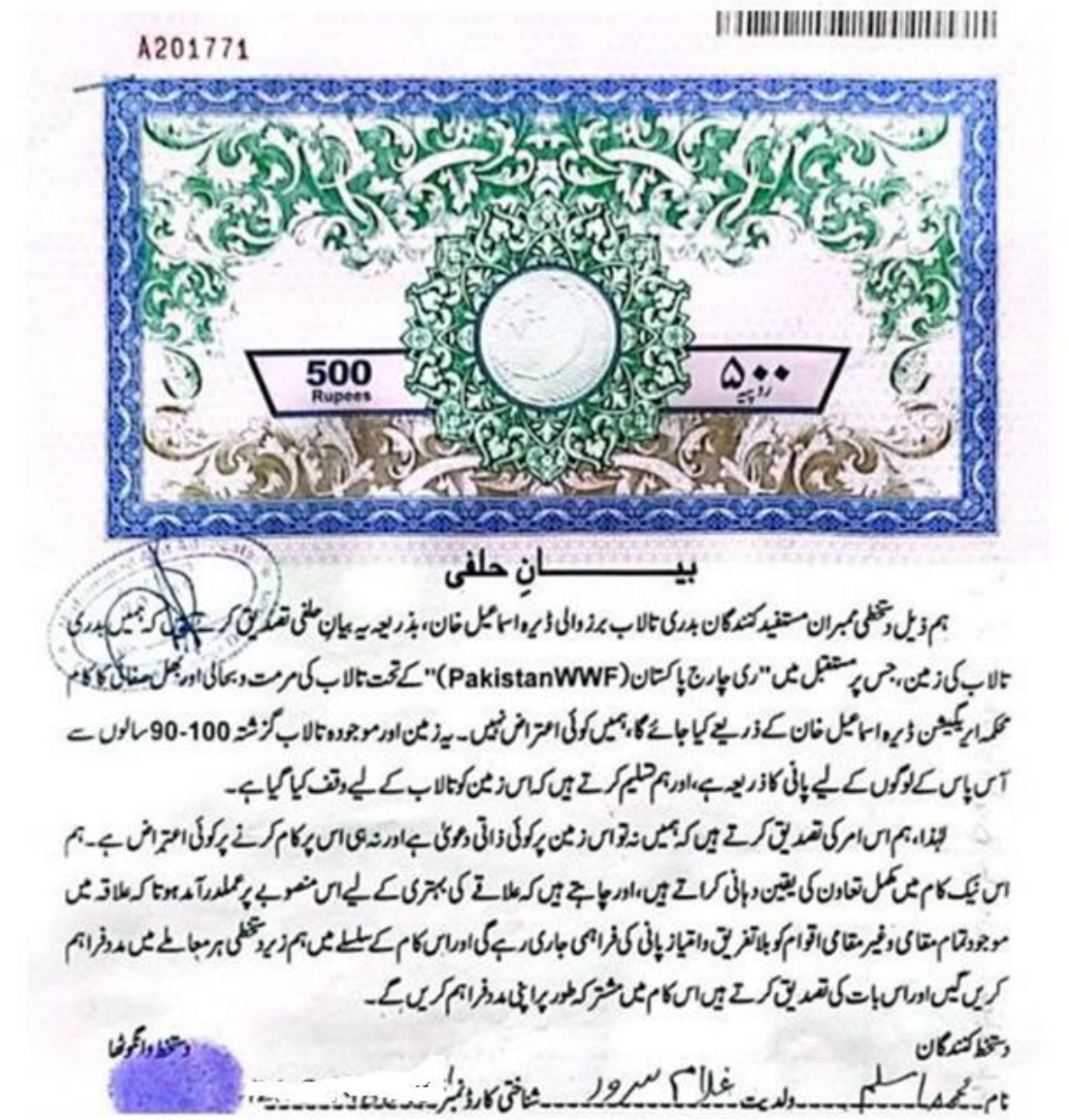
Furthermore, the pre requisite for Irrigation component of Recharge Pakistan Project, be implemented as per the term & condition of the Grant Agreement between WWF-Pakistan & Irrigation Department KP, please.

SUPERINTENDING ENGINEER

Copy to the Executive Engineer Paharpur Irrigation Division DIKhan with reference to his letter No.528/2-M, dated 09-04-2025 for information.

SUPERINTENDING ENGINEER

ANNEX 7 TERMS OF PARTNERSHIP-TOP



A201771

500 Rupees ۵۰۰ روپے

بیـــــــانِ حلفی

ہم ذیل دستخطی ممبران مستفید کنندگان بدری تالاب برزوالی ڈیرہ اسماعیل خان، بذریعہ یہ بیانِ حلفی تصدیق کرتے ہیں کہ ہمیں بدری تالاب کی زمین، جس پر مستقبل میں "ری چارج پاکستان (PakistanWWF)" کے تحت تالاب کی مرمت و بحالی اور بھل صفائی کا کام محکمہ ایریگیشن ڈیرہ اسماعیل خان کے ذریعے کیا جائے گا، ہمیں کوئی اعتراض نہیں۔ یہ زمین اور موجودہ تالاب گزشتہ 100-90 سالوں سے آس پاس کے لوگوں کے لیے پانی کا ذریعہ ہے، اور ہم تسلیم کرتے ہیں کہ اس زمین کو تالاب کے لیے وقف کیا گیا ہے۔

لہٰذا، ہم اس امر کی تصدیق کرتے ہیں کہ ہمیں نہ تو اس زمین پر کوئی ذاتی دعویٰ ہے اور نہ ہی اس پر کام کرنے پر کوئی اعتراض ہے۔ ہم اس نیک کام میں مکمل تعاون کی یقین دہانی کراتے ہیں، اور چاہتے ہیں کہ علاقے کی بہتری کے لیے اس منصوبے پر عملدرآمد ہو تاکہ علاقہ میں موجود تمام مقامی و غیر مقامی اقوام کو بلاتفریق و امتیاز پانی کی فراہمی جاری رہے گی اور اس کام کے سلسلے میں ہم زیرِ دستخطی ہر معاملے میں مدد فراہم کریں گیں اور اس بات کی تصدیق کرتے ہیں اس کام میں مشترکہ طور پر اپنی مدد فراہم کریں گے۔

دستخط کنندگان

دستخط و انگوٹھا

نام محمد سلیم ولدیت غلام سرور شناختی کارڈ نمبر

موجود تمام مقامی و غیر مقامی اقوام کو بلاتفریق و امتیاز پانی کی فراہمی جاری رہے گی اور اس کام کے سلسلے میں ہم زیرِ دستخطی ہر معاملے میں مدد فراہم کریں گیں اور اس بات کی تصدیق کرتے ہیں اس کام میں مشترکہ طور پر اپنی مدد فراہم کریں گے۔

موجود تمام مقامی وغیر مقامی اقوام کو بلاتفریق وامتیاز پانی کی فراہمی جاری رہے گی اور اس کام کے سلسلے میں ہم زیر دستخطی ہر معاملے میں مدد فراہم کریں گیں اور اس بات کی تصدیق کرتے ہیں اس کام میں مشترکہ طور پر اپنی مدد فراہم کریں گے۔

دستخط کنندگان

دستخط وانگوٹھا

نام محمد اسلم ولدیت غلام سرور شناختی کارڈ نمبر

نام محمد سہراب ولدیت محمد امیر شناختی کارڈ نمبر

نام غلام جان ولدیت حق نواز شناختی کارڈ نمبر

نام احمد نواز ولدیت غلام حیدر خانی مرحوم شناختی کارڈ نمبر

نام خان محمد ولدیت عالم شیر شناختی کارڈ نمبر

نام محمد عمران ولدیت شیر غلام شناختی کارڈ نمبر

ANNEX 8: SAFEGUARD INCIDENT REPORTING TEMPLATE:

1. **Incident Report Details**

   Date of Incident: _____ Time of Incident: _____

   Specific Location: _____

2. **Incident Category (Select the primary risk area as identified in the Safeguard Screening)**

   ☐ Hazardous Environment (harm caused by local wildlife or environmental health risks)

   ☐ Construction & Site Hazards (accidents related to the construction work and materials)

   ☐ Community Exposure to Works (risk or causes harm to local community members)

3. **Nature of Incident (Check the specific event that occurred)**

   If Hazardous Environment:

   ☐ Encounter or injury with poisonous animals (e.g., snakes, scorpions)

   ☐ Exposure to disease vectors (e.g., mosquitoes, flies near stagnant water)

   If Construction & Site Hazards:

   ☐ Incident with construction materials (cement, aggregates, steel)

   ☐ Incident near/on unstable slopes (landslide, slip, collapse)

   ☐ Drowning or near-drowning hazard in canals

   If Community Exposure to Works:

   ☐ Injury from loading/unloading materials

   ☐ Injury from machinery operations

   ☐ Fall into an unsecured excavated area

   ☐ Fuel storage/usage hazard affecting the community

   ☐ Electrical use hazard affecting the community

4. **Affected Party**

   ☐ Project Worker / Staff

   ☐ Community Member

   ☐ Other (Please specify): _____

5. **Description of the Incident**

   (Provide a clear and detailed account of what happened, the sequence of events, and contributing factors.)

   _____

   _____

   _____

6. **Immediate Actions Taken**
   (Describe immediate response: first aid, stopping work, area secured, etc.)
   _____
   _____
   _____

7. **Proposed Corrective and Preventive Actions**
   (Steps to address root causes and prevent recurrence)
   _____
   _____
   _____

8. **Incident Report Completed By:**
   Name: _____ Role: _____