
Integrated Flood Resilience and Adaptation Project (IFRAP)
Restoration of Flood Protection Embankment U/S of Nurg Hingri Weir (Shurli & Faizo Bund) (Package-II)

EXECUTIVE SUMMARY

1. PROJECT BACKGROUND

Balochistan, the largest province of Pakistan, remains one of the most water-stressed and climate-vulnerable regions of the country. Its fragile irrigation infrastructure, arid climate, and dispersed rural settlements make it highly susceptible to both droughts and floods. The catastrophic monsoon floods of 2022 caused extensive damage to dams, irrigation systems, and flood protection infrastructure, disrupting livelihoods, destroying crops, and endangering rural communities.

In response, the Government of Pakistan, with financial assistance from the World Bank, launched the Integrated Flood Resilience and Adaptation Project (IFRAP) under the broader *Post-Flood 2022 Reconstruction Programme: Resilience Enhancement and Livelihood Diversification in Balochistan*. IFRAP aims to restore and strengthen the province's water and flood management systems, enhance agricultural productivity, and integrate climate resilience into infrastructure planning and implementation.

Initially, 55 sub-projects were included in the PC-I under the Integrated Flood Resilience & Adaptation Project (IFRAP). During initial surveys twenty (20) sub-projects couldn't meet the World Bank's selection criteria given in Project Appraisal Document (PAD), hence, dropped, whereas the remaining thirty five (35) sub-projects were shortlisted for detailed design.

These Thirty-five (35) shortlisted sub-projects as shown in Figure -1-1 below are located in 19 Districts of Balochistan, including Districts Awaran, Lasbela, Hub, Naseerabad, Jaffarabad, Sohbat Pur, Jhal Magsi, Harnai, Musakhel, Sibi, Kachhi, Killa Saifullah, Pishin, Ziarat, Kalat, Mastung, Kharan, Nushki, and Washuk. The portfolio consists of 11 dams /storage structures, 11 Perennial/ Flood Irrigation schemes, and 13 flood protection structures, which have been grouped in thirteen Packages. The Flood Protection Bunds of Shurli and Faizo in District Lasbela is one of the sub-projects being implemented under Package-II of IFRAP to protect local settlements and agricultural lands from recurrent flood events.

The Flood Protection Bund lies near villages Goth Haji Saleh, Goth Ahed Jamat at coordinate's 26°20'2.82"N 66°13'24. 76"E. The proposed bund would be homogenous compacted earth-fill embankment, approximately 632 meters (Faizo Bund) and 588 (Shurli) meters in length, designed to protect the area from floodwaters originating from the Porali River and its tributaries. The sub-project will rehabilitate and strengthen the existing damaged structure with improved design standards and materials to withstand future hydrological extremes.

The project aims to:

- Protect agricultural lands and human settlements from future flood risks.
- Enhance climate resilience through strengthened flood protection infrastructure.
- Promote sustainable land use and agricultural productivity; and
- Support socio-economic recovery of flood-affected communities in Lasbela District.

The proposed works will be confined to previously disturbed areas and do not intersect with any protected areas, wetlands, or ecologically sensitive zones.

2. OBJECTIVES OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

The main objective of the ESMP is to ensure that anticipated environmental and social impacts and risks are effectively managed during the construction, operation, and closure of the project. The ESMP specifies the mitigation measures which are to be implemented by the contractor.

The Environmental and Social Management Plan (ESMP) has been prepared in line with the World Bank Environmental and Social Framework (ESF), the Environmental and Social Commitment Plan (ESCP), and relevant national and provincial environmental legislation. The ESMP provides a practical framework for identifying, mitigating, and monitoring potential environmental and social risks during project planning, construction, and operation. Its primary objectives are to:

1. Ensure that environmental and social impacts are effectively managed and mitigated.
2. Promote compliance with World Bank Environmental & Social Standards (ESS 1–10).
3. Enhance occupational health, safety, and welfare of workers and nearby communities.
4. Maintain stakeholder participation and transparency through effective consultation and grievance mechanisms; and
5. Ensure long-term sustainability, climate resilience, and community safety of the flood protection infrastructure.

The ESMP will form part of the tender and contract documents to ensure that the Construction Contractor (CC) and Construction Supervision Consultant (CSC) fully integrate environmental and social compliance requirements into their respective roles.

3. LEGAL AND POLICY FRAMEWORK

The ESMP is guided by the following frameworks and instruments:

- World Bank Environmental and Social Standards (ESS 1–10), covering risk management, labor and working conditions, pollution prevention, community health and safety, biodiversity, and stakeholder engagement.
- IFC and World Bank Group Occupational Health and Safety Guidelines.
- Pakistan Environmental Protection Act, 1997, and Balochistan Environmental Protection Act, 2012.
- National Environmental Policy, 2005, National Conservation Strategy, Pakistan Climate Change Act, 2017, and National Disaster Management Act, 2010; and
- Relevant international conventions on biodiversity, climate change, labor standards, and cultural heritage to which Pakistan is a signatory.

4. ENVIRONMENTAL AND SOCIAL BASELINE

The Shurli and Faizo project area lies within the Porali River basin in a semi-arid setting with low to sparse vegetation, active flood pathways, alluvial riverbed deposits, and agriculture-dependent settlements in the wider influence area. Environmental baseline conditions for ambient air, surface water, groundwater, and noise have been documented in the ESMP and supported by Annexure-I laboratory and field monitoring records; in case of any discrepancy between summary tables or body text and Annexure-I, the annexed published reports shall be treated as the final source of baseline data for the sub-project.

No protected area, notified wetland, or legally designated ecological conservation area is identified within the immediate project footprint based on the current ESMP; however, the presence of mapped receptors and the riverine setting requires continued control of dust, noise, waste, runoff, material sourcing, and work-site safety during construction and early operation.

5. IMPACT ASSESSMENT AND MITIGATION

The main environmental and OHS risks for Shurli & Faizo Bund during construction are: dust and exhaust emissions from earthworks and haulage; noise from machinery; spoil, waste, fuel, and wastewater mismanagement; erosion and sediment movement during excavation and bund works; unsafe movement of vehicles and equipment; worker exposure to excavation, compaction, lifting, and near-water hazards; and community exposure to traffic, open work fronts, and restricted access near active construction areas.

- These risks are manageable, but only if the Contractor implements an approved C-ESMP supported by a site-specific OHS Plan, Traffic Management Plan, Emergency Preparedness and Response Plan, Waste Management Plan, Camp Management Plan, Materials Sourcing Plan, and Vehicle and Machinery Management Plan. The ESMP monitoring framework shall use site-specific and measurable indicators, and all environmental monitoring values shall be cross-checked against the annexed lab reports and field records.

6. INSTITUTIONAL ARRANGEMENTS

Environmental and social management will be coordinated through the Project Implementation Unit (PIU) under the Irrigation Department, Government of Balochistan, with oversight by the World Bank. The Construction Contractor will implement the ESMP on-site, under supervision of the Construction Supervision Consultants (CSC) and periodic audits by the PIU.

Capacity building, training, and awareness programs will be conducted for project staff to ensure effective ESMP implementation. A dedicated Environmental and Social Specialist Team has been mobilized to oversee compliance and reporting.

7. GRIEVANCE REDRESS MECHANISM (GRM)

A transparent and accessible Grievance Redress Mechanism will be operational throughout the project lifecycle to address concerns of both workers and community members. The GRM includes a Public Complaint Cell, Grievance Redress Committee (GRC) at site and PIU level, and clear timelines for acknowledgment, investigation, and resolution of complaints.

8. ENVIRONMENTAL AND SOCIAL MANAGEMENT BUDGET

The ESMP budget shall be treated as an implementation budget, not only a narrative estimate. It shall clearly cover, at minimum, contractor environmental and OHS staffing, personal protective equipment, training, emergency preparedness materials, environmental quality monitoring, dust control and water sprinkling, waste handling, reporting, and a reasonable contingency for corrective action. Where environmental and OHS measures are included in the Contractor's BOQ, the ESMP shall state that these costs are mandatory and enforceable through the contract and monthly ESHS reporting.

9. CONCLUSION

The Nurg-Hinjri (Shurli & Faizo) Flood Protection Bund subproject can proceed under the current ESMP framework provided that environmental and occupational health and safety (OHS) provisions are strengthened at the document stage and fully translated into the Contractor's C-ESMP and method statements before commencement of works.

With the proposed revisions on climate-resilient design, construction water sourcing, vehicle and machinery control, emergency preparedness, measurable monitoring indicators, and baseline data management, the ESMP will serve as a more complete and auditable basis for compliance with World Bank Environmental and Social Standards (ESS) and applicable environmental and OHS requirements.

The subproject's implementation must also ensure that environmental, social, community health and safety, labor, and OHS commitments are fully integrated into the Contractor's C-ESMP, supervision arrangements, and monitoring records. With strengthened provisions on stakeholder engagement, budget allocation, grievance handling, climate resilience, material sourcing, machinery operation, and emergency response, the ESMP provides a robust framework for safe, sustainable, and socially inclusive execution of the works.