Environmental and Social Management Framework

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Proposed Emergency Assistance Loan, Administration of Grant, and Administration of Technical Assistance Grant
Islamic Republic of Pakistan: Sindh Emergency Housing Reconstruction Project.

Prepared by the Sindh People's Housing for Flood Affectees (SPHF), a section 42 public limited company of the Government of Sindh, for the Asian Development Bank (ADB). This is an updated version of the Environmental and Social Framework (ESMF) originally posted in August 2023, available on SPHF website.

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Sindh Floods Emergency Housing Reconstruction Project

ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK

Updated March 2024

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ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
ADB	Asian Development Bank
AED	Anti-encroachment drive
AIP	Access to Information Policy of ADB
AMP	Accountability Mechanism Policy of ADB
CHS	Community Health and Safety
EA	Environmental Assessment
EC	Environmental Checklist
EIA	Environmental Impact Assessment
E&S	Environmental and Social
ESMF	Environmental and Social Management Framework
ESO	Environmental and Social Officer
ESS	Environmental and Social Standards
ESCOP	Environmental & Social Code of Practice
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
FGRO	Field Grievance Redress Officer
GAP	Gender Action Plan
GBV	Gender Based Violence
GIS	Geographic Information System
GoS	Government of Sindh
GRM	Grievance Redress Mechanism
GTN	Grievance Token Number
IFI	International Financial Institution
IP	Implementing Partner
LMP	Labor Management Plan
MFI	Micro-Finance Institution
M & E	Monitoring and Evaluation
NGO	Non-Governmental Organization
OHS	Occupational Health and Safety
PDD	Project Development Document
PDNA	Post Disaster Needs Assessment
PIU	Project Implementation Unit
PO	Partner Organizations
PPE	Personal Protective Equipment
PRs	Pakistan Rupees
REA	Rapid Environment Assessment
RPF	Resettlement Policy Framework
SEA	Sexual exploitation and abuse
SEP	Stakeholder Engagement Plan
SEPA	Sindh Environmental protection Agency
SFEHRP	Sindh Floods Emergency Housing Reconstruction Project
SH	Sexual harassment
SPHF	Sindh People’s Housing for Flood Affectees

SPS	Safeguard Policy Statement
SSEMP	Site Specific Environmental Management Plan
STAT	Social Technical Assistance Team
TMA	Town Municipal Administration
VAC	Violence Against Children
VLD	Voluntary Land Donation
WASH	Water, Sanitation and Hygiene
WB	World Bank

EXECUTIVE SUMMARY

The Government of Sindh (GoS), as part of a consolidated effort for emergency rehabilitation of flood affectees, is implementing the "Sindh Floods Emergency Housing Reconstruction Project" (SFEHRP) with the World Bank (WB) funding. A Public Sector company "Sindh People's Housing for Flood Affectees (SPHF)" under Section 42 has been established for the design and execution of the program, which will also serve as the Project Implementation Unit (PIU) for the WB components and ADB outputs of the project.

To address the generic environmental and social impacts of the project, this Environmental and Social Management Framework (ESMF) document has been updated in compliance with relevant national and provincial laws and regulations, WB's Environmental and Social Standards (ESSs) of the Environmental and Social Framework (ESF) policy and the Asian Development Bank's (ADB's) Safeguards Policy Statement (SPS), 2009.

Project Background

Pakistan experienced heavy monsoon rains over June-September 2022 leading to catastrophic and unprecedented flooding. The 2022 floods had enormous human and economic impacts. Over 33 million people are affected; and about 2.1 million houses are reported to have been damaged or destroyed; 1.2 million animals have perished; while over 13,000 km of roads are reported to have been affected. Economic impacts are concentrated in the agricultural sector, with over 3.6 million acres of cultivated land destroyed, comprising 30 percent of total agricultural land, resulting in significant losses to cotton, date, wheat, and rice crops. Flooding will impose a lingering drag on output through infrastructure damage, disruption to crop cycles, possible financial sector impacts (microfinance institutions report major solvency problems), and loss of human capital. Preliminary estimates suggest that as a direct consequence of the floods, the national poverty rate will increase by 4.0 percentage points, pushing 9 million people into poverty. In alignment with the comprehensive analysis presented, it is estimated that poverty in Sindh will escalate by 9.7% propelling an additional 5 million individuals below the poverty threshold.

The project would contribute to rehabilitation and resilience building of flood-affected communities in Sindh. The project will provide housing subsidy grants targeted to a subset of the affected population. The technical assistance component would benefit the entire province by supporting the design of the overall housing reconstruction program of the GoS for 2022 floods rehabilitation and reconstruction. Any additional funding channeled for housing reconstruction in Sindh will be aligned with the housing reconstruction policy, standards, and principles established under this project. The project would have specific benefits for people living in the geographical locations served through the housing subsidy grants for reconstruction/restoration of destroyed houses. Through an owner-driven approach, approximately 410,000 multi-hazard resilient core housing units will be supported by the WB within the overall estimated 1.45 million completely destroyed houses Roughly half of these beneficiaries are estimated to be female, based on demographic information available for these areas.

Moreover, those beneficiaries will be trained in multi-hazard resilient construction techniques through capacity-building activities supported by the project. This will improve the long-term resilience of communities in Sindh by improving the construction designs and practices of the housing sector in view of challenges posed by climate change.

In addition to the WB supported project components, ADB will support beneficiary-driven[1] re-construction of 250,000 multi-hazard resilient[2] houses for fully damaged houses, which represent about 12% of total housing needs for Sindh. Support under this ADB-funded project will be through the provision of conditional cash grants to beneficiaries for reconstruction or restoration of a housing unit, which comprises a core structure and fixed covered area built to prescribed multi-hazard resilient standard. The project will also support the inclusive design and/or structure (e.g. universal access to housing unit/latrine, adaptive cooking area) for the most vulnerable groups[3], and at least 20,000 households will benefit from the additional conditional cash grant project.[4]

ADB will also support community-led construction of multi-hazard resilient and environment-responsive (e.g. lower carbon footprint) infrastructure such as water, sanitation, and hygiene (WASH) and renewable based off-grid electrification solutions for at least 100,000 houses. Houses and community infrastructure will be selected in consultation with GoS and SPHF and such selection will be based on a set of agreed criteria[5] included as Annex 14. Approximately 1.5 million and 600,000 residents will benefit from the reconstruction of housing and newly developed or improved community infrastructure, respectively[6]. The World Bank's funded five (5) implementing partners (IPs)[7] will continue to support the beneficiaries with additional resources under the subject project to support the planned work scope for the ADB-funded project.

Project Overview

WB's SFEHRP is a five-year project, and it comprises of the following WB funded components and the ADB funded outputs:

WB supported project components are as follows:

- Component 1: Housing Reconstruction Grants
- Component 2: Institutional Strengthening and Technical Assistance
- Component 3: Project Management and Implementation Support

ADB project is a three-year project and the project supported outputs are as follows:

- Output 1: Flood-damaged houses and community infrastructure reconstructed with multi-hazard resilient, inclusive, and environment responsive designs.

[1] Beneficiary will construct and maintain the completed works with the support by Implementing Agency (SPHF) and non-governmental organizations (NGOs). For the vulnerable people (e.g., women-headed households, households with a disability, village organization (e.g., village reconstruction committee) will support the construction of housing unit.

[2] Conventional permanent construction using burnt brick or concrete block and sand cement mortar. *Pakistan Floods 2022: Post-Disaster Needs Assessment*. The government's current conditional cash grant scheme (300,000 RPs) for the flood-affected people is to support the construction of approximately 240 square feet in-size housing unit.

[3] (i) Widows or women with disabled husbands; (ii) women-headed households; (iii) divorced, abandoned women, unmarried older women dependent on others; (iv) people with disabilities (physically or mentally); (v) unaccompanied minors (e.g. orphans); and (v) unaccompanied elders, over the age of 60.

[4] Based on the ongoing Benazir Income Support Program (BISP) and Proxy Means Test (PMT) Score.

[5] Selection criteria added as Annex 14 of ESMF is adopted from Appendix 10 of Project Administration Manual for the selection criteria of beneficiary.

[6] The average household size is 5.6 in Sindh by PDNA.

[7] (i) Health and Nutrition Development Society (HANDS), (ii) Sustainable Actions to Access Financial Capital Opportunities (SAFCO), (iii) Thardeep Rural Development Programme (TRDP), (iv) National Rural Support Programme (NRSP), and (v) Sindh Rural Support Organization (SRSO) (February 2023 for 30 months)

- Output 2: Community resilience improved.

The project development objective is to support the GoS in the delivery of owner-driven, multi-hazard resilient reconstruction of core housing units for post-2022 floods. Around 43% affectees live either on state or village land mostly without land title. In such cases, if the eligible beneficiary does not have land title, the GoS will provide them with residential land entitlements as per residential land titleship policy post approval of the same by the competent forum i.e., GoS (Sindh Cabinet). It is to be noted that eligibility for reconstruction support supersedes any application for land entitlements under the project.

For the non-titleholders, the first preference of the project is to provide them in situ reconstruction support and formalizing their ownership in case if they are located on a state land in the form of a settlement in an area already earmarked as declared villages; or through voluntary land donation (VLD) in case they are located on private land.

For non-title holders located on government lands which are not declared villages, the project will strive to get these settlements declared as villages. In rare cases they could voluntarily resettle to existing declared village lands, where possible. In these cases, the applicants will have to establish that they incurred losses in the form of complete destruction of their previous housing structure (the structure owned by the applicants whereas land is not owned by the applicants).

For non-title holders located on private lands, the project preference is to get the land transferred in the name of the beneficiaries through VLD. Where the existing owner is not willing for VLD, the beneficiaries could voluntarily resettle to declared village lands where possible. In these cases, the applicants will have to establish the complete destruction of their previous housing structure (the structure owned by the applicants whereas land is not owned by the applicants).

Institutional and Policy Framework for Environmental and Social Management

The key regulatory institution for the management of environmental and social aspects of the proposed project is the Sindh Environmental Protection Agency (SEPA). Sindh Environmental Protection Act is a comprehensive legislation and providea the legislative framework for protection, conservation, rehabilitation, and improvement of the environment. The project will follow the requirements of this Act. The project has obtained environmental approval from SEPA. The relevant laws and policies include Pakistan Climate Change Act (2017), National Disaster Management Act (2010), Sindh Environmental Protection Regulations (2021), Sindh Solid Waste Management Act (2021), Sindh Cultural Heritage (Preservation) Act (1994), Sindh Wildlife Protection, Preservation, Conservation and Management Act, 2020, The Sindh Occupational Safety and Health Act, 2017, The Sindh Prohibition of Employment of Children Act, 2017, The Protection Against Harassment of Women at the Workplace Act, 2010, and The Sindh Local Government (Amendment) Act, 2021. In addition to the national/provincial legal requirements, the project will also comply with the World Bank's ESF including Environmental and Social Standards (ESSs) requirements as well as the ADB's Safeguard Requirements i.e. SR-1—Environmental Safeguards, SR-2—Involuntary Resettlement Safeguards and SR-3—Indigenous People Safeguards as outlined in the ADB's SPS, 2009.

Baseline Description

The WB and ADB funded project (SFEHRP) area lies in 24 districts of Sindh. Geographically, Sindh is the third largest province of Pakistan, stretching about 579 km from north to south

and 442 km (extreme) or 281 km (average) from east to west, with an area of 140,915 square kilometers (54,408 square miles) of Pakistani territory. Sindh is bounded by the Thar Desert to the east, the Kirthar Mountains to the west and the Arabian Sea in the south. In the center is a fertile plain around the Indus River. During floods 2022, all the 4 distinct parts of Sindh: (a) Kirthar range on the west; (b) a central alluvial plain bisected by the Indus River; (c) a desert belt in the east; and (d) the Indus delta in the South were affected by the floods. Sindh is divided into three climatic regions: Siro (the upper region, centered on Jacobabad, Kashmore, Kandhkot, Shadadkot, Larkana, Khairpur, Sukkur, Ghotki), Wicholo (the middle region, centered on Hyderabad, Jamshoro, Dadu, Shaheed Benazirabad, Sangarh, Nausharo Feroze), and Lar (the lower region, centered on Karachi, Thatta & Badin).The province of Sindh is situated in a subtropical region; it is hot in the summer and cold in winter. The selected districts have a total population of 24,755,427. Approximately 51% (17,851,577) of the population of the selected districts live in rural areas whereas, the remaining 49% (6,891,905) live in urban areas with Tharparkar at 92% rural population topping the chart. Khairpur Mirs is the most urban of the selected districts but even there, only about 32% of the population resides in urban areas. The detailed baseline is presented in the report.

Environmental and Social Impacts and Mitigation Measures

Houses to be supported under the project will be owner-built, constructed in-situ and/or at alternative nearby locations owned by the beneficiary. The civil works are of beneficiary driven small scale, site-specific and take place at different locations over a large geographical area. The acquisition of land is not envisaged. Involuntary resettlement, including physical or economical displacement that could be likely from land acquisition, forced eviction from the assets owned/occupied by the communities and restricted access to the resources will be strictly avoided during execution of the project. Therefore, significant environmental and social impacts are not anticipated. Experience from the initial screening of the project indicates that the on-ground activities are likely to have low to moderate level environmental and social impacts other than involuntary resettlement.

The potential environmental and social impacts during the construction phase of the project include (a) dust generation, (b) soil erosion and degradation, (c) risk of surface and ground water contamination, (d) soil contamination, (e) waste generation, (f) noise generation, (g) site clearance and impact on flora/fauna, (h) occupational health and safety, (i) community health and safety issues, (j) influx of labor and working conditions, (k) child labor, (l) gender based violence (GBV) / sexual exploitation and abuse (SEA) / sexual harassment (SH), (m) land ownership, (n) exclusion risks to women, marginalized and disadvantaged group, (o) elite capture, and (p) voluntary resettlement related social issues. The mitigation measures are proposed to tackle these environmental and social impacts during construction phase of the project. These mitigation measures will be implemented at the construction sites.

In the case of ADB financing, based on the expected scale and scope of works, the project has been categorized as 'B' for Environment as per ADB SPS, 2009. As such, once the sub-project locations and their respective scales and scopes have been identified, Rapid Environmental Assessment (REA) checklists will be completed by the implementing Agency (IA) which is SPHF and/or its Implementing Partners (IPs) for each sub-project and shared with ADB for endorsement. The REA checklists will be completed based on subproject site visits, discussions with local environmental protection authorities and other relevant stakeholders as necessary. ADB will be available to support SPHF in the screening and categorization and ADB's confirmation of the categorization.

Subsequently, multiple Initial Environmental Examinations (IEEs) or one umbrella IEE study,

as agreed between SPHF and ADB, along with their respective Environmental Management Plans (EMPs) will be prepared[8] in accordance with ADB SPS, 2009 requirements. Such IEEs will be delivered by the project development document (PDD) consultants for the WASH and settlement improvements. The draft IEE will be submitted to ADB by SPHF and will be revised in accordance with ADB comments. The finalized IEE study will be formally submitted by SPHF for disclosure on the ADB website. Also, SPHF will translate the summary of the IEE(s) into local language and post them on the SPHF website, with the full report(s) in local language, within two weeks after ADB's clearance of each document.

Stakeholder Consultations

Stakeholder consultations were carried out from 13 to 26 May 2023 with various stakeholders including donors, line departments, and implementing partners, and the potential beneficiary and non-beneficiary community in flood affected areas. This engagement aimed to ascertain institutional needs, inform stakeholders about planned activities, improve project design, create synergies, and enhance the socio-environmental sustainability of the project activities across different components. In addition, SPHF organized a coordination meeting in April 2023 to share objectives of SPHF and the project with partner organizations for their clear understanding of the project. The main concerns raised during these consultations were related to the (i) problems in individual bank account opening (ii) banking procedures and (iii) beneficiaries not fully aware of access to the funds and other project requirements. The project teams provided detailed responses to the communities during these consultation meetings and made part of this report. A stand-alone Stakeholder Engagement Plan (SEP) has been prepared, which includes a communication strategy to inform key stakeholders, including the affected communities, to effectively understand, engage in and support the development of the project.

As part of the ADB reconnaissance mission in October 2023 and the pre-fact-finding mission in January and February 2024, the ADB project team along with its consultants conducted consultations with key stakeholders consisting of SPHF, line departments of GoS, project implementing partners (IPs) of SPHF, non-governmental organizations (NGOs) as well as other beneficiaries and international financing agencies including WB and Islamic Development Bank (IsDB).

Environmental and Social Risks and Impacts Management

The sequence of various activities to be followed for the environmental and social management of the proposed activities are as follows:

- Screening of proposed subprojects before the start of construction activities;
- Environment and Social (E&S) aspects will be considered during the preparation of design of resilient housing structures, WASH and settlement improvements;
- Consultation with the stakeholders, including affected communities during the screening and project implementation. Disclosure of updated ESMF and E&S screening reports on the SPHF website;
- Submission of settlement level updated screening checklist after approval from SPHF to the WB and ADB for clearance;
- Inclusion of environmental and social provisions for IPs' contracts for effective implementation at construction sites; and,

[8] If investments on improvement of existing facilities are involved under the project, an environmental audit shall be conducted wherever required following ADB's SPS 2009 provisions. .

- Implementation of updated ESMF, screening checklists / ESCOPs by IPs during the construction phase.

SPHF, the executing and implementing agency will be responsible for managing the overall implementation of the project ensuring compliance with the provisions of this updated ESMF. The Environmental Specialist, Social Specialist and Gender Specialist will ensure the safeguards management plans and procedure mentioned in the ESMF are being followed and implemented during the project life cycle. The SPHF will review and consolidate the monthly E&S monitoring reports (submitted by the IPs) to deliver quarterly E&S monitoring reports for WB and ADB's review and approval. The approved quarterly E&S monitoring reports will be disclosed on the websites of SPHF, WB and ADB.

Implementing Partners (IPs): to support the Environmental Specialist, Social Specialists and Gender specialist in implementing ESMF, conduct screening of sub-project locations, comply with ESMF, resettlement policy framework (RPF), labor management plan (LMP) and grievance redress mechanism (GRM). The E&S staff of IPs will screen the E&S impacts and issues for each selected settlement by using the updated screening checklists and the screening reports, including completed screening checklists will be delivered to SPHF for review and seeking approval from the respective international financial institutes (IFI) such as WB and/or ADB. E&S team will supervise and monitor safeguards compliance progress to ensure the ESMF provisions and the ECOPs are fully compiled. The monitoring will be done by using pre-structured monitoring and incident reporting checklists and monthly monitoring reports will be prepared and delivered to the SPHF for review and concurrence.

Beneficiaries: Beneficiaries will construct their houses as per the resilient housing design and minimum construction guidelines provided by the SPHF.

Third Party Monitoring Firm: A third-party firm will be hired to monitor compliance, including compliance of ESMF and other social and environmental management instruments. This will be done on a random and continual basis throughout the project duration. The monitoring system will also be linked to the payment mechanism to ensure effective resolution of issues prior to payments to the beneficiaries.

Grievance Redressal Mechanism (GRM)

An accessible GRM for the beneficiaries and staff made available publicly to receive and facilitate resolution of concerns and grievances in relation to the project. The main objective of GRM is to assist in resolving complaints and grievances in a timely, effective, and efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective, and lasting outcomes.

For SEA/SH and GBV-related matters, SPHF and IP staff responsible for receiving complaints will be provided with training on handling complaints regarding GBV, violence against children (VAC) and SEA / SH from a certified and reputable organization/firm. The project will also draw up a list of established service providers who can provide support to GBV, SEA/SH and VAC survivors and all relevant cases will be referred accordingly.

As part of the GRM, stakeholders or their representatives (grievance reporters) may communicate their grievances verbally or in writing using the appropriate communication channels of GRM document. However, given this project's scale and potential impact on the affected communities, grievances may come from several official and unofficial channels.

Whatever the case, all persons responsible for implementing the GRM must record grievances expressed through appropriate channels, either officially or unofficially, into the grievance management information system (GMIS) and grievance redress web portal upon

receiving them. The system will disallow the entry of complaints that do not carry adequate contact information (i.e., complete phone number, e-mail address, and mailing address) unless the reporter wishes to remain anonymous. However, in such cases, the grievance reporter must provide locational information to enable authentication and follow-up for further details on required data fields. The VRC may maintain a physical register, called a Grievance Log until they can either make the entry themselves or contact the relevant field grievance redress officer (FGRO). Once entered, the system will auto-generate a unique Grievance Token Number (GTN) for each grievance record received. The system will automatically transmit this GTN and an acknowledgement to the grievance reporter on the communication medium stated at entry.

Cost of ESMF

The cost of ESMF implementation for the WB component is PRs 190.81 million (approximately USD 0.68 m). This includes the cost of training to the project implementation staff of IPs and cost of provision of personal protective equipment (PPE) to the beneficiaries at the settlement level.

The cost for implementation of safeguard measures for the ADB funded project components will be determined once the sub-project locations and their respective scopes of work have been defined.

1 INTRODUCTION

1.1 Introduction

As part of a consolidated effort for emergency rehabilitation of the flood affectees, the Government of Sindh (GoS) is implementing the "Sindh Floods Emergency Housing Reconstruction Project" (SFEHRP) with funding from IFIs including WB and ADB. As part of this, a separate company under Section 42 has been established for the design and execution of the program (namely, the Sindh People's Housing for Flood Affectees – SPHF)[9], which will also serve as the PIU for WB and ADB funded project components and outputs.

This ESMF document has been prepared in compliance with relevant national and provincial laws and regulations, WB's ESF policy and ADB's Safeguards Policy Statement, 2009 (ADB's SPS, 2009). The project encourages in-situ reconstruction. Acquisition of land and/or involuntary settlement will not be required. People who willingly want to reconstruct their house on their self/family-owned land parcels on a new location will be facilitated. Hence, the project does not envisage any involuntary resettlement. However, for minor cases involving beneficiary driven voluntary resettlement, a rapid assessment would be carried out to safeguard the households who choose to resettle voluntarily to a new place away from their old location. In such cases, site specific potential social issues and risks will be screened, and the assessment will also specify the social safeguards provided for the voluntarily self-relocating families.

1.2 Project Background

Pakistan experienced heavy monsoon rains over June-September 2022 leading to catastrophic and unprecedented flooding. The 2022 floods had enormous human and economic impacts. Over 33 million people are affected; and about 2.1 million houses are reported to have been damaged or destroyed; 1.2 million animals have perished; while over 13,000 km of roads are reported to have been affected. Economic impacts are concentrated in the agricultural sector, with over 3.6 million acres of cultivated land destroyed, comprising 30 percent of total agricultural land, resulting in significant losses to cotton, date, wheat, and rice crops. Flooding will impose a lingering drag on output through infrastructure damage, disruption to crop cycles, possible financial sector impacts (microfinance institutions report major solvency problems), and loss of human capital. Preliminary estimates suggest that as a direct consequence of the floods, the national poverty rate will increase by 4.0 percentage points, pushing 9 million people into poverty. In alignment with the comprehensive analysis presented, it is estimated that poverty in Sindh will escalate by 9.7%, propelling an additional 5 million individuals below the poverty threshold.

The GoS launched house to house physical survey (joint survey) with collaboration of federal and provincial agencies. This completed joint survey estimates that about 2.1 million houses have been damaged (1.5 million fully damaged and 0.6 partially damaged houses) in the province. Rural houses were particularly impacted, which accounts for more than 83 percent of the total housing damages. The extent of damage to katcha (mud) houses has been higher than that of pucca (brick/stone) houses. As per the post disaster needs assessment (PDNA) report, housing damages are estimated at about US$5.5 billion, mostly affecting Sindh. The actual cost of housing damage in Sindh is higher than PDNA estimates (2.1 million vs 1.7 million), given that 0.4 million more houses have been ascertained to be damaged as per the

[9] A dedicated Section 42 Company under Companies Act 2017, the SPHF, has been established by GoS for the operation of the program, whose functions include planning, technical, fiduciary, and safeguard due diligence and monitoring of the overall post-flood housing reconstruction program of the province.

joint survey. The devastating floods also significantly damaged the infrastructure of cities like K. N. Shah, Thari Mirwah, Kot Diji, etc.[10]

The Project would contribute to rehabilitation and resilience building of flood-affected communities in Sindh. The Project will provide housing subsidy grants targeted to a subset of the affected population. The technical assistance component would benefit the entire province by supporting the design of the overall housing reconstruction program of the GoS for 2022 floods rehabilitation and reconstruction. Any additional funding for housing reconstruction in Sindh will be aligned with the housing reconstruction policy, standards, and principles established under this Project.

The Project would have specific benefits for people living in the geographical locations served through the housing subsidy grants for reconstruction/restoration of destroyed houses. Through an owner-driven approach, approximately 410,000 multi-hazard resilient core housing units is supported by the WB within the overall estimated 1.5 million completely destroyed houses. Roughly half of these beneficiaries are estimated to be female, based on demographic information available for these areas. ADB financing will support the re-construction of an additional 250,000 housing units and the community-led construction of multi-hazard resilient and environment responsive (e.g., lower carbon footprint) infrastructure such as WASH and renewable based off-grid electrification solutions for at least 100,000 houses.

Moreover, an estimated 400,000 beneficiaries will be trained in multi-hazard resilient construction techniques through capacity-building activities supported by the project. This will improve the long-term resilience of communities in Sindh by improving the construction designs and practices of the housing sector in view of challenges posed by climate change.

1.3 Project Overview

The WB's SFERHP is five-year project, and it comprises of the following WB funded components:

Component 1: Housing Reconstruction Grants
Component 2: Institutional Strengthening and Technical Assistance
Component 3: Project Management and Implementation Support.

The ADB project is a three-year project with the following outputs:

Output 1: Flood-damaged houses and community infrastructure reconstructed with multi-hazard resilient, inclusive, and environment responsive designs.
Output 2: Community resilience improved.

The ADB-funded project will also be executed with support of the five (5) IPs who are working for the WB-funded project, procured for the project. Project details are given in Chapter 2.

1.4 Environmental and Social Assessment of the Project

The Project follows the environmental and social standards of WB and ADB. Based on WB standards, the environmental and social risk of the project is categorized as "Substantial". In the case of ADB financing, the Project is classified category 'B' for Environment as per ADB's SPS 2009 requirements since any potential impacts from the sub-projects are expected to be site specific and few, if any, will be irreversible. For Involuntary Resettlement and Indigenous People safeguards requirements, the Project is classified category 'C'.

[10] https://pnd.sindh.gov.pk/storage/resourcePage/6HIheXyEgxgsTGiYMYVR2TJ1NZAzS9eckS5GiIZ1.pdf

The rating is driven by the fragile environment created by the large-scale disaster which has caused social and environmental damage as well as limited experience of institution in implementing WB ESF and ADB SPS requirements. Although the on-ground activities are likely to have low and insignificant to moderate level impacts both socially and environmentally, considering the scale of the project and number of entities involved in implementation and potential E&S capacity related limitations, the overall rating of the project remains substantial as per WB standards and category B for Environment and category C for IR and IP as per ADB SPS, 2009.

Furthermore, the actual construction will be performed by the beneficiaries thereby increasing the occupational health and safety (OHS) and community health and safety (CHS) risks. This increases the cumulative risk not only in terms of environmental and social implementation but monitoring, reporting and remedial activities as well. Moreover, the flood damages have resulted in massive amounts of disaster waste, in the form of rubble, debris (demolished buildings and infrastructure), hazardous waste (containing asbestos) and other types of waste (expected to be in low quantity) that require safe disposal. The ESMF has been prepared considering the WB ESF “substantial” risk rating and ADB safeguards categorization of the project.

Environmental Aspects: As Component 1 (under WB funding) and Output 1 (under ADB funding) will include reconstruction of units that is spread over large geographical area, the associated environmental impacts such as construction waste management, dust generation, impacts on flora & fauna, community health and safety, occupational health and safety and heritage sites (if any) can be mitigated by the implementation of appropriate mitigation measures. Additionally, due to the increase in demand for construction material it is expected that there will be pressure on the use of natural resources, but it will be managed through phased construction in each settlement. However, the environmental risks are not likely to be significant in nature and the risks and impacts are expected to be reversible and site specific without the likelihood of impacts going beyond the action footprint of the project.

Given that the Project has been classified B for Environment as per ADB SPS, once the sub-project locations and their respective scales and scopes have been identified, (REA) Checklists will be completed by the IA, which is SPHF and/or its IPs for each sub-project and shared with ADB for endorsement. The REA checklists will be completed based on subproject site visits, discussions with local environmental protection authorities and other relevant stakeholders as necessary. ADB will be available to support SPHF in the screening and categorization and ADB’s confirmation of the categorization.

Subsequently, multiple IEEs or one umbrella IEE study, as agreed between SPHF and ADB, along with their respective EMPs will be prepared in accordance with ADB SPS, 2009 requirements. If existing facilities are involved, an environmental audit shall be conducted, if applicable. The draft IEE will be submitted to ADB by SPHF and will be revised in accordance with ADB comments. The finalized IEE study will be formally submitted by SPHF for disclosure on the ADB website. Also, SPHF will translate the summary of the IEE(s) into local language and post them on the SPHF website, with the full report(s) in local language, within two weeks after ADB’s clearance of each document.

Social Aspects: The proposed project showcases a profound commitment to delivering substantial social benefits to communities affected by floods and seeks to address various challenges associated with reconstruction and rehabilitation. The following key aspects highlight the project's social focus:

Economic Relief for Affected Households: The project's implementation of grants under component 1 will play a pivotal role in alleviating the economic burden faced by families with completely or partially damaged houses due to floods. By providing financial assistance, the

project aims to facilitate the rebuilding process and support affected households in their recovery journey.

In-situ Reconstruction and Land Utilization: The decision to prioritize in-situ reconstruction of houses, wherever possible, is a socially responsible approach. This choice not only fosters the preservation of community ties but also eliminates the need for land acquisition, mitigating potential disputes and ensuring that residents can continue living in their familiar surroundings.

Ethical Relocation Measures: In instances where relocation of houses or settlements is required, the project demonstrates a commitment to ethical practices by giving preference to communal and/or government-owned land for the new sites. This approach safeguards communities from arbitrary displacements and fosters trust between the government and the affected populations.

Fair Land Acquisition Policies: It is aimed that the acquisition of private owned land will be avoided and wherever needed, the available government land parcels will be allocated for relocating the flood affected households away from flood plain with high flood incidence during monsoon period. For cases where private land acquisition becomes necessary, the project diligently adheres to applicable safeguard policies and requirements of the IFI's. This ensures that the rights of landowners are protected, and compensation is provided fairly, thus promoting social equity and justice.

Addressing Vulnerabilities: Recognizing the heightened risks of SEA as well as SH, particularly among women and children from minority communities living in insecure environments, the project incorporates a comprehensive strategy to prevent and address such risks during civil works and Cash for Work (CfW) activities. By focusing on privacy and safe sanitation facilities, the project aims to create an inclusive and safe environment for all beneficiaries.

Rigorous Risk Assessment: The project displays a strong commitment to safeguarding vulnerable populations by employing social protection and civil works risk screening tools for initial risk assessment. By identifying potential vulnerabilities and challenges, the project can better tailor its interventions to meet the specific needs of each community. Both social protection and civil works risk screening tools were used for initial risk assessment and to determine the substantial risk rating.

1.5 Environmental and Social Documents

In compliance with the national/provincial regulations, the WB ESF and the ADB's SPS 2009, the following specific environmental and social documents are prepared for the project:

Table 1.1: Environment and Social Instruments

Document	Objective	Status
Environmental and Social Management Framework	To address the generic environmental and social impacts of the proposed project this document has been in compliance with relevant national and provincial laws and regulations, WB's ESF and ADB's SPS 2009.	Approved but is updated by incorporating ADB's SPS requirements.
Stakeholder Engagement Plan	To identify the project stakeholders and describe the various modes of stakeholder engagement including consultations and grievance redress mechanism.	Approved

Table 1.1: Environment and Social Instruments

Document	Document	Document
Labor Management Procedures	To describe assessment of potential labor	Approved

	related risks, overview of labor legislation, staff responsibility, policies and procedures.	
Environmental & Social Commitment Plan	To summarize the various actions taken and responsibilities to be fulfilled for environmental and social aspects in compliance with WB ESF.	Approved
Environmental & Social Code of Practices (ESCOPs)	To serve as minimum standards during the reconstruction phase of the project, addressing potential environmental and social impacts and will be made part of the ESMF. (Attached as annex 1).	Approved but is updated by incorporating ADB's SPS requirements.
Environmental & Social Screening Checklist	To identify appropriate E&S measures and instruments for mitigating and monitoring of environmental and social risks/impacts associated with each subproject on settlement level.	Approved
Resettlement Framework (No Resettlement Framework to be prepared). Resettlement Policy & Assessment Checklists for screening of settlements involving involuntary and voluntary resettlement is attached as **Annex-10.** To avoid land acquisition and involuntary resettlement voluntary land donation will be explored for which a VLD agreement template from#3 and VLD Assessment Checklist # 4 is included in annexure -10.	The project encourages the in-situ reconstruction, and no involuntary resettlement will be required, whereas the people who willingly want to reconstruct their house to a new location will be facilitated. If there are any small-scale voluntary resettlement, it will be handled by a rapid assessment for each case to safeguard the households who choose to resettle voluntarily to a new place away from their old location. The assessment will also specify the social safeguards provided for the relocated families.	Checklist including template for voluntary land donation agreement prepared as part of ESMF

1.6 Environmental and Social Management Framework

The majority of project activities are likely to have minor/insignificant environmental and social impacts while a few of the activities might result in significant impacts which would be largely site specific and short term in nature. The updated ESMF has been prepared to identify generic environmental and social impacts and to formulate a framework for future detailed assessments to be carried out once the nature and location of subprojects are fully determined.

The ESMF has been developed to:

- Integrate the environmental and social concerns into the identification, design, and implementation of all the project interventions to ensure that those are environmentally and socially sustainable;
- Ensure all relevant environmental and social issues are mainstreamed into the design and implementation of the sub-projects;
- Consider in an integrated manner the generic environmental and social risk, benefits and impacts of the project and identify generic measures to avoid, minimize and manage risks and impacts while enhancing benefits;
- Provide guidance to prepare Environmental and Social Instruments for the subprojects in compliance with the government's policies, acts, and rules as well as with the WB ESF and the ADB's SPS, 2009.
- Establish beneficiary selection criteria.
- To establish clear procedures and methodologies for the environmental and social planning, assessment, review, approval, and implementation of subprojects to be financed under the Project;

- To develop methodology for screening of subprojects and to recommend appropriate safeguard instruments for mitigating and monitoring of environmental, social, and resettlement risks/impacts associated with each sub-project;
- To specify appropriate roles and responsibilities of all implementing agencies and outline the necessary reporting procedures for managing and monitoring environmental and social concerns related to sub-projects; and
- To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF.

1.7 ESMF Study Methodology

The methodology followed in preparing the present ESMF consists of the following steps:

1.7.1 Review of the relevant Legislations, Policies and Guidelines

To determine the policy, legal and institutional environment for the project, the applicable policies, guidelines, and legislations concerning the project's environmental and social aspects were reviewed. As the project is to be implemented in twenty-four districts of Sindh (nineteen districts funded by the WB[11]), the following policies and legislations were reviewed:

- Policies and legislations of Government of Pakistan, and GoS.
- The WB Standards, Guidelines, Policies and Directives.
- The ADB's SPS 2009 and relevant OM/BP F-1 2013.
- The ADB's Accountability Mechanism Policy (2013).
- The ADB's Access to Information Policy (2019).

The ESMF has been updated following the requirements defined in the WB's ESF and ADB's SPS, 2009.

During the present study, the above legislations, regulations, and framework were studied to determine their relevance and applicability to the Project, in addition to determining and specifying actions to be taken by the project proponents / implementing partners to fulfill the associated requirements. Further details of these legislations, regulations and framework are presented later in the document.

1.7.2 Review of Secondary Literature

Under this task, relevant published and unpublished reports and documents were identified and reviewed. These include, among others, similar environmental assessment reports particularly of donor-funded projects, project documents, environmental and social management frameworks, environmental monitoring reports, news articles, and research reports. The primary objective of this task was to determine the potentially negative environmental and social impacts of similar projects and the associated mitigation/management strategies that were proposed to address those impacts. Secondary data was also collected where applicable to obtain baseline conditions of the project area and its surroundings.

1.7.3 Stakeholder Engagement

Stakeholder consultations were carried out from 13 to 26 May 2023 with various stakeholders

[11] Five districts including Karachi, Hyderabad, Noshehro Feroz, Shaheed Benazirabad and Ghotki are other project districts.

including donors, line departments, and implementing partners, and the potential beneficiary and non-beneficiary community in flood affected areas. This engagement aimed to ascertain institutional needs, inform stakeholders about planned activities, improve project design, create synergies, and enhance the socio-environmental sustainability of the project activities across different components. In addition to that SPHF organized a coordination meeting in April 2023 to share objectives of SPHF and the project with partner organization for their clear understanding of the project. As a part of the ADB reconnaissance mission in October 2023 and a pre-fact-finding mission in January and February 2024, the ADB project team along with its consultants conducted consultations with the key stakeholders consisting of SPHF, line departments of GoS, project IPs of SPHF, non-governmental organizations as well as other beneficiaries and international financing agencies.

1.7.4 Collection of Baseline Data

Baseline data was collected and compiled, to develop an initial baseline of the project area's physical, biological, and socio-economic environment. For this purpose, mostly secondary sources were used to the extent possible.

1.7.5 Environmental and Social Impact Assessment

After the completion of baseline data impact assessment was carried out to determine the potentially negative but generic impacts of the proposed project activities and generic mitigation measures were identified to address the potential impacts. In addition to the above, screening criteria were developed to determine the level and extent of environmental assessment to be carried out at settlement level.

1.7.6 ESMF Structure

- **Executive Summary:** This provides a general summary of the ESMF contents and key findings, in a vocabulary that is easily understood by the public at large. It concisely covers all aspects of the report.
- **Chapter 1 – Introduction:** This Chapter describes the ESMF purpose, objectives, principles, and methodology. This Chapter introduces SPHF and provides other relevant information. The layout of ESMF is also described in it to facilitate its reading.
- **Chapter 2 - Project Description:** This Chapter provides a simplified description of the proposed Project. The project description includes background and purpose of the project, components of the project.
- **Chapter 3 - Environmental and Social Management Requirement:** This Chapter describes the relevant national/provincial environmental and social legal requirements as indicated in various legislation, regulations, and guidelines relevant to the project and ESMF as well as the WB's ESF applicable to the project and its subprojects. The Chapter states how such requirements will be complied with during various phases of the project.
- **Chapter 4 - Environmental and Socio-Economic Characteristics:** This Chapter covers the dimensions of the study area and reviews relevant physical, biological, land-use, and socioeconomic conditions. This Chapter has been compiled based on baseline data collection described in Section 1.6.3.
- **Chapter 5 – Environmental & Social Risks and Impacts:** This Chapter describes the generic E&S impacts to be potentially caused by the proposed project along with the associated generic mitigation measures to address these impacts.
- **Chapter 6 – Stakeholder Consultations:** This Chapter summarizes the stakeholder engagement activities carried out so far in addition to presenting a summary of the

stakeholder consultations carried out.

- **Chapter 7 – Environmental & Social Management:** This Chapter describes the E&S management framework including institutional arrangements, monitoring framework and training and capacity building plan.
- **Chapter 8 - Grievance Redress Mechanism (GRM):** This Chapter describes the GRM proposed for the project to address the complaints and grievances raised by project affected persons and other stakeholders.
- **Chapter 9-** ESMF budget is presented in Chapter 9.

2 PROJECT DESCRIPTION

2.1 Sindh Flood Emergency Housing Reconstruction Project (SFEHRP)

In the aftermath of exceptionally heavy monsoon rains since June 2022 GoS has initiated Sindh Flood Emergency Housing Reconstruction Project.

Under this Project, the Govt. of Sindh will provide ex-gratia financial assistance of PRs 300,000/- for fully destroyed houses and PRs 50,000/- for partially damaged houses (amount and provision are subject to be change as per policy/decision by GoS) respectively to the affected people whose houses have been fully or partially damaged during the unprecedented rains in various districts of Sindh. Collectively this project will cover 24 districts (list attached as Annex II).

2.2 SFEHRP Objectives

The Project Development Objective (PDO) is to deliver beneficiary-driven, multi-hazard resilient reconstruction of core housing units affected by the 2022 floods in selected districts of Sindh.

The project will measure progress towards the PDO with the following indicators:

- Core housing units reconstructed/restored to multi-hazard resilient standards (of which at least 25 percent are female headed households and households with vulnerable women).
- Beneficiaries that have received project trainings for multi-hazard resilient reconstruction practices (of which 15 percent are female).
- Households reporting satisfaction with project interventions.

2.3 Project Principles

Given the complex nature of the housing sector, particularly in the Sindh province, the project design is guided by the following set of principles based on the Bank's experience in post-disaster housing reconstruction programs:

- Owner-driven rebuilding with financial assistance through cash grants as a housing subsidy for constructing a core unit – a mode well-suited to large-scale post-disaster emergency reconstruction;
- Provide technical assistance and training for rebuilding to multi-hazard resilient standards;
- Housing cash grants to replace / restore damaged houses with a new core unit built / restored to multi-hazard resilient standards. The extensive damage in the housing sector was largely due to poor quality of construction. The reconstruction effort needs to ensure focus on resilient materials and construction techniques to provide protection from future disasters. Each core unit will be equipped with a water collection system, a twin pit latrine, and solar power solutions, wherever possible;
- Rebuild in situ, except for rural landless or those without land title, as far as possible, to minimize resistance to relocation and the need to ensure provision of livelihood opportunities in new locations, including provisions of physical and social infrastructure;
- Rebuild with easily accessible materials and familiar methods reflecting cultural preferences. The multi-hazard resilient standards and designs must relate to the use of economical and readily available materials, familiar modes of construction, and cultural preferences in design for sustainability;

- Offer an equitable assistance package as housing grant for a core unit that is not compensation-based. Compensating households proportionate to the replacement value of their loss would increase the government's liability significantly and encourage litigation. The project will refer to the Sindh Resettlement and Rehabilitation (R&R) Policy 2022 (revised version, January 2023) of the Government of Sindh; and
- The Sindh R&R policy 2022 is designed for involuntary resettlement while, for beneficiary driven voluntary relocation project specific Resettlement Policy Framework is being finalized to support the beneficiaries without land title.

RURAL AREAS:

- The following two options for resettlement will be implemented:
- Option A - in and in proximity to larger towns and cities (of a 100,000+ population) where the landless poor can be reskilled, have better livelihood opportunities, enhance social mobility, and improve access to quality services. This option would ultimately also enable the development of "agglomeration economies" across Sindh; and
- Option B - in the largest settlement within each village to increase settlement size and reduce scatter, enabling effective efficient service provision.

URBAN AREAS:

- The following two options will be implemented (as appropriate and in compliance with the provisions of ESS5)
- Option A - regularization of land where they are currently residing; and
- Option B - resettled within the same city/town limits and as close as possible to their place of work/economic opportunity or with good connectivity.

For all the options in rural and urban areas, where requisite state land is not available for resettlement sites, the government should first identify pertinent sites owned by the state, create consensus amongst the potential beneficiaries for voluntary resettlement, and then give leases to beneficiaries receiving housing units.

2.4 Project Components

2.4.1 WB Supported Project Components

The following are the project components supported by the WB.

Component 1: Housing Reconstruction Grants

This component will support the provision of cash grants to homeowners for owner-driven reconstruction or restoration of damaged houses. The grant would finance: (a) replacement of a destroyed house with a new multi-hazard resilient core unit; or (b) restoration and strengthening of a damaged house to acceptable resilience standards.

The cash grants under this component will be geographically targeted to selected talukas in nineteen affected districts. The grants will fund the reconstruction and restoration of approximately 410,000 units, out of 1.5 million fully destroyed units to be reconstructed. The remaining units will be funded as per provisions available with the GoS and other multi-lateral bi-lateral donors along with additional financing etc.

Component 2: Institutional Strengthening and Technical Assistance

This component funded by the WB would cover the entire flood affected areas of the province.

Subcomponent 1: Detailed Damage Assessment & Eligibility Verification Survey: The survey will be conducted to: (a) categorize the level of damage to each housing unit; (b) establish the status of land ownership; and (c) establish lists of eligible beneficiaries and vulnerable individuals/households that are unable to prove their identity/property ownership, including households with disabled persons and households headed by women with high dependency ratios.

The survey teams will ideally comprise a minimum of three to four persons - a government representative, a female social organizer, a male social organizer, and an engineer. Between around 800 - 1,000 teams will be hired (assuming each team covers an average of 15 to 20 units per day) and trained over about one and a half months. The component will cover the costs of developing the survey instrument, as well as administering the survey. The instrument will be designed, and initial training of trainers and the teams will be done by the agency, i.e., SPHF and/or specialized consultants, with overall administration and oversight by the implementing agency.

Subcomponent 2: Technical Assistance for Reconstruction Program: This will include support for: (i) Formulation of Housing Reconstruction Strategy: This strategy will provide the policy framework for the overall housing reconstruction program of the Government of Sindh, including eligibility criteria, compensation policies, and technical standards; (ii) Developing Multi-Hazard Resilient Housing Solutions which are efficient, economical, and suited to local norms and locally available materials. These solutions will be standardized across the reconstruction program to ensure transparency and efficiency; (iii) Skills Training Program for Communities and Artisans including resilient construction practices for artisans and orientation of beneficiaries on program participation. Specialized training programs will also be introduced to train masons in responding to the needs of persons with disabilities, as well as to benefit persons with disabilities beyond the life of the project.

Subcomponent 3: Implementation Support through Partner Organizations: In view of the extensive outreach needed for the credible administration and monitoring of the housing reconstruction, existing public sector institutional capacity will require considerable reinforcement. This component will assist in enhancing the public sector's delivery capacity through partnerships with reputable IPs which will include NGOs and Micro-finance Institutions (MFIs) having strong existing outreach at community level.

Specific IPs will also be engaged to: (i) support women and other vulnerable groups in demonstrating property ownership and eligibility for grants, managing construction activities and dealing with any instances of coercion, violence or abuse; (ii) coordinate participatory land adjudication and verification processes, as well as community-driven reconstruction services for women and other vulnerable groups; and (iii) undertake outreach to women, vulnerable groups and the wider community. Wider engagement activities may also be required to obtain support for women's inclusion in the project among men and other 'gatekeepers' within the community. These vulnerable groups will be largely informed about the existing GRM and will be helped to have access to it.

Component 3: Project Management and Implementation Support

This component will support the management and implementation of the project, including the establishment and operationalization of SPHF. The activities supported will include: (i) incremental operating costs including recruitment of incremental operating staff and individual consultants as required; (ii) consultancy firm costs; and (iii) expenditures on fiduciary systems, environmental and social management requirements, Communications, and setting up of a Grievance Redressal Firm.

Overall project management, implementation, liaison/coordination, capacity building, internal monitoring and coordinated project reporting will be the responsibility of "Sindh People's Housing for Flood Affectees" (SPHF).

2.4.2 ADB Supported Project Components and Outputs.

Following are the ADB supported project components/outputs.

Output 1: Flood-damaged houses and community infrastructure reconstructed with multi-hazard resilient, inclusive, and environment responsive designs. This output will fund beneficiary driven[12] reconstruction of at least 250,000 multi-hazard resilient[13] houses for fully damaged houses, which represent about 12% of total housing needs for Sindh. Support under this output will be through the provision of conditional cash grants to beneficiaries for reconstruction or restoration of a core housing unit, which comprises a core structure and fixed covered area built to prescribed multi-hazard resilient standard. IPs engaged under WB's Project will support the beneficiaries covered in the ADB Project. The output will also support the inclusive design and/or structure (e.g., universal access to housing unit/latrine, adaptive cooking area) for the most vulnerable groups, and at least 20,000 households will benefit from the additional conditional cash grant project.[14]

Output 1 will also support construction of community-led multi-hazard resilient and environment responsive (e.g., lower carbon footprint) infrastructure such as WASH and renewable based off-grid electrification solutions for at least 100,000 houses. Houses and community infrastructure will be selected in consultation with GoS and SPHF based on a set of agreed criteria (footnotes 1 and 2).

Approximately 1.5 million and 600,000 residents will benefit from the reconstruction of housing and newly developed or improved community infrastructure, respectively.[15] The World Bank's funded five (5) implementing partners (IPs)[16] will continue to support the beneficiaries, with additional resources under the subject project to support the planned work scope for Output 1.

Output 2: Community resilience improved. The project will support strengthening community resilience with SPHF, IPs and various stakeholders, including non-governmental organizations (NGOs), civil society organizations (CSOs), national and international institutions, and academia. The project will support (i) skills development for resilient housing and community infrastructure; (ii) community-led climate and disaster-resilient village planning; (iii) innovative methodologies for climate and disaster-resilient reconstruction of housing and/or community infrastructure, and (iv) integrated rural development solutions through GIS-based platform comprised of government data (e.g., land management, disaster risk management, WASH infrastructure, electricity, education, health, transport, and agriculture).

2.5 Project Beneficiaries

The project would contribute to the rehabilitation and resilience building of flood-affected communities in Sindh. While the housing subsidy grants would be targeted to a subset of the affected population, the project, through its technical assistance component, would benefit the entire province by supporting the design of the overall housing reconstruction program of

[12] Beneficiary will construct and maintain the completed works with the support by Implementing Agency (SPHF) and non-governmental organizations (NGOs). For the vulnerable people (e.g., women-headed households, households with a disability, village organization (e.g., village reconstruction committee) will support the construction of housing unit.
[13] Conventional permanent construction using burnt brick or concrete block and sand cement mortar. *Pakistan Floods 2022: Post-Disaster Needs Assessment*. The government current conditional cash grant scheme (300,000 PRs) for the flood-affected people is to support the construction of approximately 240 square feet in-size housing unit.
[14] Based on the ongoing Benazir Income Support Programme (BISP) and Proxy Means Test (PMT) Score.
[15] The average household size is 5.6 in Sindh by PDNA.
[16] (i) Health and Nutrition Development Society (HANDS), (ii) Sustainable Actions to Access Financial Capital Opportunities (SAFCO), (iii) Thardeep Rural Development Programme (TRDP), (iv) National Rural Support Programme (NRSP), and (v) Sindh Rural Support Organization (SRSO) (February 2023 for 30 months)

the GoS for 2022 floods.

The Project would have specific benefits for people living in the geographical locations served through the housing subsidy grants for reconstruction/restoration of damaged houses. Through an owner-driven approach, approximately 410,000 multi-hazard resilient core housing units will be supported by WB. Construction of another 250,000 core housing units as per prescribed multi-hazard resilient standards and construction of community-led multi-hazard resilient infrastructure such as WASH and off grid renewable energy facilities will be supported by ADB. Roughly half of these beneficiaries are estimated to be female, based on demographic information available for these areas.

Moreover, beneficiaries will be trained in multi-hazard resilient construction techniques through capacity-building activities supported by the project. This will improve the long-term resilience of communities in Sindh by improving the construction designs and practices of the housing sector in view of challenges posed by climate change.

2.6 Beneficiary Selection Criteria

Though the report suggests 2.1 million houses were damaged either partially or fully due to floods 2022, however, the current project does not include almost 0.6 million pucca houses that were partially damaged. The potential beneficiaries of the project are summarized in terms of their land ownership status and the expected extent of project support in the following table.

Table 1.1: Beneficiary Status and Project Support Criteria

Type of Land Ownership	No. of Damaged Houses	%age of Total (Eligible for Project Support)	Potential Project Support	WB Funded (Yes/No)
Government Department Land	15,806	<1%	• In-situ reconstruction (regardless of land ownership status)	No
			• Voluntary resettlement on state land with Land titles. Resettlement Policy & Assessment Checklists attached as **Annex-10**	Yes
Joint Ownership Private Land	48,117	2%	• In-situ reconstruction	Yes
Other Private Land	356,126	17%	• In-case of tenants, wherever possible the project will strive to convince private landowners for voluntary land donation wherever the settlements are established. • In case of tenants who want to voluntarily relocate themselves to a new place identified by themselves and deemed appropriate by the project will be provided with land title ship and reconstruction support as per the policy.	No
Owner Willing to Donate or Not	9	-	-	
Self/Owned Private Land	516,201	25%	• In-situ reconstruction	Yes
State Land	599,693	29%	• Land titles • In-situ construction • Existing settlements: land titles will be awarded	Yes
Uncertain Ownership	54,079	<3%	• Ownership status to be confirmed/revalidated through data cleaning	TBD
Under Litigation in a Court of Law	141	-	-	No

Table 1.1: Beneficiary Status and Project Support Criteria				
Type of Land Ownership	**No. of Damaged Houses**	**%age of Total (Eligible for Project Support)**	**Potential Project Support**	**WB Funded (Yes/No)**
Village Land/Community	291,364	14%	• Land titles • In-situ construction • Existing settlements: land titles will be awarded	Yes
Data Not Available/ under validation	180,827	9%	-	TBD
Total	**2,062,363**	**100%**		

The data in the above table reveals that around 43% affectees live either on state or village land mostly without land title. In such cases, if the eligible beneficiary does not have land title, the GoS will provide them with residential land entitlements as per residential land title ship policy post approval of the same by the competent forum i.e., GoS (Sindh Cabinet). It is to be noted that eligibility for reconstruction support supersedes any applications for land entitlements under the project.

For the non-titleholders the first preference of the project is to provide them in situ reconstruction support and formalizing their ownership in case if they are located on a state land in the form of a settlement in an area already earmarked as declared villages; or through VLD in case they are located on private land earmarked and allowed by the respective landowners for settlement of peasants.

For non-title holders located on government lands which are not declared villages, the project will strive to get these settlements declared as villages. In rare cases, they could be voluntarily resettled on existing declared village lands, where possible. In these cases, the applicant will have to establish that they incurred losses in the form of complete destruction of their previous housing structure (the structure owned by the applicant whereas land is not owned by the applicant).

For non-title holders located on private lands earmarked for settlements of peasants by the respective landowners, the project preference is to get the land transferred in the name of the beneficiaries through Voluntary Land Donation (VLD). Where the existing owner is not willing for VLD, the beneficiaries driven relocation will be encouraged and thus the beneficiaries could voluntarily move to the relocation sites of their choice or declared village lands, where possible. In these cases, the applicant will have to establish that they incurred losses in the form of complete destruction of their previous housing structure (the structure owned by the applicant whereas land is not owned by the applicant) which will be validated through the IPs following the design guidelines and ESCOPs. A voluntary land donation agreement template form #3 and detailed assessment checklist # 4 for voluntary land donation process is included in attached Annexure 10 “Resettlement Policy and Assessment Checklists”.

2.7 Project Implementation Schedule

2.7.1 A: Implementation of WB components

The implementation of WB’s SFERHP commenced in the last quarter of 2022 and according to the current schedule, the implementation of WB funded components will continue till mid-2025. The component wise implementation activities and targeted timelines are summarized in work plan presented as Figure 2.1 below:

Sindh Flood Emergency Housing Reconstruction Project (SFEHRP)

PROJECT WORK PLAN

"===" denotes process/continuity, and "*" denotes milestone achievement

	Component Description	FY 2022-23		FY 2023-24				FY 2024-25		
		Q-3	Q-4	Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3
Component 1 – Housing Reconstruction Grants										
1.1	Replacement of a destroyed house with new multi-hazard resilient core units		===	===	===	===	===	===	===	*
1.2	Restoration and strengthening of a damaged house to acceptable resilience standards.									
1.3	Supportive Infrastructure @ 5% of compensation									
Component 2 – Institutional Strengthening and Technical Assistance										
Subcomponent 2.1: Detailed Damage Assessment & Eligibility Verification Survey										
2.1.1	Damage Assessment and Verification Survey	===	===	===	*					
Subcomponent 2.2: Technical Assistance for Reconstruction Program										
2.1.2	Formulation of Housing Reconstruction Strategy	===	*							
2.1.3	Developing Multi-Hazard Resilient Housing Solutions and its Revision	===	===	===	*					
2.1.4	Skills Training Program									
2.1.4a	Training of IP Staff in the areas of social mobilization, environment, gender, grievance redressal, disaster preparedness & risk reduction, and multi-hazard resilient and inclusive Housing	===	===	===	===	===				
2.1.4b	Trainings of Community in the areas of multi-hazard resilient and inclusive Housing, grievance redressal, disaster preparedness & risk reduction, Financial Management, Supervision of Construction, Environment, and Social Management.		===	===	===	===	===	===	===	
2.1.4c	Trainings of Artisans (Masons, Carpenters, Plumbers, Electricians)		===	===	===					
Subcomponent 2.3: Implementation Support through Partner Organizations										
2.3.1	Engagement of Implementation Partners									
2.3.2	Organize Project Inception Mission/Workshop									
2.3.3	Design and Supervision Consultancy for Infrastructure									
Component 3 – Project Management and Implementation Support										
3.1	Establish a Company "Sindh Peoples Housing for Flood Affectees (SPHF)" under section 42									
3.2	Recruitment of CEO, COO, CFO, Specialists and other required Staff									
3.3	Develop Web Database and Project CMIS	===								
3.4	Support and upgrade Web Database and Project MIS		===	===	===					
3.5	Develop Mobile Application and Dashboard	*								
3.6	Hiring of 3rd Party Independent Technical Verification Consultants	===								
3.7	Hiring of 3rd Party M&E Firm		===	===	===	*	===	===	===	===
3.8	Development of ESMF, ESMP, LMP, GRM, GAP, SEP		===	===	===	*				
3.9	Statutory Audit Firms		*	===	===	===	===	===	===	===
3.10	Internal Audit Firm		*	===	===					
3.11	Engineering Support Services Consultants		*	===	===	===				
3.12	Media and Communication Support Consultants		===	*	===	===	===	===	===	===
3.13	Project Reporting	===	===	===	===	===	===	===	===	===
3.14	WB Implementation Support Missions		*		*		*		*	
	Subtotal									
	Contingency									
	Total									

Figure 2.1: Work Plan for WB funded project components.

2.7.2 Implementation of ADB funded project Outputs

The implementation activities for ADB funded outputs will commence upon effectiveness of the ADB loan after the project loan signing. It is expected that the loan can be signed by the end of Q2 2024. Selection of flood effected settlements and disbursement of funds for implementing project civil works for reconstruction of flood damaged housing units and construction of settlement improvements/community infrastructure (e.g. WASH, off-grid renewable energy facilities) under Output 1 and for implementing soft component activities under Output 2 can commence from Q3 2024, The construction of housing works under Output 1 will be completed by Q2 2026, while the community infrastructure works will be completed by Q2 2027. The capacity development activities under Output 2 can continue until Q2 2027.

2.8 Project Implementation Arrangement

2.8.1 SPHF

The operational management of this project will be handled by the SPHF, a Section 42 government-owned not-for-profit entity registered with the Securities & Exchange Commission of Pakistan. SPHF functions as the PIU and operates with a lean structure, mirroring the efficiency of a private sector organization. The Board of Directors, led by the Chairman P&D Sindh, consists of six members. SPHF will act as a crucial link between the GoS, IPs, and the flood-affected people.

2.8.2 Implementing Partners (IPs)

The project is implemented with the support of five (5) IPs, district wise arrangement is presented in the table below.

Table 2.2: Implementing Partners (IPs)

S. No.	IP	Project Area	
		WB Supported Districts	Other Project Districts
1	**National Rural Support Program (NRSP)**	Badin, Matiari, Mirpur Khas, Sanghar, Sujawal, Tando Muhammad Khan, Tando Allahyar	-
2	**Sindh Rural Support Organization (SRSO)**	Jacobabad, Kamber-Shahdadkot, Khairpur Mirs, Larkana and Shikarpur	-
3	**Health & Nutrition Development Society (HANDS)**	Sukkur, Thatta and Umerkot,	Ghotki, Hyderabad, Karachi-Malir
4	**Thardeep Rural Development Programme (TRDP)**	Kashmore, Dadu, Jamshoro, and Tharparkar.	-
5	**Sustainable Actions to Access Financial Capital Opportunities Support Foundation (SAFCO)**	-	Naushero Feroze and Shaheed Benazirabad

2.8.3 Third Party M&E Consultants

A third-party firm will be hired to monitor compliance of ESMF and other social and environmental management instruments. This would be done on an annual basis throughout the project's duration. The monitoring system will also be linked to the payment mechanism to ensure effective resolution of issues prior to payments to the beneficiaries.

Third party monitoring/validation will ensure that the required outcomes as per acceptable standards have been achieved. The firm will also review and comment on the continuing adequacy of the financial management (FM) system and any actions that IPs need to take. In addition, innovative supervision strategies such as geo-referenced photographs and videoconferencing are expected to be utilized since the geographic scope of the project is widely spread.

3 ENVIRONMENTAL & SOCIAL POLICIES REGULATIONS & LAWS

Chapter 3 describes the WB standards and ADB SPS and related policy requirements applicable to the project and its subprojects as well as relevant national and provincial environmental and social legal requirements as indicated in various legislation, regulations, and guidelines relevant to the project and ESMF scope.

3.1 National & Provincial Legal Framework

This section briefly describes the national and provincial laws, policies, strategies, guidelines, codes, and procedures relevant to the project and stipulates the various requirements that have been or will be complied with during the planning and implementation stages of the project. A crisp summary of relevant national/provincial laws and regulations is provided in Table 3.1 below.

Table 3.1: National & Provincial Legal Framework

National & Provincial Policies, Rules and Regulations	Description	Project Relevance
Pakistan Climate Change Act 2017	To monitor implementation of the international agreements relating to climate change, approve and monitor implementation of comprehensive adaptation and mitigation policies, strategies, plans, programs, projects and other measures formulated by the authority to meet Pakistan's international obligations, monitor the implementation of National Adaptation Plan and its constituent provincial and local adaptation action plans, approves guidelines for the protection and conservation of renewable and nonrenewable resources, species, habitats and biodiversity adversely affected or threatened by climate change.	This Act is relevant. The project involves reconstruction on a massive scale which would contribute to the significant use of natural resources, and generation of solid waste.
National Disaster Management Act, 2010	The Act was passed in backdrop of 2010 Floods in Pakistan and strengthens Disaster Management system in the country. Most pertinent sections of this Act include section 6 that explains the functions of local authorities in terms of disaster management, and section 9 that explains how the sources of funding the government use finance the new disaster management projects.	This Act is relevant. The project involves reconstruction and rehabilitation of those who were affected in Sindh by the 2022 floods. The aim of the project is to build back better in the form of disaster resilient houses, considering the potential for any future floods or disasters.
Sindh SDGs Framework, 2021	Based upon its seven pillars, the vision 2025 states, in line with the Sustainable Development Goals, that the government will focus on seven key areas including: 1) developing social and human capital, 2) achieving sustained, indigenous, and inclusive growth, 3) Governance, institutional reforms and modernization of the public sector,	The framework is relevant as it touches upon themes relevant to the project also, particularly pillars 1, 2.and 3
Sindh Sanitation Policy, 2017	Provides a broad framework and policy guidance to the Sindh Government to enhance and support sanitation coverage in the country through the formulation of their sanitation strategies, plans, and programs, at all respective levels for improving the quality of life of the people of Pakistan and the physical environment necessary for a healthy life. The policy envisions creating an open defecation free environment	This policy is relevant as reconstruction on this massive a scale will require mitigation of solid waste through proper disposal.

Table 3.1: National & Provincial Legal Framework

National & Provincial Policies, Rules and Regulations	Description	Project Relevance
	with safe disposal of liquid and solid waste promoting health and hygiene practices in the country.	
Sindh Environment Protection Act, 2014	Comprehensive legislation which provides legislative framework for protection, conservation, rehabilitation and improvement of the environment. It contains concrete action plans and programs for the prevention of pollution and promotes sustainable development.	With the reconstruction efforts focusing on Sindh, the projects fall under the jurisdiction of the Sindh EPA, where the department will be the responsible authority for governing the environmental compliance of the project with local guidelines as necessary.
Sindh Environmental Protection Agency (Environmental Assessment) Regulations, 2021	Defines the categories for different projects, where the type of study/ assessment required (checklist, IEE, EIA) against each category of project is defined to fulfill local legal requirements pertaining to the environment.	The project does not fall in any category listed in Schedules-I, II and III shall not be required to file an EC, IEE or EIA with SEPA. This understanding has been confirmed by SEPA through a formal NOC (Annex 3)
Sindh Solid Waste Management Act, 2021	The Sindh Solid Waste Management Act, 2021 for collection and disposal of all solid waste, to arrange effective delivery of sanitation services, to provide pollution free environment and to deal with other relevant matters.	The Sindh Solid Waste Management Board (SSWMB) is the main agency in charge of solid waste collection, handling, transport, and disposal for the province. Hence, they will ensure that solid waste generated from the project is disposed off properly.
Sindh Cultural Heritage (Preservation) Act, 1994	The cultural heritage laws of Pakistan are uniformly applicable to all categories of sites regardless of their state of preservation and classification as monuments of national or world heritage.	The provision of this Act is also relevant, if any accidental archaeological discoveries may occur during the excavation works for the construction of resilient housing.
Sindh Wildlife Protection, Preservation, Conservation and Management Act, 2020	The Sindh Wildlife Protection, Preservation, Conservation and Management Act was approved in August 2020. The Act was passed to make provisions for protection, conservation, preservation, and sustainable use of wildlife for establishment, management and maintenance of protected areas in the Province of Sindh. The Act introduces the establishment of a Council for the Conservation of Wildlife, and other measures which guarantee and protect the rights and ensure safety of wildlife in the province of Sindh.	Provisions of the Act will be applicable pertaining to the preservation, conservation, and management of wildlife for project activities in or around the areas classified under the Act (e.g. protected areas, etc.).
The Sindh Occupational Safety and Health Act, 2017	The act makes provisions for occupational safety and health conditions at all workplaces in the province for the protection of workers during work.	Applicable as IPs and SPHF will have to ensure that the work being done is in line with the Act and the safety provisions described therein for workers (beneficiaries in the case of this project).
The Sindh Occupational Health and Safety Rules 2019	Defines the need to make provisions for occupational safety and health conditions at all workplaces for the protection of persons at work against risk of injury arising out of the activities at workplace and for the promotion of safe, healthy, and decent working environment adapted to the physical, physiological, and psychological needs of all persons at work and to provide for all matters connected therewith or ancillary thereto.	Applicable as IPs and SPHF will have to ensure that the work being done is in line with the rules and the safety provisions described therein for workers (beneficiaries in the case of this project).

Table 3.1: National & Provincial Legal Framework

National & Provincial Policies, Rules and Regulations	Description	Project Relevance
Sindh Minimum Wages Act, 2015 (Sindh Act No. VIII of 2016)	To provide the regulation of minimum rates of wages and various allowances for different categories of workers employed in certain industrial and commercial undertakings and establishments.	Applicable to the different types of workers identified in the LMP, including direct and contracted (not necessarily the beneficiaries).
The Sindh Prohibition of Employment of Children Act, 2017	Prohibition of Child Employment Act (PCEA) 2017 disallow child labor in Sindh. The PCEA defines a child as a person who has not completed his/her fourteenth year of age, and an adolescent means a person who has completed fourteenth year of age but has not completed eighteenth years of his age. No child shall be employed or permitted to work in any establishment including construction, but an adolescent can be employed or permitted to work under strict guidelines provided in the PCEA and rules. An adolescent shall not be employed in any hazardous work included in the schedule to the PCEA.	Defines the term children, along with adolescent and adult, along with the different types of work they may be involved in. beneficiary driven reconstruction will have to be done as per the provisions of this Act.
The Protection Against Harassment of Women at the Workplace Act, 2010	The Act provides legal protection to women against harassment at the workplace. It focuses on sexual harassment experienced at the workplace by employees and facilitates the transformation of the work environment, so that it is free of sexual harassment, intimidation, and abuse. The law makes it a special crime to use force against a woman, or even threaten to use force, if the intention is to “disturb her modesty”	With women beneficiaries also present and part of the reconstruction process, efforts will be made to ensure that they are not harassed or made to feel any less than male beneficiaries under the project.
The Sindh Local Government (Amendment) Act, 2021	Under the Sindh Local Government Act 2013 (SLGA), Chapter VI, land use planning; implementation of building by-laws; management of environmental and health hazards; food adulteration; provision and maintenance of water supply schemes and public sources of drinking water; and mobilization of communities for the upgrade of local infrastructure (transportation, landscaping, and removal of encroachments) are the responsibilities of municipal corporations/committees. The 2021 amendment served to define municipal corporations and committees, along with establishing a relationship between elected councils and provincial departments working in administrative boundaries.	This Act is applicable as the project’s location and nature of use of public sources falls under the overall jurisdiction of the Local Government Department.
The Land Acquisition Act of 1894	In Pakistan law governing land acquisition is the LAA of 1894 with its successive amendments. The Land administration and acquisition is a provincial subject and in Sindh the LAA 1894 with successive amendments regulates the land acquisition process and enables the provincial governments to acquire private land for public purposes and for companies through the exercise of the right of eminent domain principle. The right to acquire land for public purposes is established when Section 4 of the LAA is triggered. The LAA specifies a systematic approach for acquisition and compensation of land and other properties for development	The land acquisition process under LAA 1894 will not be triggered. The Project will only focus on in-situ reconstruction of flood damaged houses within existing settlements located on communal and/or Government land or previously occupied private owned land earmarked for rural settlement. In case of flood affected settlement requiring relocation, encumbrance free and clear replacement government land on alternate location will be earmarked to encourage ***beneficiary driven voluntary resettlement*** of the affected households. Hence, LAA is

Table 3.1: National & Provincial Legal Framework

National & Provincial Policies, Rules and Regulations	Description	Project Relevance
	projects. It stipulates various sections pertaining to notifications, surveys, acquisition, compensation, and apportionment awards, along with disputes resolution, penalties and exemptions. Surveys for land acquisition are to be disclosed to the displaced persons.	not relevant to this Project.
The Sindh Goth Abad (Housing Scheme) Act of 1987	In Sindh, the said Act empowers the government to allot tenure title on government owned land through grant to the land less households. As per law a land plot measuring two ghuntas[17] i.e. 2172 square feet or 202.34 square meter. The allotment of land plot is subject to recommendation of an allotment committee constituted under the Act ibid for this very purpose.	Based on preliminary assessment, it is noted that the flood affected households mostly lack formal land title. This is why, the GOS is planning to provide secure land tenure titles through grants to the flood affected land less households in settlements on existing locations and/or on replacement location on state land before or after re-construction of flood resilient housing structure. For making such land grants to the households affected by natural disaster (2022 floods), a project specific Resettlement Policy Framework is being finalized that will be followed after approval by the Government.
Sindh Resettlement and Rehabilitation (R&R) Policy 2022 (revised on 30 January 2023)	The Sindh R&R Policy 2022 empowers the Sindh government to address all types of displacement that could be caused by development projects, natural/climate related disasters, and 'non-development project' related anti-encroachment drives (AEDs) or eviction of informal settlers. After its formal adoption, this policy shall apply to all types of displacements. In the case of development projects, this policy will cover both public and private sector projects involving physical and/or economic displacement of people in Sindh.	The R&R policy is designed to compensate for involuntary physical or economical displacement caused by a development project, natural/climate related disaster or anti-encroachment related non-development activities. While the SFERHP is aimed to provide housing and livelihood support grants to flood affectees and support them for reconstruction of flood damaged housing and livelihood restoration. So, the Sindh R&R Policy 2022 is not relevant to the project.

3.2 WB Environmental & Social Framework

As part of the project preparation, environmental and social assessment of proposed project will be carried out in accordance with the WB's ESF. The Environmental and Social Standards (ESSs) as embedded in the ESF are discussed in the table below.

Table 3.2: WB ESS and Relevance

Environmental and Social Standard	Description	Relevance to the Project
ESS1 – Assessment and Management of Environmental and Social Risks and Impacts	This standard sets out the Client's responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through IPF, in order to achieve environmental and social outcomes consistent with the ESF.	ESS1 is relevant. Potential environmental and social risks related to construction of housing units include hazardous waste, environmental pollution; due to project; OHS risks for project beneficiaries; social exclusion; GBV/SEA/SH risks. The ESMF and E&S Screening/related site-specific instruments will be implemented throughout the project to comply with ESS1.

[17] Ghunta is land measuring unit and 1 ghunta land is equal to 1089 square feet or 101.17 square meter.

Table 3.2: WB ESS and Relevance		
Environmental and Social Standard	**Description**	**Relevance to the Project**
Table 3.2: World Bank ESS and Relevance		
Environmental and Social Standard	**Environmental and Social Standard**	**Environmental and Social Standard**
ESS2 – Labor and Working Conditions	ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers fairly and providing safe working conditions. This standard applies to project workers, including full-time, part-time, temporary, seasonal, and migrant workers.	ESS2 is Relevant. The project is expected to involve direct workers as project beneficiaries. The project may create some labor related risks and impacts which include lack of skills and compliance with relevant laws and regulations, unsafe working conditions, and GBV/SEA/SH. To comply with the ESS-2, a Labor Management Procedure (LMP) has been developed.
ESS3 – Resource Efficiency and Pollution Prevention and Management	ESS3 establishes the requirements for resource efficiency and pollution management and prevention during the entire project lifecycle. The objectives of this standard are to enhance the sustainable use of resources, including energy, water, and raw materials. It also aims to promote favorable conditions for human health and the environment by minimizing pollution from project activities, and or minimize generation of waste.	ESS3 is Relevant. Construction activities may generate solid waste, dust issues and soil erosion due to the excavated pits and burrows. Resource efficiency and pollution prevention measures have been included in the ESMF and the ESCOPs to comply with requirements of ESS3.
ESS4 – Community Health and Safety	This standard recognizes that project activities, equipment, and infrastructure can increase community exposure to adverse risks and impacts. The objectives of ESS4 are to avoid or mitigate these adverse impacts on project-affected communities.	ESS4 is Relevant. Reconstruction works may cause temporary disturbances to local communities due to construction material placed, waste, noise, dust, etc. Relevant measures have been included in the ESMF to ensure that community health and safety is adequately protected.
ESS5 -- Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	This standard recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons. Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood), or both. The term “involuntary resettlement” refers to these impacts. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.	***Not Relevant*** ESS5 is not relevant as the Project will work for in-situ reconstruction at existing locations which are the property of the Government, and which do not require any additional land acquisition. Forced evictions, physical and economic displacement, etc. Will not be supported under the project. This means that any areas that are subject to rehabilitation works but that cannot be demonstrated to be “free and clear” of any encumbrances (regardless of the formal ownership status of the land) will be excluded from the Project. This is why, the GOS is providing land titles to those residing on the state lands before providing reconstruction grants under the project. Hence, Land Acquisition has not been budgeted in the project cost. Even if a case arises where land is not suitable for reconstruction (hazardous locations), then relocation of beneficiaries to pre-identified state-owned land on completely voluntary basis will be considered. Even these will be extreme cases. For such cases, a rapid assessment will be carried out and situation-specific mitigations will be developed.

Table 3.2: WB ESS and Relevance		
Environmental and Social Standard	**Description**	**Relevance to the Project**
Table 3.2: World Bank ESS and Relevance		
Environmental and Social Standard	**Environmental and Social Standard**	**Environmental and Social Standard**
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources	This standard recognizes biodiversity conservation and protection, and sustainable management of living natural resources. It gives importance to maintaining the core ecological functions of habitats and wildlife and promotes the sustainable management of primary production and harvesting of living natural resources. The objectives of this standard are to protect and conserve biodiversity and habitats and avoid adverse impacts on biodiversity and habitats as a result of project activities.	Not relevant. The houses will be reconstructed in the same area/location
ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	The objectives of the standard are to ensure that the development process adopts full respect for the rights, dignity, aspirations, identity, culture of traditional local communities, and to avoid adverse impacts on Indigenous Peoples while providing them with sustainable development benefits and opportunities in an accessible, culturally appropriate, and inclusive manner.	Not Relevant – There are no indigenous people in the project area.
ESS8 – Cultural Heritage	ESS8 recognizes the importance of cultural heritage as a valuable source of scientific and historical information, as an economic and social asset for development, and as an integral part of people's cultural identity. This standard sets out measures to protect cultural heritage throughout the lifecycle of the project.	Not Relevant
ESS10 – Stakeholder Engagement and Disclosure	This standard recognizes the importance of open and transparent engagement between the Client and project stakeholders as an essential element of good international practice. The objectives of ESS10 are to establish a systematic approach to stakeholder engagement that will build and maintain constructive relationships, assess the level of stakeholder interest and support for the project, and to enable stakeholders' views to be taken into account in project design and E&S performance. It also provides guidance on promoting and providing means for effective and inclusive stakeholder engagement throughout the life of the project.	ESS10 is relevant as effective stakeholder engagement and information disclosure will be crucial to the project. Stakeholder engagement plan (SEP) is part of the project design and bid document.

3.2 World Bank EHS Guidelines 2007

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). These general EHS guidelines contain Information on cross cutting environmental health and safety issues potentially applicable to all industry sectors. Keeping in view these EHS Guidelines and best practices, the project developed an environmental and social code of practices (ESCOPS) which will be implemented during the project construction activities.

3.3 ADB Safeguard Policies and Requirements[18]

ADB's Safeguard Policy Statement (SPS) 2009 consists of three operational policies on the environment, involuntary resettlement, and indigenous people. The 3 operational policies of SPS are summarized below:

SR-1. Environmental Safeguards: This safeguard is meant to ensure the environmental soundness and sustainability of projects and to support the integration of environmental considerations into the project decision-making process. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects). This policy and its requirements about environmental assessment, baseline, and impact assessment will apply to this project and the IEE(s), in case of Category 'B' sub-projects, will be undertaken to ensure that the project is designed to comply with the policy. A further description of ADB's SR-1 is in Annex 13.

Projects are classified into one of the following environmental categories:

- **Category A**: A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment (EIA) is required.
- **Category B**: A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An IEE is required.
- **Category C**: A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

SR-2. Involuntary Resettlement Safeguard (IR safeguards): This safeguard aims to avoid involuntary resettlement whenever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups. It outlines the project screening and categorization mechanism commensurate with the significance level of adverse involuntary resettlement impacts of a development project likely from acquisition of land or restricted access to the land and resources and income sources.

The SR-2 is triggered in cases/projects involving land acquisition by invoking eminent domain and involuntary resettlement impacts including physical and economic displacement due to lost shelter or productive assets either due to acquisition of land and assets or imposed restrictions to access the assets, natural resources and/or the livelihood sources. The three IR categories under ADB's SR-2 safeguards system are summarized below:

- **IR Category A:** The project involving significant and major IR impacts on 200 or more persons i.e. being physically displaced from housing or losing 10% or more of their productive assets (income generating) due to land acquisition and or restricted access to assets and resources including income and livelihood sources. Based on

[18] There is also another Category as per ADB SPS, 2009 for financial intermediaries, which is defined as follows: Category FI: A proposed project is classified as category FI if it involves investment of ADB funds to or through a financial intermediary (FI).

screening, preparation, implementation and monitoring of resettlement plan is required before project appraisal and prior to start of project works.

- **IR Category B:** The projects involving major IR impacts on less than 200 persons i.e. being physically displaced from housing or losing 10% or more of their productive assets (income generating) due to land acquisition and or restricted access to assets and resources including income and livelihood sources. Based on screening, preparation, implementation, and monitoring of resettlement plan is required before project appraisal and prior to start of project works.
- **IR Category C:** The projects having no IR related impacts whatsoever. In such cases only screening and categorization check lists will be prepared and clearance will be obtained from the ADB. No further action is required.

SR-3. Indigenous Peoples Safeguard: This safeguard looks at designing and implementing projects in a way that fosters full respect for Indigenous Peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the Indigenous Peoples themselves so that they receive culturally appropriate social and economic benefits; do not suffer adverse impacts as a result of projects; and participate actively in projects that affect them. Based on the available information and project experience, no indigenous people live in the project area. This will be subject to screening during the project implementation. The IP screening and categorization criteria is outlined below.

- **IP Category A:** The project having significant direct and indirect impacts on IPs' dignity, customary rights on use and access of land and natural resources, socioeconomic status, cultural and communal integrity, health, education, livelihood and social security status, recognition of indigenous knowledge and vulnerability. Based on IP category, preparation of Indigenous Peoples Plan (IPP) including assessment of social impacts is required at project appraisal stage and its implementation and monitoring is required during execution of project works.
- **IP Category B**: The project that will likely have limited impact on IPs. Based on IP category, preparation of an IPP including assessment of social impacts, is required at project appraisal stage and its implementation and monitoring is required during execution of project works.
- **IP Category C**: The Project has no direct or indirect impact on IPs whatsoever. No further action is required.

Information, Consultation, and Disclosure: Consultation and participation are essential in achieving the ADB safeguard policy objectives. This implies that there is a need for prior and informed consultation with affected persons and communities in the context of safeguard planning and for continued consultation during project implementation to identify and help address safeguard issues that may arise. The consultation process begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle. It provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people and is undertaken in an atmosphere free of intimidation or coercion. Also, it is gender-inclusive and responsive and tailored to the needs of disadvantaged and vulnerable groups and enables the incorporation of all relevant views of affected people and other stakeholders into decision making. ADB requires the borrowers/clients to engage with communities, groups or people affected by proposed projects and with civil society through information disclosure, consultation, and informed participation in a manner commensurate with the risks to and impacts on affected communities. For projects with significant adverse environmental, involuntary resettlement or Indigenous Peoples impacts, ADB project teams will participate in consultation activities to understand the concerns of affected people and ensure that such concerns are addressed in project design and safeguard planning documents.

3.4 Access to Information Policy 2019 (AIP 2019).

The ADB recognizes that sustainable development and eliminating poverty cannot be achieved without transparency and granting access to information about ADB funded projects. The key objective of AIP is to promote stakeholder trust in the ADB and to increase the development impact of ADB activities. It reflects ADB's commitment to transparency, accountability, and participation of stakeholders in ADB-supported development activities. It also recognizes the right of people to seek, receive, and impart information about ADB's operations. The policy applies to documents and information that ADB produces, that ADB requires its borrowers or clients to produce, or that other parties produce and provide to ADB in the course of ADB operations.

The AIP is based on the following principles:

(i) **Clear, timely, and appropriate disclosure**. ADB discloses information about its operations in a clear, timely, and appropriate manner to enhance stakeholders' ability to meaningfully engage with ADB and to promote good governance.

(ii) **Presumption in favor of disclosure**. ADB discloses information unless that information falls within the exceptions to disclosure specified in the policy.

(iii) **Limited exceptions**. Full disclosure of information is not always possible. For example, ADB needs to explore ideas, share information, hold candid discussions, and freely debate ideas internally and with its members or clients. It also needs to consider the special requirements of its non-sovereign operations and clients, protect the right to privacy of its personnel, and safeguard its and its clients' legitimate business interests. The policy provides a limited set of exceptions that balances the rights and interests of various parties. However, ADB reserves the right, under exceptional circumstances, to override the policy exceptions (para 18 of the AIP) or not to disclose information that it would normally disclose (para. 19 of the AIP).

(iv) **Proactive disclosure**. ADB proactively shares its knowledge products and information about its operations in a timely manner to facilitate participation in ADB decision-making. Although the ADB website remains the primary vehicle for proactive disclosure, ADB also uses other appropriate means to disclose and communicate information.

(v) **Sharing of information and ideas**. The AIP includes processes by which people may equally seek, receive, and convey information and ideas about ADB operations. Effective communications and exchange of information and ideas with stakeholders is a vital component of effective and sustainable development.

(vi) **Providing information to project-affected people and other stakeholders**. ADB works closely with its borrowers and clients to ensure two-way communications about ADB projects with project-affected people and other stakeholders. This is done within a timeframe, using relevant languages, and in a way that allows project-affected people and other stakeholders to provide meaningful inputs into project design and implementation.

(vii) **Country and client ownership**. ADB borrowers and clients own the projects that ADB supports or in which the bank invests. Thus, in some cases, the views of borrowers and clients regarding the content and timing of disclosure are considered before documents are disclosed.

(viii) **Clear appeals process**. A clear process to appeal an ADB decision not to disclose requested information is an important part of a meaningful disclosure framework.

(ix) **Continuous monitoring.** ADB monitors the effectiveness of the policy, learns lessons from its successes and shortcomings, and stays abreast of new technologies and practices.

3.5 The ADB's Accountability Mechanism Policy 2013:

The ADB's Accountability Mechanism (ADB's AM) policy provides an independent and effective forum for people adversely affected by ADB-assisted projects to (i) voice their concerns and seek solutions to their problems, and (ii) request a review of the alleged ADB's noncompliance with its operational policies and procedures that may have caused them, or is likely to cause them, direct and material harm. It is designed to (i) increase ADB's development effectiveness and project quality; (ii) be responsive to the concerns of project-affected people and fair to all stakeholders; (iii) reflect the highest professional and technical standards in its staffing and operations; (iv) be as independent and transparent as possible; (v) be cost-effective and efficient; and (vi) be complementary to the other supervision, audit, quality control, and evaluation systems at ADB.

The ADB's AM is a "last resort" mechanism. The ADB endeavors to continue strengthening its project design, implementation, and learning mechanisms to prevent problems and ensure compliance from the outset, and to deal with the legitimate concerns of project affected people at the project and operational levels wherever possible. The AM has two functions — the **"Problem Solving Function"** that is led by the Special Project Facilitator (SPF), who responds to problems of local people affected by ADB-assisted projects through a range of informal and flexible methods and the **"Compliance Review Function"** that is led by the Compliance Review Panel (CRP), which investigates alleged ADB's noncompliance with its operational policies and procedures that has caused, or is likely to cause, direct and material harm to project-affected people.

4 ENVIRONMENTAL AND SOCIO-ECONOMIC BASELINE

This chapter presents an overall profile of the existing environmental and socioeconomic situation in Sindh province as the baseline conditions for project and its ESMF, since the sites for the interventions included in the proposed project are likely to be spread all over the province. This baseline has been prepared based upon secondary literature resources.

4.1 Geography

Geographically Sindh is the third largest province of Pakistan, stretching about 579 km from north to south and 442 km (extreme) or 281 km (average) from east to west, with an area of 140,915 square kilometers (54,408 square miles) of Pakistani territory. Sindh is bounded by the Thar Desert to the east, the Kirthar Mountains to the west, and the Arabian Sea in the south. In the center is a fertile plain around the Indus River.

During the 2022 floods, all the 4 distinct parts of Sindh: (a) Kirthar range on the west; (b) a central alluvial plain bisected by the Indus River; (c) a desert belt in the east; and (d) the Indus delta in the South were affected by the floods.

4.2 Topography

Built-up areas in Sindh are primarily urban and suburban areas that have been developed for residential, commercial and industrial purposes. The most populous cities of Sindh are Karachi, Hyderabad, Sukkur and Larkana. Rangelands are areas of natural grasslands and shrublands that are used for grazing livestock lies in the district of (Karachi, Dadu, Thatta, Tharperkar/Umerkot)[19]. These areas are found in the arid and semi-arid regions of Sindh and are an essential resource for the livestock industry. Bare areas, also known as wastelands, are areas that are devoid of vegetation and are not suitable for cultivation or grazing. These areas are found in the desert regions of Sindh (Thar, Mirpurkhas, Sanghar Khairpur and Sukkur) and are characterized by arid and barren landscapes.

The Central Plains are fertile alluvial plains constituting the valley of the Indus River. They gradually slope downwards from North to South. The plain area is a vast region, rising to a maximum of 100 m above sea level. The lower part of this area, which starts near Hyderabad, is predominantly covered with flood silt. There are a few limestone ridges in this area. One of these ridges is near Rohri (Sukkur in the upper Sindh region), commonly known as the Rohri Cuesta. It extends about 50 km South of Rohri and reaches an average height of about 75 m above sea level. Another such ridge is the Ganjo Takkar, a cuesta of limestone which stretches southward from Hyderabad covering a distance of 25 km. There are also a few depressions and lakes in the Central Plains.

4.3 Temperature

Sindh is divided into three climatic regions: Siro (the upper region, centered on Jacobabad, Kashmore, Kandhkot, Shadadkot, Larkana, Khairpur, Suukur, Ghotki), Wicholo (the middle region, centered onHyderabad, Jamshoro, Dadu, Shaheed Benazirabad, Sangarh, Nausharo Feroze), and Lar (the lower region, centered on Karachi, Thatta & Badin).The province of Sindh is situated in a subtropical region; it is hot in the summer and cold in winter.

The thermal equator passes through upper Sindh, where the air is generally very dry. The highest temperature ever recorded in Sindh was 53.5 °C. Temperatures frequently rise above 46 °C between May and August, and the minimum average temperature of 2 °C occurs during December and January.

[19] https://sindhforests.gov.pk/page-rangelands

Central Sindh's temperatures are generally lower than those of upper Sindh but higher than those of lower Sindh. Dry hot days and cool nights are typical during the summer. Central Sindh's maximum temperature typically reaches 43–44 °C.

Lower Sindh has a damper and humid maritime climate affected by the southwestern winds in summer and northeastern winds in winter, with lower rainfall than Central Sindh. Lower Sindh's maximum temperature reaches about 35–38 °C. Figure 1 below shows the average temperature in Sindh.

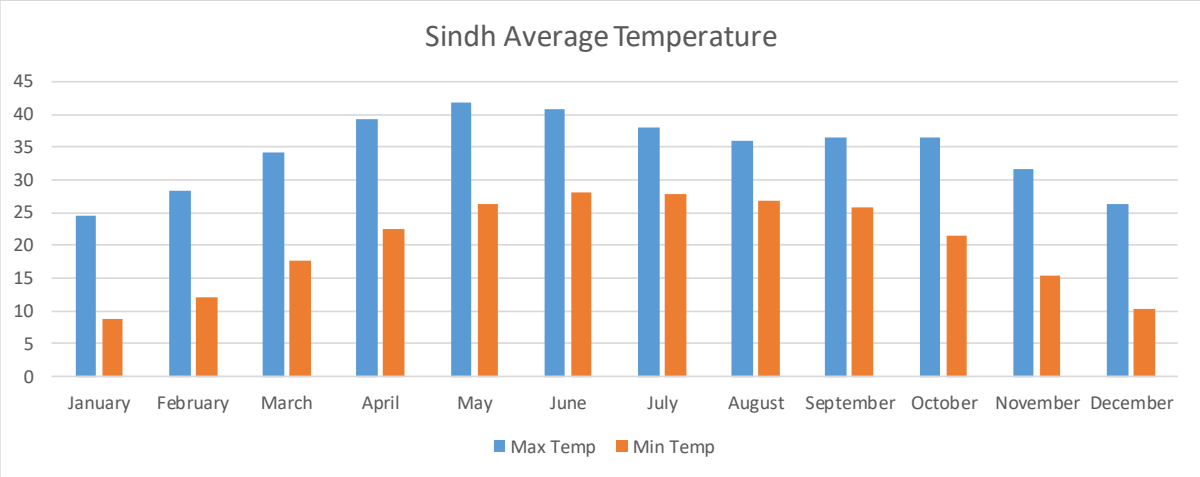


Figure 4.1: Average Temperature in Sindh Source: www.worlddata.info

4.4 Geological Setting

The prevailing geologic conditions in the region are the results of extensive inundation, depositions, coastal movements, and erosion over a long period of time in the geological ages. Most parts of Sindh are covered either by recent alluvium or wind-borne sand. The principal features of geological significance are found in the hilly portions, towards the west of the Indus. Outlying extensions of this hilly tract occur east of the Indus as well, near Sukkur, Hyderabad and Jerruck. In the lower Indus the isolated hills of Nagarparkar on the northern border of the Rann of Kutch belong to quite a different system both geographically and geologically. The community living in the areas of this geological setting were also affected by the 2022 floods.

4.5 Soils

The soil in the plains of Sindh is plastic clay that has been deposited by the Indus. Combined with water it develops into a rich mold and without water it degenerates into a desert. Nearly the entire Indus valley has soil which is extremely friable and easily disintegrated by the flow of water. As a result, the water always contains a large amount of suspended silt.

Salinity is one of the major soil problems confronting agriculture in Sindh. The problem is generally considered to be the result of the canal irrigation system, but countrywide soil surveys have established that most of the existing saline/saline sodic soils are not related to the present irrigation system, and their formation is the consequence of the gradual redistribution of salts already present in the soil.

The minimum construction guidelines of the multi hazard resilient housing also considers various soil conditions over which the reconstruction activities will be taken place such as variable depth of foundation depending on the soil types given in the table below.

Table 4.1: Soil Types		
S. No.	**Districts**	**Soil Types**
1	Thatta, Badin	Clayey and Silty
2	Hyderabad, Sangarh, Dadu, Khairpur, Larkana, Shikarpur Jacobabad	Calcareous, Loamy, Silty, Clayey and Sandy
3	Tharparker, Nawabshah, Mirpur Khas	Sandy, Clayey and Loamy

4.6 Water Resources

Sindh typically receives about 15.76 millimeters (0.62 inches) of precipitation and has 19.72 rainy days (5.4% of the time) annually. The province experienced the heaviest rainfall in the months of July and August with an average annual rainfall of 128.80 mm/yr. However, the impact of climate change on Sindh is evident from floods in the years 2022 and 2010. The recent 2022 flooding occurred as a direct consequence of the extreme monsoon rainfall throughout the summer 2022 season exacerbated by shorter spikes of very heavy rain particularly in August hitting the province.

The primary source of water available to Sindh is the Indus River and its tributaries for its water supply. The river provides water for irrigation, domestic use, and industrial purposes. Water from Indus River is regulated through three Barrages such as Guddu barrage, Sukkur barrage and Kotri barrage. The province has significant groundwater resources, which are mainly used for domestic and industrial purposes although ground water is generally brackish, except near the canals and the Indus. The groundwater is extracted from wells and tube wells, particularly in the arid regions of the province. The province also has several lakes and reservoirs that contribute to the water supply, particularly for domestic and industrial purposes. The major lakes include the Keenjhar Lake, Manchar Lake, Haleji Lake, and the Hadero Lake. Canal water is the primary source of water supply in the project area. The majority of canal water is used for irrigation purposes, then domestic and then industrial purposes. In most areas of Sindh, groundwater needs to be mixed with canal water before it can be effectively utilized for agricultural purposes.

The available groundwater resource in Sindh is about 5-million-acre foot (MAF) and has ample potential for irrigation however, the use of groundwater is comparatively lesser (4.3 billion cubic meter) than surface water because of two primary reasons: firstly, most of the area is lying on saline or brackish water; secondly, canal command areas are being provided with surface irrigation supplies. The river Indus, having an influent behavior, loses water to the underlying aquifer, as it lies on a slight ridge, which slopes away in a lateral direction up to Larkana District. A part of the flow drains towards the desert in the east, whereas the other flows towards the Kirthar Hills. During the harvest season of winter crops, the flow in the river below Sukkur Barrage becomes negligible, so the river starts receiving groundwater, especially from the left bank.

Studies have revealed contamination of groundwater by a variety of contaminants in Sindh province. Some of the water bodies are severely deteriorated by microbial contamination; 53% of the area is affected by the calamitous outcomes of salinity and water-logging; excessive fluoride exceeding the World Health Organization (WHO) and local thresholds has been reported in Nagar Parkar area; and recent physiochemical analyses reveal elevated arsenic concentration in Matiari, Khairpur and Jamshoro districts. Multiple approaches in the past few decades have been employed to address hydro geochemical characterization and groundwater quality assessment for drinking and irrigation purposes. Categorically, the lower Indus plain comprises 14 cultivatable irrigation areas. The situation in the central Sindh, Rohri canal command area is vulnerable to surface and groundwater contamination which

would ultimately risk the portability and agricultural utilization of groundwater.

4.6.1 Hydrology

The river Indus is the major source of surface water which flows in the middle of the province (Hyderabad, Jamshoro, Dadu, Shaheed Benazirabad, Sangarh, Nausharo Feroze), The lower Indus Plain and the irrigated area (Karachi, Thatta & Badin) is the most critical sink for groundwater potential in Sindh province and is recharged by the rich irrigation network and meandering Indus River. The Indus River flows on a ridge and hence feeds the aquifer system alongside. The Indus River has built a distinct distributive type of fluvial system at the downstream of Sindh province, called the Indus fluvial mega-ridge. This fluvial system is in a convex form that shows maximum aggradation near the Indus River and gradually tapers out towards the Indus Plain edges The groundwater level remains high in the Indus Plain aquifer that feeds the Indus River in the Rabi season (October–March) when there is little or no flow as several barrages and dams have been constructed on the Indus River, intensive canals transfer water to 5.45 million hectares of agricultural land. Eventually water flow in the Indus River declines and is supplemented by the aquifer especially in the Rabi season as mentioned above. The groundwater, which is an underutilized resource in the irrigated area due to the fine surface water irrigation system, has resulted in water logging and salinity.

4.6.2 Water Quality

Alarming increase in population is the single important driving force affecting the water sector and causes water scarcity problem in the province. Water pollution is another major problem which is deteriorating the quality of the remaining small portion of water. According to Sindh Environmental Agency “every day almost 500 million gallons of industrial waste and human consumption falls into Arabian Sea”. According to Pakistan Council of Research in Water Resources (PCRWR) 80% of samples from 14 different districts of Sindh are not safe for drinking as well as 78% of water used in hospitals is above standard limits. 90% of water had bacterial contamination and was not fit for drinking in Karachi only. Several studies have been conducted in different cities of Sindh, Pakistan[20] (Table 4.2).

20 https://lupinepublishers.com/environmental-soil-science-journal/fulltext/water-quality-assessment-in-sindh-pakistan-a-review.ID.000156.php

Table 4.2: Water quality in different districts of Sindh

S. No.	Division	Area	pH	EC	Turbidity	Hardness	TSS	TDS	Arsenic	E. Coli
1.	Karachi	Karachi	7.1	402	3.5	123		289		Present
		Malir			13.8	1610		3725	5	Present
2.	Hyderabad	Hyderabad	7.4	584	5	170		37.3	6.51 – 9.98	Present
		Jamshoro	7.41	1764.4	6.31			1064.84	6.66	
		Thatta	7.32		32.73	796	150.3	1099	5	1684.64
		Keenjhar Lake	7.2	637.2	2.317			273.1		3.571
		Badin	7.5	1355	0.37			677		
		Dadu	7.98	2.86	9.73			1832	24.78	22.56
3.	Shaheed Benazir Abad	SBA	8.18			13200		22912	52.3 – 85.2	
		Nausharo Feroze							18.0 – 50.6	
4.	Larkana	Shikarpur	7.3	620		238		695		Not Present
		Jacobabad	7.8	2544		680		1650		Present
5.	Mirpurkhas	Mirpur Khas	7.1	2030		430		1292		Not Present
		Tharparker	7.98	1095.9		264.58		701.43	6	
6.	Sukkur	Sukkur	7.2	648	4.5	239		487	26.0 – 98.2	Not Present
		Kahirpur	7.8	50		13.11		20.5		Not Present
		Rohri	7.41	1570.97	7.82	421.12		993.92	21.95	
		Ghotki	6.9	1858		530		980		Present
WHO			**6.5 – 8.5**	**1562µS/cm**	**<5NTU**	**500mg/L**	**5mg/l**	**1000mg/L**	**10ppb**	**0CFU**
NSDWQ			**6.5 – 8.5**		**<5NTU**	**<500**	**NA**	**<1000**	**50ppb**	**0CFU**

4.7 Health

Country's health system is already battling multiple concurrent health threats including outbreaks of cholera, typhoid, measles, leishmaniasis and HIV. Even before the recent floods, there was a significant disparity in access to health services between rural and urban areas. The current situation will highly likely increase the spread of disease especially if/when response capacities are hindered.

In the floods, around 59 health facilities have been damaged completely and 461 were partially damaged[21]. Access to health facilities, healthcare workers, and essential medicines and medical supplies remain the main health challenges in the flood affected areas. The stagnant water also provided breeding grounds for mosquitoes and subsequent disease spread. From July to early October 2022 over 540,000 malaria cases have been reported in Sindh including diarrheal diseases, dengue fever, measles, and diphtheria[22].Due to disease outbreak there were concerns of high rates of sever acute malnutrition observed in the flood affected areas[23].

4.8 Biological Environment[24]

Sindh province is home to a diverse range of flora and fauna, including several species of mammals, birds, reptiles, and amphibians. However, many of these species are threatened due to habitat loss, poaching, and pollution. The province is also home to several protected areas, including the Kirthar National Park, which are important for biodiversity conservation. The list of protected areas in Sindh is presented in Annex 5.

The variation in climate between Upper and Lower Sindh is not reflected in any difference in the flora of the two zones. The vegetation is characteristic of the edaphic conditions of the region viz. arid climate and sandy and calcareous soil, largely impregnated with salts. The apparent contrast between the verdure of the riverine and irrigated tracts on the one hand, and the hilly and desert tracts on the other; is largely a matter of its intensity and distribution. The dwarf palm, Kher ***(Acacia ruprstris)***, and Lohirro ***(Techoma undulata)*** are typical of the western hill region as are Khip ***(Periploca aphylla)*** and Phog ***(Calligonum polygonides)*** of the eastern sandy desert. In the central valley, the Babbur ***(Acacia nilotica)*** tree is the most dominant and occurs in thick forests along the Indus Banks. The Neem ***(Azadirachta inidica)***, Ber ***(Ziziphus vulgaris)*** or Jujuba, Lai ***(Tamarix Orientalis)***, Kirir (Cappcaris aphyla) and Kandi (Prosopis cineraria) are the more common trees. Mango, date palms, banana, guava, orange, and chiku are the typical fruit bearing trees. The coastal strips and the creeks abound in semi-aquatic and aquatic plants, and inshore deltaic islands have mangrove forests of Timmar ***(Avicennia Marina)*** and Chaunir ***(Ceriops tagal)*** trees. Water lilies grow in abundance in the numerous lakes and ponds, particularly in the Lower Sindh region.

Among the wild animals, the Sareh (Sindh Ibex), Urial or Gadh (wild sheep), and black bear are found in the western rocky range, where the leopard is now rare. The Pirrang (large tiger cat or fishing cat) of the eastern desert plains is also disappearing. Deer lives in the lower rocky plains and in the eastern region, as do the Charakh (striped hyena), jackal, fox porcupine, common gray mongoose, and hedgehog. The Sindh phekari (red lynx or caracal cat) is encountered in some areas. Pharrho (hog deer) and wild boar occur particularly in the central inundation belt. There is a variety of bats, lizards, and reptiles, including the cobra, lundi (viper), and the Peean. Crocodiles are rare and inhabit only the backwaters of Sindh

[21] https://www.acaps.org/sites/acaps/files/products/files/20221130_acaps_rat_briefing_note_on_pakistan_floods.pdf
[22]https://news.un.org/en/story/2022/11/1130082#:~:text=Multiple%20disease%20threats&text=%E2%80%9CFrom%20July%20to%20early%20October,rates%20of%20severe%20acute%20malnutrition.
[23]https://news.un.org/en/story/2022/11/1130082#:~:text=Multiple%20disease%20threats&text=%E2%80%9CFrom%20July%20to%20early%20October,rates%20of%20severe%20acute%20malnutrition.
[24] Sindh Forest & Wildlife Department

and its eastern Nara Canal. Besides a large variety of marine fish, the plurnbeous dolphin, the beaked dolphin, rorqual or blue whale, and a wide variety of skates frequent the areas along the Sindh coast. The pallo (sable fish), though a marine fish, ascends the Indus annually from February to April to spawn and returns to the sea in September. The bulhan (Indus dolphin) breeds in the Rohri-Sukkur section of the river.

4.9 Socioeconomic Environment

4.9.1 Demography

The total population of Sindh Province is recorded as 47,854,510 in Census-2017 as compared to 30,439,893 in Census-1998. The population has increased by 57.21% since Census-1998, with an average annual growth rate of 2.41% during the intercensal period of 1998-2017. The rural population of Sindh Province is 23,021,876, which is 48.11% of total population, whereas the urban population is 24,832,634, with a share of 51.89% of total population of Sindh. Average household size in Sindh is 5.58 persons.25 The district wise population of the SFEHRP districts according to 2017 census is given in the following table.

Table 4.3: District wise population[26]

District	Population 2017	Urban population	Rural population	Male	Female	Transgender	Density/ km²
Badin	1,804,958	390,344	1,414,614	931,177	873,589	192	263.19
Jacobabad	1,007,009	297,218	709,791	514,786	492,061	162	373.24
Kashmore	1,090,336	253,659	836,677	564,663	525,558	115	422.61
Mirpur Khas	1,504,440	434,081	1,070,359	776,146	728,071	223	514.34
Matiari	770,040	182,669	587,371	396,922	373,041	77	543.43
Sanghar	2,049,873	571,719	1,478,154	1,059,051	990,578	244	191.08
Shikarpur	1,233,760	304,441	929,319	635,558	598,130	72	491.15
Sujawal	779,062	85,496	693,566	404,810	374,142	110	88.68
Thatta	982,138	176,476	805,662	510,143	471,958	37	114.6
Tharparkar	1,647,036	132,534	1,514,502	881,018	765,862	156	83.87
TMK	677,098	142,037	535,061	349,122	327,888	88	475.82
Larkana	1,521,786	698,998	822,888	775,934	745,530	322	406.95
Khairpur Mirs'	2,405,190	777,006	1,628,184	1,240,254	1,164,826	110	151.17
Dadu	1,550,390	383,406	1,166,984	795,700	754,480	210	197.10
Kamber Shahdadkot	1,338,035	396,803	929,232	680,567	657,290	178	244.39
Sukkur	1,488,372	720,806	767,566	776,332	711,882	158	288.16
Umerkot	1,073,469	243,537	829,932	556,470	516,841	158	191.42
Jamshoro	993,908	432,621	561,287	523,069	470,702	137	88.71

[25] SMF for Sindh Solar Energy Project. World Bank, 2018. Accessed from: https://ewsdata.rightsindevelopment.org/files/documents/12/WB-P159712_tFsZ4Ac.pdf

[26] https://www.pbs.gov.pk/sites/default/files//population_census/District%20wise%20Sindh%20TABLE%201%202017%20FINAL.pdf

Table 4.3: District wise population[26]

District	Population 2017	Urban population	Rural population	Male	Female	Transgender	Density/ km²
Tando Allahyar	838,527	268,099	570,428	432,697	405,709	121	539.59
Total	**24,755,427**	**6,891,905**	**17,851,577**	**12,804, 419**	**11,948, 138**	**2,870**	

The Project districts represent almost 52% of the total population of the province, but around 77% of the rural population of the province resides in these districts. The districts have 72% or more of their population living in rural areas, with Tharparkar at ~92% rural population topping the chart. Sukkur is the most urban of the Project districts, where 48% of the population resides in urban areas.

4.9.2 Religious Minorities

The majority of the population of the Sindh province is Muslim. Although, 90.34% of the total population declares Islam as their faith, the province has still relatively higher proportion of minorities living in it. The largest community amongst minorities is Hindu, which constitute 6.99% of the total population followed by Scheduled Castes i.e., 1.74% of total population reported in Census-2017.27 In the districts, Umerkot has the highest proportion of Hindu population. Other districts also have significant populations of Hindus and other minority communities.

Table 4.4: District wise population[28]

Districts	Percentage of Hindus
Tharparkar	43.4%
Mirpur khas	38.74%
Badin	23.61%
Tando Muhammad Khan	22.25%
Sanghar	21.79%
Ghotki	6.19%
Kashmore	3.22%
Thatta	3%
Sujawal	2.91%
Jacobabad	2.16%
Shikarpur	1.4%
Larkana	1.35%
Khairpur Mirs'	2.55%
Dadu	0.51%
Kamber Shahdadkot	0.73%
Sukkur	3.44%
Umerkot	46.5%
Jamshoro	38.6%
Tando Allahyar	33.22%

[27] https://www.pbs.gov.pk/sites/default/files//population_census/ncrpcr/PCR%20Sindh.pdf
[28] https://www.pbs.gov.pk/content/district-wise-census-2017-results

4.9.3 Economy

Sindh is one of the richest provinces of Pakistan. Its share in the national gross domestic product (GDP) is estimated at around 30% while its share in the population is around 23%. Pakistan's economy has recently grown at approximately 4.7% per year; Sindh enjoys a similar growth rate and contributes to national growth. The GDP per capita for Sindh is PRs 159,678, above average for the country. A rapidly growing population will affect Sindh's ability to expand the labor force and improve economic performance.[29]

Various reports including the Sindh Growth Strategy by the WB have shown that the per capita income of the province has been declining over time. A recent book titled "The Economy of Modern Sindh: Opportunities Lost and Lessons for the Future" shows that the main reason for weak economic growth and falling per capita income has been declining productivity. It also narrates other factors for the falling productivity such as concentration in low productivity activities such as retail and wholesale trade, therefore depressing the overall productivity, and poor outcome in housing, leading to an adverse impact on the quality of human capital, underemployment, and lower-than-minimum wage in informal activities. Further disaggregating Sindh's economy into urban and rural areas gives more clues to the fall in per capita income over time. Rural Sindh has experienced negative growth while urban Sindh has enjoyed positive growth.

The main reason behind the rural-urban divide is its congruence with the ethnic and linguistic divide. Rural Sindh with 38% literacy rate, 62% immunization rate and 58% enrolment rate at the primary level is worse than many countries in sub-Saharan Africa.

4.9.4 Agriculture

Agriculture is the basis of the economy of Sindh Province. Sindh's agricultural productivity increased substantially after 1961 because of advancement in agriculture research and the use of fertilizers. There are about six research institutions in Sindh working on agriculture. In the SFEHRP districts, Sanghar, Umerkot and Mirpur Khas are suitable for cotton, wheat, sunflower, soyabean, rape, mustard and groundnut. Tando Mohammad Khan, Badin and Thatta districts are suitable for sugarcane and rice crops. Mash and masoor pulses are also suitably grown in these districts. Shikarpur, Larkana, Kamber Shahdadkot and Jacobabad are suitable for growing rice as main crops, and rape and mustard and safflower / sunflower as dobari[30] crops. The rain fed areas of Thar district are suitable for millet and sorghum crops, whereas Guar, Sesamum and caster crops also flourish very well. [31] The major crops of district Kashmore are wheat and rice while other crops (gram, barely, rape and mustard) are also grown in significant amount.[32] Mirpur Khas and Umerkot contribute significantly in agriculture sector of Sindh because its climate is suitable for production of various food items including the Kharif crops of maize, rice, sugarcane, cotton and bajra and Rabi crops of wheat, barley, Gram and barseen.[33] The major crops in Sukkur district during Rabi season are wheat, mustard, jambho, grams and kharif seasons are cotton paddy, corn, sugarcane, jawar, guar, bajra, sesamum in addition to dates production.[34] Matiari and Tando Allahyar contribute significantly in the agriculture sector of Sindh because its climate is suitable for production of various crops, including the Kharif crops of maize, rice, sugarcane, cotton and bajra and Rabi crops of wheat and barley. In addition to these, fruit orchards are abundant

[29] http://www.healthpolicyplus.com/ns/pubs/7194-8353_SindhPakistanRAPIDBooklet.pdf
[30] Dobari crops are crops grown on soil moisture left after paddy harvest, mainly gram, Sindhi matar and rapeseed, but due to the growing problem of weed, wheat crop including the variety locally called Thorhi has become common after rice crop.
[31] https://www.pbs.gov.pk/sites/default/files//population_census/ncrpcr/PCR%20Sindh.pdf
[32] https://info.undp.org/docs/pdc/Documents/PAK/DDMP%20for%20District%20Kashmore%20(New%20Design).pdf
[33] https://reliefweb.int/sites/reliefweb.int/files/resources/PESA-District-Mirpurkhas-Sindh.pdf
[34] https://smeda.org/phocadownload/Sindh/GHOTKI_profile.pdf

in this district. This district is famous all-over Pakistan for its bananas and mangoes.[35] Agriculture is the primary economic activity of districts Khairpur, Date palm, cotton, sugarcane, banana, and strawberry are the main crops. Due to unexpected population growth, housing societies are developed around the main cities of District Khairpur. The main crops of district Dadu are cotton, rape mustard and sunflower. The Rabi crops produced in the district are wheat, barley, gram, pulses, and oil seeds. The Kharif crops are rice, cotton, sugarcane and maize. District Jamshoro is slightly hotter than surrounding areas in summer and has cool winters. The district is rich in minerals like limestone, gravel and marbles. The Kharif crops produced in the district are rice, cotton, sugarcane, bajra and maize. The Rabi crops are wheat, Barley, gram, pulses, and oil seeds.

4.9.5 Access to Safe Drinking Water and Sanitation

According to the 2017 Census, out of all housing units enumerated in the process, 85.58% have reported availability of drinking water as inside the premises. The major source of water for housing units in Sindh is tap water as 44.83% of housing units have access to tap water as an inside source and 3.31% have access to tap water as an outside source. Moreover, 29.76% of housing units used electric/hand pump as an inside source and 3.31% as an outside source. In terms of access to sanitation facilities, 82.01% of housing units in the province have access to latrine facilities. Overall, an improvement in sanitation facilities has been observed in the province as the percentage of housing units with no latrine facility was reduced from 34.08% in the 1998 Census to 17.99%, in the 2017 Census.[36]

4.9.6 Waste Management in Project Areas

In Sindh the largest proportion of the population is living in urban areas as compared to the other provinces of the country. Only 19% of the province has solid waste management (SWM) facilities. A significant level of disparity is found between urban and rural areas regarding waste management condition, ranging between 47% in urban areas to only 1% in the rural areas of Sindh. According to Sindh local government ordinance 2001, SWM is distributed among several agencies and sanitation and solid waste collection and disposal of solid, liquid and industrial and hospital waste to be collected by Taluka municipal administration. The Ordinance directs and empowers the Town municipal administration to collect solid waste and conveyance to transfer the waste to the designated stations, but it does not apply the Town municipal administration (TMA) for treatment and disposal of the solid waste and this responsibility is given to the City District Government Karachi. For the rest of the districts of Sindh, TMA is responsible for collection and disposal of the waste. This is one of the reasons of good SWM practices in Karachi from administration point of view as compared to the other districts of Sindh because in all other districts, TMAs must cover all civic issues including water supply, sanitation and SWM and have limited resources for all three sectors mentioned earlier.[37]

The project is being implemented in rural areas of Sindh where such administrative services of solid waste management and disposal are not being implemented. However, the common practice is that the local population collects solid waste at a designated location which is later disposed of through pit burning.

4.9.7 Road Network and Accessibility

There are wide variations in the availability of infrastructure facilities in the urban and rural areas as well as in different regions of the districts. Whereas availability and condition of

[35] https://success.org.pk/wp-content/uploads/2016/05/Matiari-District-profile.pdf
[36] https://www.pbs.gov.pk/sites/default/files//population_census/ncrpcr/PCR%20Sindh.pdf
[37] Rahman, Muhammad Abdul, "Revisiting Solid Waste Management (SWM) a case study of Pakistan", International Journal of Scientific Footprints. ISSN 2310-4090

roads in the cities is fair, it is quite deplorable in rural areas. As a part of its development agenda, the Government of Sindh is focusing attention on building infrastructure. Construction of roads under various programs has somehow improved access to the most remote locations in these districts.

Table 4.4: Condition of Major Roads in the project districts	
Jacobabad	The only major road passing through this district is N-65, which enters this district from Shikarpur and exits towards Dera Murad Jamali with a total length of 25 km in this district. There exist provincial and local roads connecting the surrounding cities like Sukkur, Shahdad Kot, Larkana and Shikarpur. [38]
Kashmore	The only major road passing through this district is Indus Highway (N-55), which enters in this district from Rajanpur and exits towards Shikarpur having a total length of 73 km in this district. As far as provincial and local roads are concerned, no authenticated data is available, which can provide details of the road lengths and directions. [39]
Matiari	Matiari district covers an area of 1,417 km2 it has only 178 kilometers of good quality roads which are grossly inadequate for the area and its population. A National Highway (N5) connects Matiari with Hyderabad and onwards to Karachi.[40]
Badin	There are 7 main road networks, which connect Badin District to the rest of the country. These routes can be taken in to account in case of emergency or disaster situations. According to the National Highway Authority, a total of 105 road schemes are present in Badin district with the longest being Sujjawal-Badin Road with a length of 77 km. The main points of the road are Badin, Golarchi, Khorwah Chowk and Sujjawal. [41]
Mirpur Khas	Mirpur Khas district covers an area of 2,925 km2 yet it has only 716 km of good quality roads, which are grossly inadequate for the area and its population. A Provincial Highway connects Hyderabad with Mirpur Khas via Sultanabad, Tando Allahyar and Tando Jam. The district headquarter of Mirpur Khas is linked with its taluka Headquarters of Digri and Kot Ghulam Muhammad through metaled roads.[42]
Sanghar	Sanghar district has only 868 km of good quality roads, which are inadequate for the area and its population. Just like most of the Southern districts of Sind, there is no national highway which could connect Sanghar with other major cities of the province, only a metaled road exists, which serves this purpose. The district headquarter of Sanghar is linked with its taluka headquarters of Sinjhoro, Shahdadpur, Tando Adam and Khipro through metaled roads.[43]
Tando Muhammad Khan	The existing road network in Tando Muhammad Khan district is fairly good. Although there is no national highway passing through this district, the provincial highways connect the whole district quite well. The district headquarter of Tando Muhammad Khan is connected with its taluka headquarters of Bulri Shah Karim and Tando Ghulam Hyder through metaled roads.[44]
Shikarpur	Indus Highway (N-55) passes through this district, with a total length of 127 km within the district. The existing road network, in Dadu district, is fairly good. The district headquarter, Dadu, is connected with other taluka headquarters of Johi, Mehar and K.N Shah through metaled roads. Two provincial highways, comprising of a total length of 124 km, are mentioned in official statistics, provided by the government of Sindh. Also, there is a comprehensive network of access roads, comprising of 250 km, interconnecting the whole district. [45]

[38] ESMF of Multi-Sectoral Action for Nutrition (MSAN)
[39] ESMF of Multi-Sectoral Action for Nutrition (MSAN)
[40] https://reliefweb.int/sites/reliefweb.int/files/resources/DP%20Matiari%20Sindh.pdf
[41] ESMF of Multi-Sectoral Action for Nutrition (MSAN)
[42] https://reliefweb.int/sites/reliefweb.int/files/resources/PESA-District-Mirpurkhas-Sindh.pdf
[43] ESMF of Multi-Sectoral Action for Nutrition (MSAN)
[44] Ibid
[45] Ibid

Table 4.4: Condition of Major Roads in the project districts	
Thatta and Sujawal	Thatta city is situated 98 km east of Karachi, on the national highway (N-5). This highway passes through district Thatta for a length of 112 km. Super Highway (M-9), which connects Karachi and Hyderabad, also passes through this district for a length of 40 km. District headquarters of Thatta is connected with other talukas through well-built roads. Although these roads are single but are of good quality. [46]
Ghotki	Ghotki district is spread over an area of 6083 square km. The city is situated near the National Highway along the railway line which crosses from the center of the city. Important means of transport in the district are roads and railways. The district has a total of 300 km of roads, out of which 100 km are un-metaled roads. All talukas are connected with the district headquarters either by roads or by rail.[47]
Tharparkar	Tharparkar district covers an area of 19,638 sq. km yet it has only 743 km of good quality roads, which are inadequate for the area and its population. A Highway connects Tharparkar with other major cities of the province. The district headquarters Mithi is linked with its taluka headquarters of Diplo, Nagarparkar, Chachro through metaled roads. [48]
Larkana	Larkana has a network of roads that is very successful, serving to link Larkana with other neighboring districts. The total length of the roads within the district is 4,179 Kilometers; more than half of it is metal led while the remaining is 'Kachcha'. All these roads were constructed and are maintained by the Works & Services Department. A few important regional road links are: Indus Highway that links Larkana to Jacobabad, Shikarpur and Sukkur in the Northeast and with Dadu and Hyderdabad in the South. Indus Highways meets the junction of Superhighway and National Highway at Jamshoro. Miro Khan road which is about 28 Km long, connects Larkana to Miro Khan. Moenjodaro road connects Larkana to the oldest civilization site of Moenjodaro and is 24 km long. This road is also used to access to the airport located in Moenjodaro Naudero road connects Larkana with Naudero town and is 18 km in length
Jamshoro	Jamshoro district is connected through the main super highway that runs from Karachi. The district is well connected with wide network of road.[49]
Tando Allahyar	District of Tando Allahyar has a road network of 534 km out of the 22,238 km in Sindh[50]
Khairpur Mirs'	Road networks are considered as a vehicle for economic development. The district is well-connected with other districts through good quality roads. Total good quality roads length is 817 kilometers in this district. These roads can be used as evacuation points in flood disasters. Good roads are also helpful in carrying out relief activities. The National Highway (N-5) intersects the city of Khairpur with a total length of 60 km in the district. District headquarter of Khairpur is connected with its taluka headquarters of Gambat, Kingri, Sobodero, Kot Digi, Nara, Thari Mirwah through metalled roads. Two provincial highways comprising a total length of 200 km also passs through the district.
Dadu	Dadu has both canals irrigated and rainfed agricultural areas. The major parts of the districts are well connected with metalled roads with a total road length of more than 1,000 km.
Kamber Shahdadkot	District Kamber-Shahdadkot has a road network of 723 km out of the 22,283 km in Sindh (3.2%).
Sukkur	District Sukkur has a road network of 969 km out of the 22,283 km in Sindh (4.3%)
Umerkot	Most of the areas of district Umerkot are connected with roads except a few areas

[46] Ibid
47 https://info.undp.org/docs/pdc/Documents/PAK/DDMP%20District%20Ghotki%20(New%20Design).pdf
48 ESMF of Multi-Sectoral Action for Nutrition (MSAN)
49 https://pakistanalmanac.com/sindh-jamshoro/
50 https://pakistanalmanac.com/sindh-tando-allahyar/

Table 4.4: Condition of Major Roads in the project districts	
	lying in the desert parts of taluka Umerkot. A total of 1,184 km roads are available in the district to facilitate the district population to easily access to markets and farms.

4.10 Damage Assessment and Validation

The devastating floods of 2022, that displaced millions of people across Sindh, also resulted in damaging more than 2 million houses in Sindh. District-wise details of damages are given in Figure 4.1 below. It translates into a recovery cost of approximately USD 2.8 billion. The GOS priority has been housing, and the reconstruction process has been initiated, employing a beneficiary-driven approach. The beneficiaries are receiving direct financial support in their bank accounts to aid in the reconstruction of their homes.

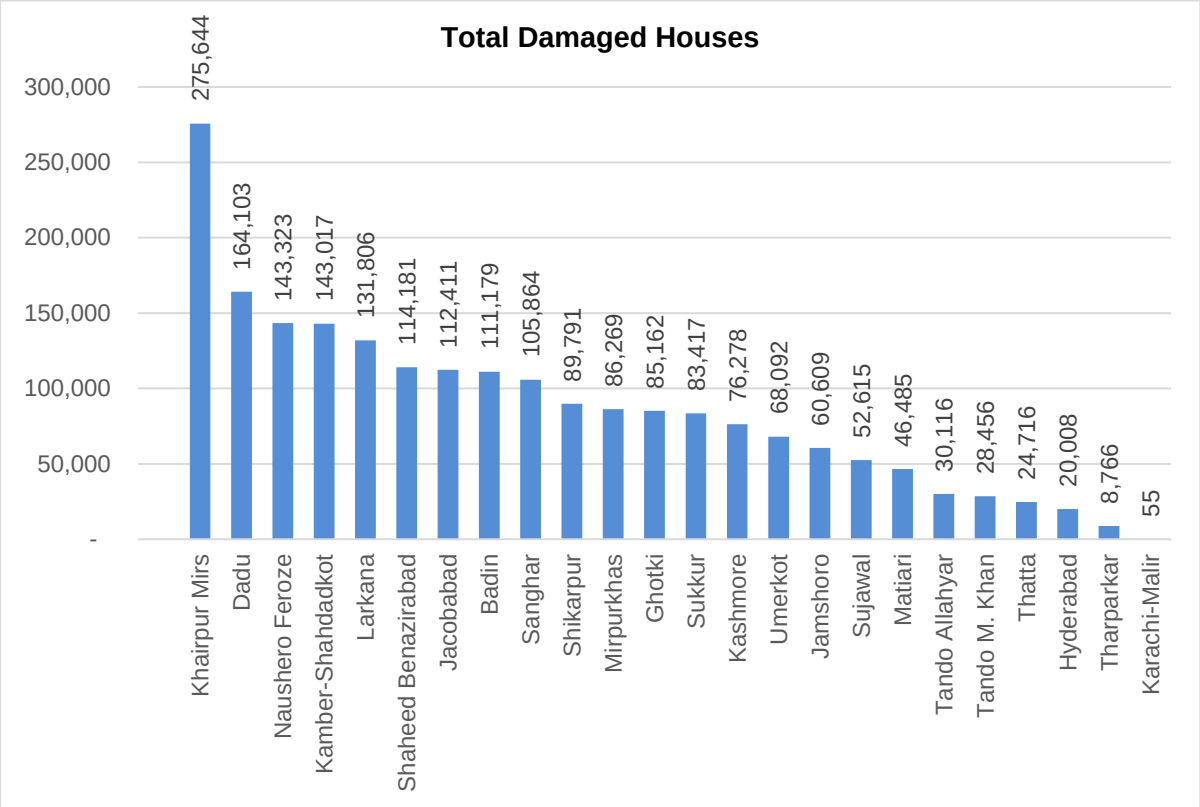


Figure 4.1: Total Damaged Houses

As provided in Chapter 3, more than 70% of the affectees whose houses were completely destroyed were non-titleholders, including informal settlers, landless tenants and others. Many of the affected households are women-headed. As an affirmative action in the overall project design, out of verified 1.36 M houses (latest socio-economic data, still in progress), 37% direct beneficiaries are women in whose name the project support grants will be provided, whereas the total number of women beneficiaries would be close to 50% of the total. To gather the status of land ownership for all the flood affected houses, SPHF in coordination with the district administration have collected the land ownership status of 1.9 million houses as given in Figure 4.2.

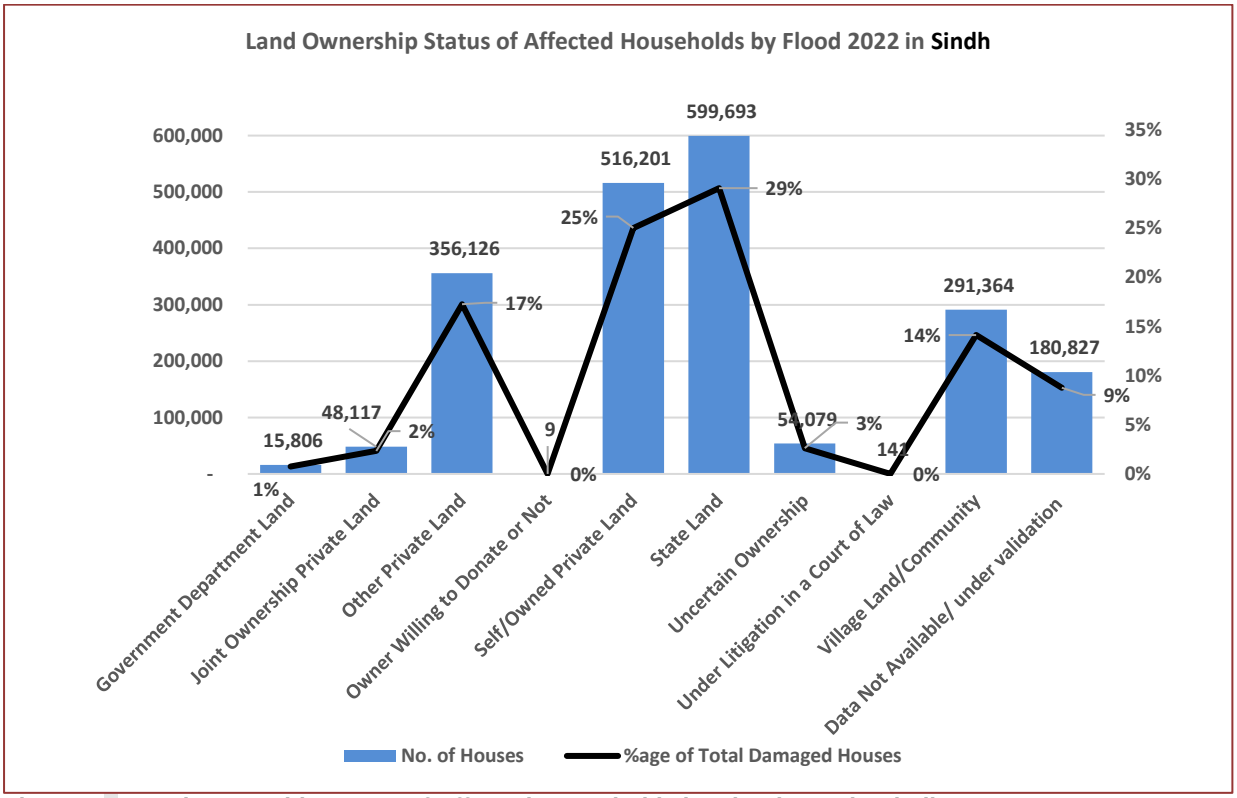


Figure 4.2: Land Ownership Status of Affected Households by Flood 2022 in Sindh

The data in figure 4.2 above reveals that approximately 71% affectees live either on State/village land or on their own private property. Therefore, transferring the land titles to such beneficiaries is not an issue, whereas for the remaining 29%, GoS is working to devise a workable strategy to benefit these people as well.

5 PROJECT-LEVEL ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES.

Houses to be supported under the project will be owner-built, constructed in-situ and/or at alternative nearby locations owned by the beneficiary. The civil works are of small scale, site-specific, and take place at different locations over a large geographical area. Therefore, significant environmental and social impacts are not anticipated. Experience from the initial screening of the project indicates that environmental and social impacts are minor, common, and are site-specific.

A settlement level screening checklist has been developed for the sub-project to identify the impact and implement mitigation measures prior to any reconstruction efforts, where the checklist has been attached in Annex 7. Based on experiences and lessons learnt to date, common project-level environmental and social issues and mitigation measures and district level ESMF consultation program revealed the following:

5.1 Summary of Environmental & Social Positive Impacts

The positive environmental and social impacts include:

- Environmentally friendly resilient housing design with improved indoor air quality;
- Introduction of environmentally friendly Compact Stabilized Earth Brick bricks / Korean Good Bricks;
- Plantation in the settlement where reconstruction is being done to reduce overall Carbon Footprint;
- Use of renewable energy such as solar panel;
- Increased utility of families owning reconstructed houses;
- Reduced exposure to health risks.
- Saving of human lives and housing assets in future disasters;
- Positive effect on local economies and will support the livelihoods of a significant number of people;
- Awareness related to the banking procedures and financial inclusions; and
- Awareness related to GBV/SEA/SH for the locals.

5.2 Construction Phase Environmental Risks and Impacts

The likely project-level environmental impact and mitigation measures for the reconstruction of housing units are provided in the table below.

Table 5.1: Environmental Risks, Impacts & Mitigation Measures

Potential Environmental Risks & Impacts	Mitigation Measures
Generation of Dust	• Material such as cement, sand and gravel will be covered and stored at a designated location. • Water sprinkling will be done on bare soils and on material used for filling on as required basis to minimize the potential for environmental nuisance due to dust. • The frequency of watering will be increased during periods of high risk (e.g., high winds).

Table 5.1: Environmental Risks, Impacts & Mitigation Measures

Potential Environmental Risks & Impacts	Mitigation Measures
Waste generation	• The useable material available with the beneficiary is recorded in plinth level certification form, with percentage of material used. • The waste in the form of rubble and debris will be reused to the maximum extent. • The social technical assistance team (STAT) will guide the beneficiary on the use of such material in terms of its quality along with the usage of same in the structure. • The waste present at construction sites in the form of hazardous material will be disposed of at a designated site identified in each settlement. • Metal scraps and empty cement bags will be collected safely and sold to scrap dealers. • While selecting space for storage of debris materials floodways, natural drainage paths, water bodies, and farmlands will be avoided. • Spoil generated from the excavation of foundations will be used for filling. • Residual construction waste is expected to be generated in different volumes at various stages of construction. Keeping in view the size of the structure, the volume/unit generated is expected to be of small quantity. The residual waste includes empty cement bags and damaged bricks. All the residual waste will be placed in a safer location before its final disposal away from schools, agricultural fields, and children's playing areas. Use of signs indicating hazards due to residual waste will be placed and empty cement bags will be handed over to the vendor and the damaged bricks are crushed and used on the floor. • No disposal of construction wastewater will be done in drinking water sources, irrigation channels, and natural drainage.
Noise generation from construction activities	• Nighttime activity will be avoided to reduce nuisance to the local people. • No heavy machinery will be used for reconstruction activities. • The construction activities will be carried out between 8:00 am to 6:00 pm. • The speed of material carrying vehicle will be kept low, and horns will not be used. while passing through or near the communities.
Risk of water pollution / Ground water contamination due to accidental release or malfunctioning of WASH facilities	• It will be ensured that no solid and liquid waste enters the waterways. All such waste will be collected and disposed of at the designated site. • Septic tank (lined to their full depth) for each WASH facility. • Material will not be stored close to waterways.
Soil contamination	• Materials will be covered with tarpaulin or locally available material. • Soil/reconstruction material will be stored in the designated storage area. • Construction sites including soil piles will be barricaded to avoid material escape, generation of dust.
Soil Erosion and Degradation	• The excavation of foundation will be carefully executed so that a large quantity of spoil will not be generated. The surplus soil, if any, will be disposed at designated location approved by the project. • The filled material will not be obtained from any cultivated fields. • Transportation vehicles will not be repaired in the agricultural field located close to the reconstruction site. • Fast track construction so that the excavated soil can be used at roof level for heat proofing. • Burrow Pit will be dug away from the settlement and will be reinstated to its original condition after the completion of works to minimize erosion and hazard for people and livestock.

Table 5.1: Environmental Risks, Impacts & Mitigation Measures	
Potential Environmental Risks & Impacts	**Mitigation Measures**
Site Clearance/Impact on Flora and Fauna	• Clearing of natural vegetation will be minimized as far as possible during the reconstruction. • Cutting of trees will be strictly prohibited and in case if it is unavoidable then it will be ensured that for each tree cut, 05 new trees will be planted. • Tree plantation plan will be prepared which will include the number and type of species to be planted and cost of plantation and maintenance. • Only local species will be selected for plantation in the project area. • Leaving as much vegetation onsite as possible for as long as possible to prevent erosion from taking place. • Leaving a buffer of vegetation around the perimeter of the site to allow for infiltration of water and to allow for any sediment created onsite to remain onsite and to stop sediment from entering the storm water system. • The trees will be protected with tree protection fencing for the duration of the project, ensuring that the fencing is maintained and not removed until final landscaping takes place. • The project staff will not be allowed to indulge in any hunting or trapping activities.
Occupational Health and Safety	• The construction sites (especially during excavation of foundation) will have protective fencing to avoid any unauthorized entry. • Appropriate PPEs such as safety helmets, vests, gloves, masks and safety shoes will be provided to construction teams. • First aid boxes will be ensured at the sites. • All the occupational incidents, accidents and diseases will be recorded and reported. • Awareness will be provided to the construction teams to strictly follow health and safety procedures. • Code of conduct prepared for labor will be implemented.

5.3 Construction Phase Social Risks and Impacts

The land acquisition including involuntary resettlement due to forced eviction, restricted access to resources and income sources will be strictly avoided during selection of flood affected rural settlement for in-situ reconstruction of flood resilient housing and/or alternate relocation sites for voluntary resettlement of the eligible flood affected households. However, from execution of the project works, some construction related social issues and impacts are envisaged that will be mitigated through implementing impact specific measures. The project-level social impact and mitigation measures for the reconstruction of housing units are provided in the table below.

Table 5.2: Potential Social Impacts, Risks & Mitigation Measures	
Potential Social Impacts and Risk	**Mitigation Measures of Social Impacts and Risks**
• Labor influx and working conditions	• Local labor will be given preference in hiring. • Undertaking signed with the beneficiaries will be enforced for the protection of local communities, GBV, other social issues, flora and fauna and discouraging tree cutting. • A code of conduct will be signed by the workers (I.e. masons) • Good housekeeping practices will be maintained at construction sites. • Awareness to the community and laborers on proper sanitation and hygiene practices. • Bringing weapons to the workplaces will be prohibited.

Table 5.2: Potential Social Impacts, Risks & Mitigation Measures	
Potential Social Impacts and Risk	**Mitigation Measures of Social Impacts and Risks**
Table 5.2: Potential Social Impacts, Risks & Mitigation Measures	
Potential Social Impacts and Risk	**Mitigation Measures of Social Impacts and Risks**
• Community Health and safety	• Communities will be informed and consulted before commencing reconstruction work • Material will be transported through clear pathways. • Material will be stored in the designated location. • Excavated site will properly be barricaded • Speed of the vehicles carrying the construction material will be maintained as 30km/hr.
• GBV including Sexual exploitation and abuse (SEA) or sexual harassment (SH) risks	• Enforcement of approved protection Against Harassment of Women at The Workplace Act 2022. (Amended) . Field staff and district-level in charges will monitor its implementation. • Awareness session will be conducted regularly for community, and workers by engaging skilled trainers • Project staff will receive training on SEA / SH prevention. Skilled trainers will be engaged to raise awareness among project workers about risks, expected behaviors, and consequences of violations. • Codes of conduct will be communicated through training and publicized. GBV specific measures included in the CoC as a separate section. • Targeted communications and awareness to women regarding potential SEA / GBV risks, especially as literacy rates amongst women are lower. This will include organizing consultations during times when women are not busy with their household chores, holding consultations in areas accessible to women • Awareness-raising campaigns on issues of SEA/SH and VAC • A standalone Gender Action Plan (GAP) has been developed for the project, which also includes SEA/SH action plan applicable to the entire project activities. • GBV service providers will be mapped and engaged to address instances of GBV, particularly related to labor influx issues. • The IPs will take appropriate measures to address and resolve issues of harassment, intimidation, and exploitation, with a particular focus on women. • The World Bank Guidelines on SEA / SH will be adopted. • Whenever possible, routes and places frequented by women will be avoided. If unavoidable, alternative routes will be identified, especially along paths commonly used by women, such as routes to local wells or water sources. • Identifying hotspot in project areas where women, children and men occasionally are prone to GBV / SEA / SH. • Service providers will be identified and mapped to address SEA/SH issues. • Enforcement of approved Gender and SEA / SH action plan.
• Land ownership	• Landless beneficiaries will be awarded with the land title ship, as per the process and criteria described in Chapter 2. • Enable and support ownership in the name of women beneficiaries. • Large scale resettlement will not be entertained under the project • No involuntary resettlement under the project • Provisions of ESS-5 and ADB's safeguards requirement-2 will be applied for screening and selection of potential relocation sites in the cases where small scale resettlement on voluntary basis is involved. • The relocation sites involving land acquisition and involuntary

Table 5.2: Potential Social Impacts, Risks & Mitigation Measures	
Potential Social Impacts and Risk	**Mitigation Measures of Social Impacts and Risks**
	resettlement will be strictly avoided and in case of voluntary resettlement; Resettlement Policy & Assessment Checklists attached as Annex-10 will be followed.
Table 5.2: Potential Social Impacts, Risks & Mitigation Measures	
Potential Social Impacts and Risk	**Mitigation Measures of Social Impacts and Risks**
• Child and Forced Labor	• Awareness program on child labor and provincial labor laws • Adherence to the prohibition of child labor and any form of forced labor • Training and capacity building: Provide training and capacity-building programs for project staff, IPs, Social mobilisers and members of VRCs on child protection, and ethical labor practices. This will enhance their understanding of the issue and equip them with the knowledge and skills to identify and prevent child labor within the project. • Grievance mechanism: included in the existing grievance mechanism that allows community members to report any concerns or cases of child labor confidentially. This mechanism should ensure that complaints are properly investigated, and appropriate actions are taken in response. • Beneficiaries and primary suppliers will be made aware of the provincial labor laws and World Bank regulations regarding child/forced labor.
• Exclusion Risks to women, marginalized and disadvantaged group	• A robust selection and re-verification process has been adopted having multiple layers to ensure that no eligible beneficiary is missed • A comprehensive GRM has been developed and will be implemented to ensure timely and effective resolution of any complaints pertaining to exclusion, specially by marginalized people • Proper representation of all groups will be ensured in the CRVs and other relevant project forums • The project SEP identifies marginalized and disadvantaged groups as important stakeholders and establishes the mechanism for meaningful and continued engagement with them. • Support joint ownership, if not complete female ownership, of houses supported through housing grants
• Elite Capture	• All project support will be provided through the personal bank accounts of the identified eligible beneficiaries, thereby ensuring their own control on the amount provided. • The payment will be made in 04 tranches which are tied with actual physical progress of construction, so that the cash grants could not be misappropriated. • The damage assessment and re-verification survey has been designed in a manner so as to ensure that only the genuine beneficiaries are enlisted for the project support. • For landless people residing on private lands, the project will strive to get the land parcels from the landowners through VLD, and transfer the same to the landless beneficiaries, besides providing them with reconstruction support. • The GRM has multiple community representatives at all tiers.
• Resettlement Issues	• The project will mostly adopt in-situ reconstruction, thereby minimizing resettlement requirements • No involuntary resettlement will be carried out under the project. • For the proposed locations to resettle those landless people who are eligible beneficiaries and are to be provided land titles, only previously marked land parcels “declared villages” will be utilized with consent from the resettling community as well as the existing dwellers of the destination locality. • A robust and effective GRM has been developed and implemented.

6 CONSULTATIONS, INFORMATION DISCLOSURE AND GRIEVANCE REDRESS MECHANISM

6.1 Stakeholder Engagement Plan

The WB ESF and the ADB's SPS, 2009 recognizes the importance of effective engagement and meaningful consultations with the project stakeholders including project beneficiary and affected parties, civil society organizations and in line government entities. Open and transparent engagement between the project implementing entities and project stakeholders is an essential element of good international practices on stakeholder engagement, meaningful consultations, and information disclosure. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

The project has prepared a Stakeholder Engagement Plan (SEP) to describe objectives, process and outcome of the stakeholder engagement already carried out during the project preparation and to be carried out during the project implementation – in accordance with the WB ESS 10 and ADB's SPS 2009. The key aspects of the SEP are summarized below.

The WB ESS10 including Communication Policy and ADB's SPS 2009 with Access to Information Policy requires that the borrowers should engage with stakeholders throughout the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design, its implementation and monitoring. The nature, scope and frequency of stakeholder engagement must be proportionate to the nature and scale of the project and its potential risks and impacts.

The SEP recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. Stakeholder engagement is an inclusive process conducted throughout the project life cycle. Where properly designed and implemented, it supports the development of strong, constructive, and responsive relationships that are important for successful management of a project's environmental and social risks.

The overall objective of this SEP is to define a plan of action for stakeholder engagement, including technically and culturally appropriate approaches to public consultation and information disclosure, throughout the entire project cycle. The SEP outlines ways in which the project team will communicate with stakeholders and includes a mechanism by which people can raise concerns, provide feedback, or make complaints about project activities. The involvement of different stakeholders, including the local population, is essential to the success of the project in order to ensure smooth collaboration between project staff and local communities.

This SEP will be reassessed and updated throughout the project life as a living document, where it will:

- Establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties;
- Assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be considered in project implementation design and environmental and social performance;

- Promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them; and
- Ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.

Provide project-affected parties with accessible and inclusive means to raise issues and grievances and allow Borrowers to respond to and manage such grievances.

6.2 Stakeholder Identification and Analysis

For meaningful and substantive engagement, it is necessary to determine who the stakeholders are and understand their needs and expectations for engagement, as well as their priorities and objectives in relation to the Project. This information will then be used to tailor engagement to each type of stakeholder. As part of this process, it is particularly important to understand how each stakeholder may be affected – or perceives they may be affected – so that engagement can be modified accordingly.

Project stakeholders are defined as individuals, groups, or other entities who:

- are impacted or likely to be impacted directly or indirectly, positively, or adversely, by the project (also known as 'affected parties'); and
- may have an interest in the project ('interested parties'). They include individuals or groups whose interests may be affected by the Project and who have the potential to influence the Project outcomes in any way.

Cooperation and negotiation with the stakeholders throughout the project development often also require the identification of persons within the groups who act as legitimate representatives of their respective stakeholder group, i.e., the individuals who have been entrusted by their fellow group members with advocating the groups' interests in the process of engagement with the project. Community representatives may provide helpful insight into the local settings and act as main conduits for dissemination of the Project-related information and as a primary communication/liaison link between the project and targeted communities and their established networks. Verification of stakeholder representatives (i.e., the process of confirming that they are legitimate and genuine advocates of the community they represent) remains an important task in establishing contact with the community stakeholders. The legitimacy of the community representatives can be verified by talking informally to a random sample of community members and heeding their views on who can be representing their interests in the most effective way.

Table 6.1 below outlines the major categories of the project's stakeholders and their relationship to the Project based on the classification system described above. The detailed list of stakeholders identified, as provided in the standalone SEP, remains dynamic and may change during the Project as more information becomes available. The right to modification of this list remains with SPHF or any other entity to which SPHF may delegate this right.

Table 6.1: Project Stakeholders by Category, Class, and Type

SH-CD	Stakeholder Types	Category	Class	Type
S0100	Beneficiaries for housing reconstruction support and affected/non-affected communities of 2022 floods	AFP	Direct	External
S0200	Respective line departments, agencies, ministries of the GoS and at federal levels	AFP	Direct	External
S1500	Organizations, agencies, and other entities that are funding the Project	OIP	Direct	Internal

Table 6.1: Project Stakeholders by Category, Class, and Type

SH-CD	Stakeholder Types	Category	Class	Type
S0300	Other Donor Agencies and IFIs	OIP	Direct	External
S0400	Development agencies/partners, including the UN, INGOs, and NGOs	OIP	Direct	External
S0500	Individual donors, philanthropists, and charities	OIP	Indirect	External
S0600	SPHF core apex, management, and professional staff/Specialist;	AFP	Direct	Internal
S0700	Project staff/experts of Implementing partner's (IP)	AFP	Direct	Internal
S0800	Contractors, suppliers, and other respective market actors	AFP	Direct	External
S1000	Rights-based organizations;	OIP	Indirect	External
S1100	Political and social activists, including local/political leadership	OIP	Indirect	External
S1200	Mainstream and social media	OIP	Indirect	External
S1300	Grievance redress formations, including committees, designated personnel, and services providers	AFP	Direct	Internal
S1400	Any other stakeholder within the purview of Project	OIP	Indirect	External

AFP = Affected Party; OIP = Other Interested Party

6.3 Summary of Stakeholder Consultations Conducted

Stakeholder consultations were carried out from 13th May 2023 to 26th May 2023 with various stakeholders including donors, line departments, and implementing partners, and the potential beneficiary and non-beneficiary community in flood affected areas. This engagement aimed to ascertain institutional needs, inform stakeholders about planned activities, improve project design, create synergies, and enhance the socio-environmental sustainability of the project activities across different components. In addition to that SPHF organized a coordination meeting in April 2023 to share objectives of SPHF and the project with partner organization for their clear understanding of the project.

As a part of the ADB reconnaissance mission in October 2023 and the pre-fact-finding mission during January and February 2024, the ADB project team along with its consultants conducted consultations with the key stakeholders consisting of SPHF, line departments of GoS, project IPs of SPHF, non-governmental organizations as well as other beneficiaries and international financing agencies.

During these two rounds of consultations, there was complete consensus on the urgent need for ADB assistance to support in the ongoing implementation of the project components aimed at rehabilitation and support to the flood affected communities. The need for adequate environmental and social safeguards staff to be present within SPHF as well as at the field level during the construction works was repeatedly emphasized and there was a high level of urgency and anticipation from SPHF and GoS for ADB to provide its financing and support in implementing this most critical and urgent project intervention.

6.4 Summary of Learnings from Consultations

Table 6.2: Consultation Summary

Observations	Recommendations
Banking procedures to open beneficiary accounts are problematic or too detailed/ long for most beneficiaries. Vast differences in how most banks involved handle the opening of bank accounts and disbursements.	It is important to establish direct communication between IPs and bank managers to make opening a bank account for beneficiaries smoother and more efficient. This will help ensure that the account opening, and funds disbursement process is timely and tailored to the beneficiary's unique circumstances, such as limited

Table 6.2: Consultation Summary

Observations	Recommendations
The issue of banks not opening accounts for the beneficiaries is also one that TRDP faces, where these banks have policies limiting the no. of accounts that can be opened in one day (usually 12). The issue, however, has been greatly resolved with the intervention of the District Commissioner through the request of TRDP. Members highlighted that the banks are currently creating issues in creating bank accounts for people, where lists from the IPs and SPHF have already been shared with the banks. Banks request unnecessary issuance of the letters for each individual by the IPs. The opening of accounts, where various issues are encountered, such as biometrics, CNIC issues, etc. When asked about the account opening. The people of the community told us that we face many difficulties while opening the account, such as biometrics, time delay tactics, etc. Banks only open 5-10 accounts every day. Bank opening issues, where banks have imposed age limits on who may open accounts, along with a lengthy list of documents. There were also cases uncovered, such as a widowed woman left behind with her young children who were facing issues with her bank account opening that the president of the VRC was not aware of. When asked about the account opening. The people of the community told us that we face many difficulties while opening the account, such as biometrics, time delay tactics, etc. So far, 30 people have had their accounts opened. However, none have received their cheque books thus far	income and documentation challenges. Furthermore, banks should transparently communicate their account opening quotas to IPs, who can inform their beneficiaries and prepare them for any possible delays. To facilitate efficient coordination between IPs and banks, SPHF should provide capacity-building and training sessions. Ideally, each IP should hold a coordination workshop or meeting with their partnered bank to clarify each entity's responsibilities. Comprehensive standard operating procedures (SOPs) should also be in place to guide both IPs and banks in facilitating beneficiaries.
For people where bank accounts are not opened or are very difficult due to NIC or other issues, special cases are sent to SPHF for consideration. Issues with the bank account opening and timing of disbursements.	The beneficiaries for this Project not only come from low-income backgrounds but have the unique misfortune of losing most of what they own to the floods. Such individuals/families cannot be expected to furnish proper documentation universally. Therefore, IPs should coordinate their efforts with NADRA and the relevant telecom companies to verify identity and facilitate the opening of bank accounts. The IP should make the appropriate preparations considering the context of such matters in each district (relative level of development).
The validation for most houses had been conducted by the IP, where 109 bank accounts had been opened in the village for the beneficiaries, and 41 had received the 1st instalment for reconstruction. Only a few houses were remaining for validation. People in the area did not face issues with opening bank accounts, as the TRDP team had already spoken to the banks and District Commissioners to avoid this issue.	SPHF should document the success of SAFCO and TRDP in actively engaging bank managers and district commissioners for inclusion in the SOPs, thus enabling other IPs in similar situations in the future.

Table 6.2: Consultation Summary	
Observations	**Recommendations**
The people in the area were aware of the process for disbursement and reconstruction, where all beneficiaries have opened their bank accounts.	
Considerable coordination problems among various stakeholders, such as the government, donors, communities and NGOs; When money is sent to beneficiaries, the IPs in charge are not informed, increasing the risk of people misusing the money; The response time from SPHF on numerous issues is too long; The IP mentioned that they have good coordination with other IPs and Government Departments through WhatsApp.	Effective coordination between different entities is essential for the successful execution of the project. This coordination relies on timely sharing of information and support between the involved agencies. For instance, IPs should share verified beneficiary information with all bank branches operating in the village. Additionally, the application's performance should be closely monitored as it can greatly assist each stakeholder involved in this process. On the other hand, one IP (SAFCO) commented that they coordinate well with other stakeholders through WhatsApp, which is a good sign of initiative even though such measures should be common places. Especially given the prevalence of WhatsApp in the Pakistani communication landscape.
Beneficiaries not fully aware of access to funds and other project requirements; SRSO stated that all activities that are started in an area are first described to the community in the form of an open dialogue, after which training is provided	In cases where beneficiaries are unsure about how to access funds or meet project requirements, it is important for implementing partners (IPs) to provide them with clear information. IPs should communicate project activities and equip beneficiaries with the necessary knowledge about funding and other requirements. For instance, IPs should explain the process of opening an account and review essential documents during their sessions. This is a good example for other IPs to follow. they should do and what to do when they don't know what to do.
People from the village belonged to 04 different ethnicities and castes, hence, had their own smaller separate portions in the village.	Implement activities that promote social cohesion and bridge divides among caste groups. Encourage joint community events, cultural celebrations, or development initiatives that involve all beneficiaries, irrespective of their caste. This will help foster a sense of collective identity and promote unity within the community.
Community participation and ownership may be hindered by top-down approaches or a lack of trust and transparency; The villagers mentioned that their village has flooded 03 times since 2010, where their trust and belief in the government and its help has vanished; The IP advised how the districts of Shaheed Benazirabad and Naushero Feroze had historically been devoid of community mobilization efforts and campaigns, leading to the villagers being relatively less welcoming of the IP and slow to warm up to their efforts. This was observed when women were not allowed to be part of the focus group discussions by the villagers; The people in the area also advised their wariness in trusting NGOs as 1-2 had come in the past and done superfluous work on cleaning up the area and then left.	A bottom-up approach may prove more effective in mitigating trust issues and promoting community participation and ownership. These consultations are a good first step in ensuring their voice is heard and their concerns are addressed. Address villagers' wariness in trusting NGOs by demonstrating a long-term commitment to the project and the community. The Project should have a clear sustainability plan that transmits the Project's intention to go beyond immediate relief efforts. To address trust concerns that beneficiaries may have towards IPs and NGOs, these organizations should provide written documentation that encourages accountability to the beneficiaries. Additionally, it is important for IPs and NGOs to be transparent and maintain regular communication with beneficiaries to ensure that they are fully informed of all relevant activities.

6.5 Stakeholder Engagement Methods and Plan

SPHF's approach to stakeholder engagement is based on the principle of inclusive and meaningful participation of all relevant parties. This involves identifying and categorizing

stakeholders accurately, understanding their interests and concerns, and tailoring engagement methods to ensure effective communication and collaboration. Following is a summary of engagement methods and tools to be adopted during the project – the detailed stakeholder engagement plan is provided as a standalone document separately.

6.5.1 Participatory Rural Appraisal (PRA)

Information sharing and dissemination will occur in multiple rounds to address the Project's social and infrastructural impacts, benefits, and stakeholder participation. Stakeholder feedback will be incorporated into the project design as appropriate. The SPHF will thoroughly document all meetings and discussions.

6.5.2 Focus Group Discussion (FGDs)

This tool will help gather information on specific topics, such as infrastructure access, project activities' impact, community participation, and stakeholder opinions. Separate sessions will be held for vulnerable groups, PAPs, women in different project areas, and landlords. Gender consultations will also be conducted to record the views of females and issues related to project implementation. Gender Specialists will organize consultation sessions with local women in the project area to inform them about project activities and gather their views.

6.5.3 Key Informant Interviews (KIIs)

To gather information from different parts of the community, SPHF will select locals who represent various segments. SPHF will ensure that consent is obtained from the villagers and the people these representatives will be speaking on behalf of.

6.5.4 Consultative Sessions

The Social and Environmental team will conduct Stakeholder Consultations with relevant departments, organizations, NGO representatives, policymakers, and local representatives. These departments will include (but are not limited to) Environmental Protection Agency (Sindh), Forest Department, Wildlife Department, Agriculture Department, Revenue Department, Sindh Irrigation Department and Sindh Local Government, Rural Development, PHE & HTP Department, etc.

6.6 Information Disclosure

Initial Stakeholder's Engagement Plan, Environment and Social Commitment Plan and Environment and Social Screening Checklist that have been prepared for this project, have been disclosed on the following website www.sphf.gos.pk. The WB approved ESMF, including Environment and Social Compliance Procedures (ESCOPs and guidelines, screening check lists for Involuntary Resettlement (IR) impacts and to assess social issues related to beneficiary driven volunteer relocation options as well as the Gender Action Plan, Stakeholders Management and Labor Management Plans have been uploaded after the necessary approvals.

The ESMF and related ESCOPs, guidelines as well as E&S screening checklists and monitoring templates have been reviewed and updated by incorporating ADB's safeguards requirements into ADB's component of the project. The SPHF endorsed updated ESMF including ESCOPs and other E&S instruments will be uploaded on the SPHF website (www.sphf.gos.pk) and on the IFIs (WB and ADB) websites.

7 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

This chapter presents the updated ESMF for the proposed project considering 24 districts of Sindh where the in-situ reconstruction will be done.

7.1 Sequence of E&S Activities

The sequence of various activities to be followed for the environmental and social management of the proposed activities.

Table 7.1: Sequence of Activities for E&S Management Framework

Step	Activity	Description of the Activity	Timing/Status	Responsibility
1	Screening	Screening of proposed sub-projects to assess the environmental and social requirements.	Before start of reconstruction activity	Implementing Partners
2	ESCOPs and related E&S Consideration in the project design	Updated ESCOPs and related E&S aspects will be considered for screening of flood affected beneficiary settlement and during the preparation of design of resilient housing structures	During design stage	SPHF
3	Consultations and Disclosure	Meaningful consultations with the stakeholders, including affected communities and project beneficiaries during the screening and project implementation. Disclosure of updated ESMF and E&S screening reports on the SPHF website.	During project implementation. After completion of E&S Screening.	SPHF and IPs
4	Submission of settlement level screening checklist to the World Bank for clearance	Submission of SPHF approved settlement level E&S Checklist to WB and ADB for concurrence.	Before start of construction activity	SPHF
5	Environmental and social provisions for IP's Contracts and the MOU between the beneficiary constructing the house and the government.	Training of staff Implementation of E&S Instruments	Signing of contract Signing of MOU	SPHF and Implementing Partners
6	Implementation of ESMF, Screening Checklist / ECOPs	IP will implement updated ESMF and deliver screening reports, including completed Screening Checklists as outlined in the updated ESCOPs	During site selection and prior to start of construction	Implementing Partners and SPHF
7	Monitoring of EMSF compliance status.	The IPS will conduct day to day monitoring by using updated monitoring checklists and deliver monthly monitoring report for SPHF approval. The SPHF will consolidate quarterly monitoring reports that will be shared with IFIs. i.e. the WB and ADB for approval and disclosure on website.	Throughout project execution period.	Implementing Partner and SPHF. SPHF and IFIs (WB and ADB).

7.2 Screening

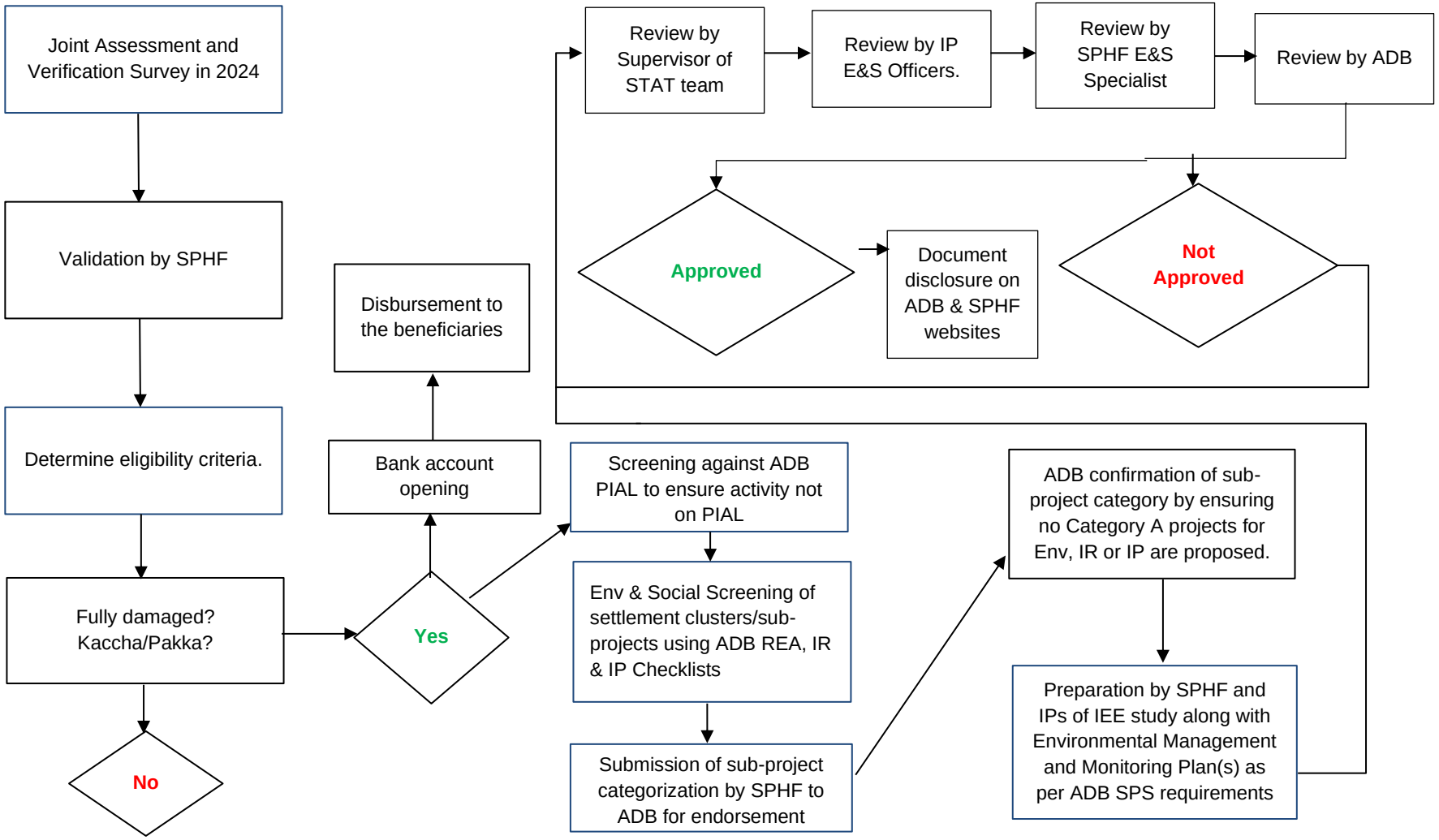
The project has developed a negative and positive list in the ESMF which will be followed during project implementation. Moreover, the ADB funds will not be applied to the activities described on the ADB Prohibited Investment Activities List (PIAL) set forth at Appendix 5 of the ADB's SPS, 2009. The project works will not be implemented in areas which fall under the negative list (negative and positive list is attached as Annexure 6) and ADB's PIAL, attached as Annex 6-A. Environmental and Social Screening checklists have been developed to assess the environmental and social requirements of the sub projects under WB's SFEHRP. Screening will be done as per the procedure below. E&S Screening Checklist is attached as Annex 7.

For the screening of environmental impacts as per ADB SPS, Rapid Environmental Assessment (REA) checklists, provided as Annex 13, will be completed by the IA i.e. SPHF and/or its Implementing Partners (IPs) for each settlement cluster/sub-project and shared with ADB for endorsement. The REA checklists will be completed based on subproject site visits, discussions with local environmental protection authorities and other relevant stakeholders, as necessary.

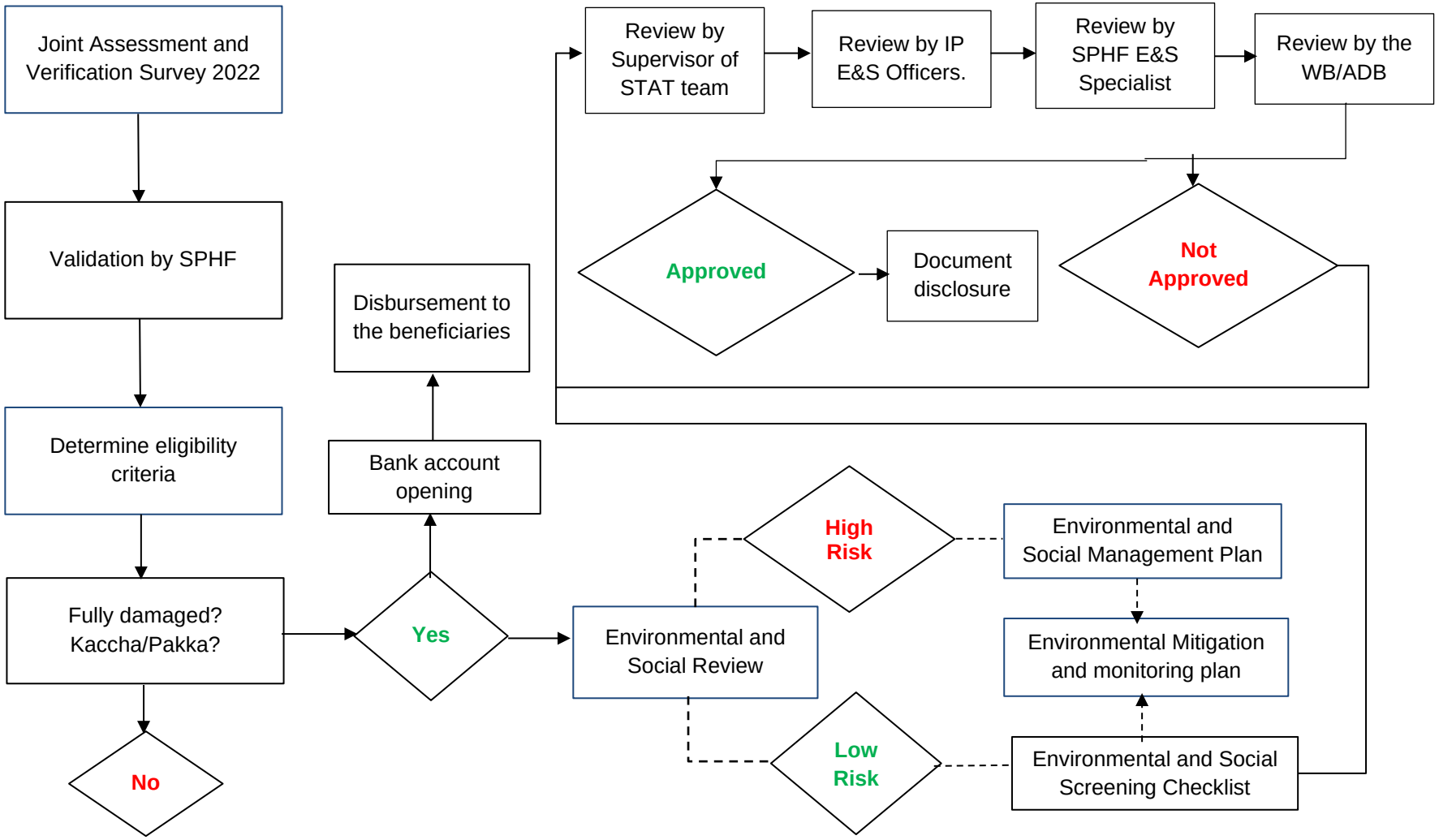
As an next step, multiple IEEs or one umbrella IEE study, as agreed between SPHF and ADB, along with their respective Environmental Management Plans (EMPs) will be prepared in accordance with ADB SPS, 2009 requirements. If existing facilities are involved, an environmental audit shall be conducted, if applicable. The draft IEE will be submitted to ADB by SPHF and will be revised in accordance with ADB comments. The finalized IEE study will be formally submitted by SPHF for disclosure on the ADB website. Also, SPHF will translate the summary of the IEE(s) into local language and post them on the SPHF website, with the full report(s) in local language, within two weeks after ADB's clearance of each document.

To screen for IR and IP impacts and risks likely from ADB funded Output 1, the IR and IP screening checklists included as assessment checklist # 1 in Annex 10 will be used. These screening checklists will be prepared separately for each flood affected settlement prior to providing support for construction of flood damaged housing unit or construction of community infrastructure. Likewise, IR and IP screening checklists will also be prepared and delivered for the identified rural settlement or relocation site selected for beneficiary driven resettlement. This will help to identify and avoid the relocation sites involving land acquisition and the potential involuntary resettlement risks and/or indigenous people issues likely from loss of assets and/or restricted access to the resources and income sources. For the WASH and settlement improvements under Output-1, the safeguards screening and detailed assessment will be conducted during the design of said component and accordingly safeguards screening and related documents will be delivered as a part of project design documents.

ADB Financed Program - E&S Screening and Assessment Framework



WB Financed Program - E&S Screening and Assessment Framework



7.3 Environment & Social Consideration in the Design

Environmental and social codes of practices for the reconstruction of resilient houses under WB's SFEHRP will be integrated into the planning, design, and implementation of reconstruction projects to ensure that they are environmentally responsible, socially inclusive, and contribute to the long-term resilience of affected communities.

7.4 Consultation and disclosure

Stakeholder's consultation will be carried out during all phases of the project in accordance with the requirement and guidance provided in the SEP to improve sub project design and implementation and increase project sustainability and ownership.

The primary stakeholders include the intended beneficiaries and people affected by the proposed activities. The secondary stakeholders will be implementing departments and agencies. Stakeholder participation will be central to design and implementation of the project and provides for information sharing, consultation and collaboration measures.

The Environmental & Social management instruments including ESMF, Labor Management Procedures, Gender Action Plan, Grievance Redressal Mechanism, Stakeholder's Engagement Plan and E&S screening checklists have been disclosed on SPHF's website after approval from the WB.

Furthermore, for processing of the ADB's funding, the environment and social instruments have been reviewed to incorporate the information regarding ADB financed components and to update the E&S requirements to ensure the SPS 2009 requirements will be complied during execution of ADB funded components of the project. The SPHF endorsed revised/updated ESMF and other E&S management instruments i.e. IEE(s) and EMP(s), will be disclosed on SPHF and ADB websites after ADB's approval.

7.5 Submission of Screening Checklist

SPHF acquired formal NOC from SEPA before the start of housing reconstruction activities. The project does not fall into any schedule of EIA/IEE Regulation of Sindh, 2021. The screening checklist filled by the IPs and approved by SPHF for each settlement will be submitted to the WB and/or ADB (as required for the specific components financed by both IFIs) for clearance and approval before the start of reconstruction activity.

7.6 Environmental and Social Provisions for IP's Contracts

SPHF has contracted five IPs (HANDS, SAFCO, SRSO, NRSP and TRDP) to execute the project in different districts of Sindh Province. These implementing partners are responsible to carry out the following tasks:

a. Conducting E&S Screening before start of construction activities;
b. Hiring and deployment of E&S Staff in the field;
c. Supervision of construction activities;
d. Implementation of environmental and social code of practices during construction activities;
e. Training of the beneficiaries related to Environmental, Social & OHS aspects; and
f. Day to day monitoring of the E&S safeguards implementation and compliance status and delivery of progress monitoring reports.

7.7 Implementation of ESMF, Screening Checklist/ESCOPs

The steps to be followed during the construction phase for effective implementation of ESMF

are explained below.

7.7.1 Monitoring

ESMF monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented. The monitoring will be carried out at three levels: the PIU (SPHF) level, IP level and at field level.

At the **SPHF** level, the environment and social specialists will carry out ESMF monitoring to ensure that the mitigation plans are being effectively implemented and will conduct field visits monthly. The updated monitoring checklist for review of ESMF compliance status on a daily and monthly basis is provided in Annexure 8.

Implementing partners will be responsible for monitoring the mitigation measures provided in the ESMF and Screening checklist throughout the project implementation. IPs E&S Officers will conduct weekly site inspections in at least one district and verify that the E&S measures are effectively implemented at working sites and will provide guidance and training to the beneficiaries in case of any noncompliance.

At the local level, the implementation of environmental and social measures will be done by the beneficiary during reconstruction activities with the help of village reconstruction committees (VRCs) and Social-Technical Assistance Teams (STAT/s). These VRCs and STATs will also supervise the work daily.

7.7.2 Reporting

The following reports will be prepared on the implementation of ESMF:

- Daily reporting by the STAT team to the Environmental and Social Officer of implementing partners.
- Monthly environmental & social monitoring reports by the implementing partners ESOs on the status of implementation of environmental, social, health and safety aspects. The monthly reports are to be submitted to SPHF for review and approval.
- Quarterly environmental and social monitoring reports by the SPHF on the status of implementation of environmental, social, health and safety aspects. These quarterly monitoring reports will be submitted to WB and the ADB by SPHF for review and approval. The template for quarterly ESMRs is attached as Annex-11.
- These project reports will also cover the details of incidents, accidents and injuries that occurred during the construction activities. The incident reporting form is provided in Annex-9.
- The SPHF endorsed and IFIs (WB/ADB) approved quarterly monitoring reports will be disclosed by uploading on the websites of SPHF and the IFIs.

7.8 Institutional Arrangements

The institutional arrangement and their assigned duties for the implementation environmental and social procedure are outlined below:

SPHF being the implementation agency, will be overall responsible for implementation of the project in a manner consistent to the provisions outlined in this ESMF and other E&S related instruments. In the SPHF, the Environmental Specialist, Social Specialists and Gender specialist (with strong knowledge and understanding of GBV and SEA/SH) will undertake the safeguards management and monitoring activities and ensure that the plans and procedure mentioned in ESMF and ECOPs are being followed and implemented during the project life cycle.

Implementing Partners (IPs): The IPs are engaged for supporting in implementation, supervision, and monitoring of the reconstruction of flood damaged housing based on multi-

hazard resilient standards and the ESMF provisions. The IPs have hired their own environmental and social officers (ESOs) who will conduct screening of sub-project locations following E&S screening checklists to ensure implementation of ESMF requirements and compliance with ESMF, LMP and GRM. IPs' E&S team will provide necessary support to SPHF E&S team.

Beneficiaries: Beneficiaries will construct their houses as per the resilient housing design and minimum construction guideline provided by the SPHF with the guidance and help of the IPs STATs and village reconstruction committees (VRCs).

Third Party Monitoring Firm: A third-party firm will be hired to monitor compliance including compliance to ESMF and other social and environmental management instruments. This would be done on an annual basis throughout the Project duration. The monitoring system will also be linked to the payment mechanism to ensure effective resolution of issues prior to payments to the beneficiaries.

Besides regular monitoring by implementing partners, the SPHF will engage entities for third party monitoring/validation to ensure that the required outcomes as per acceptable standards have been achieved. The firm will also review and comment on the continuing adequacy of the ESMF system, and any actions that IPs need to take. In addition, innovative supervision strategies such as geo-referenced photographs and videoconferencing are expected to be utilized since the geographic scope of the project is widely spread.

Table 7.2: Implementation Arrangements

Level / Responsible Party	Roles and Responsibilities
SPHF	Ensure that all project activities are well-managed and coordinated. Provide support, oversight and quality control to field staff working on environmental and social risk management. Collect, review, provide quality assurance and no objections to Screening Forms and ESMPs as relevant. Keep documentation of all progress. Oversee overall implementation and monitoring of environmental and social mitigation activities monthly, compile progress reports from local levels/subprojects, and report to the World Bank on a quarterly basis. Train IPs field staff who will be responsible for implementing the ESMF and provide them refresher trainings once in a month.
Implementing Partners (IPs):	Ensure project activities do not fall under the Negative List and ADB's PAIL. Fill out Screening Forms for relevant subproject activities and submit forms to the SPHF. If required, formulate site-specific ESMPs for subproject activities and submit documents to the SPHF, WB and approved it from SEPA. The STATs of implementing partners will monitor the implementation of environmental and social measures daily. The E&S officers (ESO) of IPs will oversee implementation and monitoring of environmental and social mitigation measures on a weekly basis, and report progress and performance to the provincial level on a monthly basis. Provide training to local workers and communities on relevant environmental and social mitigation measures, roles and responsibilities.
Beneficiaries	Construction of houses
Third Party (M E Consultant)	To assess how lives of female beneficiaries have changed post-2022 floods and track their recovery using qualitative and quantitative method. The findings will help evaluate if the project was successful in considering the gendered impacts of floods and post-disaster needs of women when achieving its medium- and longer-term objectives

Table 7.3: Potential Social Impacts, Risks & Mitigation Measures

S.No.	Measures/Activities to be monitored	Monitoring					
		Internal					
		SPHF Level	Freq.	IP Level	Freq.	Beneficiary Level	Freq.
1	**Dust Emissions** Water Sprinkling Covering of spoil piles and soil	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
2	**Waste Generation** Reuse useable waste from the debris. Hazardous waste is being disposed on designated waste site.	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
3	**Water pollution** Material will not be stored close to water ways	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
4	**Soil Contamination, Erosion & Degradation** Covering construction material with tarpaulin or locally available material. Material storage at designated storage site. Barricading of construction sites and soil piles. Burrow pit location away from the settlement Reinstating of burrow pit after completion of works Not obtaining filling material from cultivated fields	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
5	**Site Clearance/Impact on Flora** Prohibit Tree Cutting Tree plantation of local species Protection of vegetation	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
6	**Labor Influx & working conditions** Hiring of local labor Good Housekeeping Checking the undertaking signed and its compliance	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
5	**Occupational Health and Safety** Provision of appropriately stocked first-aid equipment and personal protective equipment (PPE); Availability of first aid boxes at sites Check Training records Check Accidents records.	E&S Staff	Monthly	E&S Staff & STAT	Weekly	Beneficiary /Labor	Daily

Table 7.3: Potential Social Impacts, Risks & Mitigation Measures

S.No.	Measures/Activities to be monitored	Monitoring					
		Internal					
		SPHF Level	Freq.	IP Level	Freq.	Beneficiary Level	Freq.
6	**Use of Child Labor and Forced Labor** No hiring of workers less than 18 years of age Awareness sessions of the community	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
7	**Community Health and Safety** Barricading excavated sites Storage of material in designated locations Clear Pathways	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Daily
8	**Elite Capture and Inclusivity** Inclusiveness of all stakeholders Compliance with selection criteria	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Monthly
9	**Exposure of labor to hazardous construction material** Use of PPEs for disposal of hazardous material Safe working conditions	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Monthly
10	**Sexual Exploitation and abuse or Sexual harassment** Awareness sessions Enforcement of Gender Action Plan Checking of signed Undertaking and ToP	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Monthly
11	**Impacts on Women, Children, and Vulnerable Groups** Women's participation during project preparation and execution Participation of vulnerable groups Impact on women and girls' privacy due to the presence of construction labor	E&S Staff	Monthly	E&S Staff & STAT	Monthly	Beneficiary /Labor	Monthly
12	**Monitoring of social safeguards compliance status and screening of unanticipated non-compliance risks.** IR risks screened by using updated screening check lists and screening reports delivered prior to start of construction activities and as needed during construction. Review of social safeguards compliance status and documentation of ESMF non-compliance risks and unanticipated adverse impacts likely during construction.	E&S Staff	Quarterly	E&S Staff & STAT	Monthly	-	-

7.9 Training and Capacity Building

CAPACITY BUILDING PLAN

Table 7.4: Capacity Building Plan

Sr.	Training	Training Description	Target Audience	Frequency	Responsibility
1.	Environmental and Social Framework	• Training on ten Environmental and Social Standards of the WB and SPS requirement of ADB that the Borrower and the project implementing entities will meet through the project life cycle.	SPHF staff IPs project staff	At inception / Design level	Environmental, Social & Gender Specialists of SPHF
2.	Stakeholder engagement and mapping	• Understand the critical value of stakeholder analysis. • Be able to identify and analyze key stakeholders. • Have practiced roles as both participants and stakeholder mapping "leads". • Understand the importance of and specifically identify ethnic and religious minorities, migrants, individuals with disabilities, transgender individuals, or isolated individuals such as widows, widowers, the elderly, and orphans.	IPs project staff	At inception/ Design level	Environmental, Social & Gender Specialists of SPHF
3.	Community and occupational health and safety aspects	• Types of Safety Hazards and Risk level. • Covers risks arising through construction. • Prevent General Site Hazards, injuries, and disease arising from associated with or occurring during the course of work. • Understanding accidental hazards - where project structural elements could exacerbate them. • Understanding communicable diseases & vector borne diseases, risks & prevention.	IPs project staff / Masons	Design/ Implementation level and refresher trainings will continue throughout implementation	Environmental Specialist of SPHF

Table 7.4: Capacity Building Plan

Sr.	Training	Training Description	Target Audience	Frequency	Responsibility
4	Disaster Risk Reduction, Response and Management and Pollution Prevention and control	• Emergency prevention, preparedness, and response planning for communities. • Understanding of Emergency response procedures · Emergency resources • Understanding pollution, sources, risks and mitigation and prevention measures.	IPs project staff & Beneficiary	Design/ implementation level and refresher trainings will continue throughout implementation	Environmental Specialist of SPHF
5	Monitoring and Reporting	• Understanding of the reporting & monitoring procedures and updating screening and monitoring checklists and templates. Understanding updated monitoring and reporting formats	IPs Project Staff	Design/ implementation level and refresher trainings will continue throughout implementation	Environmental, Social & Gender Specialists of SPHF
6	Waste Management	• Understanding the type of waste and segregation of waste • Impact on human health hand environment • Sources • Disposal of waste	IPs Project Staff	Design/ implementation level and refresher trainings will continue throughout implementation	Environmental Specialist of SPHF
.7	Environmentally Friendly Construction techniques and material	• Understanding of green building technology. • Material & Equipment used for green building	Masons/ IPs staff	Design/ implementation level	Project Engineer / Environmental Specialist of SPHF
8.	E&S Screening Checklist	• Understanding the application of updated screening checklists on settlement level. • Determining the social issues, non-compliance risks and mitigation measures	IPs staff	Design/ implementation level and refresher trainings will continue throughout implementation	Environmental Specialist of SPHF
9	Kobotool Box	• Application of Kobotool Box • Setting up user names • Configuring ODK Collect • Filling the questionnaire online	IPs staff	Design/ implementation level and refresher trainings will continue throughout implementation	Environmental Specialist of SPHF
10	Sensitize SPHF and IPs staff on Gender inclusive and sensitive working environment	• Orientation sessions on SPHF Gender Policy, Harassment and grievance redressal committees	SPHF staff IPs project staff	At inception / design level	Gender Specialist SPHF

Table 7.4: Capacity Building Plan

Sr.	Training	Training Description	Target Audience	Frequency	Responsibility
11	Sensitization and capacity building of project staff on gender and social related safeguards	• Training on Gender Action Planning (GAP) and • Gender mainstreaming concepts. Training of IPs staff on social mobilization, assessment on social aspects and risks to be mitigated. .	IPs project staff	At inception/ design level	Gender Specialist SPHF Social Development Specialist SPHF
12	Sensitize and aware project women beneficiaries on financial assistance for cash grants and the construction of multi hazard resilient houses	• Awareness sessions on opening of bank accounts, payment procedures and financial management for receiving and managing cash grants • Trainings of women beneficiaries on reconstruction guidelines and supervision • Training of women beneficiaries on craft persons (Masons) focusing on installation and maintenance of emerging household technologies (water harvesting and solar solutions)	IPs project staff Project women beneficiaries	At implementation level	Gender Specialist SPHF IPs Gender focal person
13	Sensitization and awareness of women beneficiaries for potential disasters	• Sessions on floods awareness and other disasters for women beneficiaries Organize public awareness campaigns and •	Project women beneficiaries	At implementation level	Gender Specialist SPHF IPs Gender focal person
14	Sensitization and awareness of women beneficiaries on Grievance Redress Mechanism (GRM)	• Training of IPs staff on Grievance Redressal Mechanism • Awareness raising sessions for women beneficiaries on Grievance Redressal Mechanism (GRM)	Project women beneficiaries	At implementation level	Gender Specialist SPHF IPs Gender focal person
15	Sensitization and awareness of women beneficiaries on Gender Based Violence (GBV), Violence against children (VAC), Child marriages and importance of girls Education	• Training of IPs on Gender Based Violence (GBV) • Awareness raising sessions for women beneficiaries on Gender Based Violence (GBV), Child Marriages and importance of girl's education	IPs project staff Project women beneficiaries	At implementation level	Gender Specialist SPHF IPs Gender focal person

8 GRIEVANCE REDRESS MECHANISM

8.1 SFEHRP GRM

The grievance redress mechanism (GRM) developed as part of this ESMF will follow the same mechanism developed for the overall project. The mechanism would include: (i) a recording and reporting system, including grievances registered/recorded in writing; (ii) designated staff with responsibility at various levels of government; and (iii) a specific protocol for handling grievances including the minimum time frame within which different types of grievances should be addressed.

8.2 Responsible Parties and GRM Composition

SPHF will create a dedicated Grievance Redress (GR) cell/desk/officer **at each level** of the operational hierarchy to effectively manage and coordinate efforts for the GRM. Each node will be assigned responsibilities for investigating and resolving complaints received based on the broad categories described in section below. However, a specialized service provider known as the **Grievance Redress Firm (GRF)** is responsible for centrally (Karachi) processing each complaint, the relevant data and the GRM's overall automation.

Overall responsibility for oversight lies with the **SPHF Management,** who will delegate primary responsibility for overseeing the GRM for the SFEHRP to the **SPHF Grievance Redress Committee (SPHF- GRC)** at SPHF. As per the notification dated 16th March 2023 (SPHF – HHRA/02-2023), this Committee comprises:

- the Chief Operating Officer (COO),
- Gender Specialist,
- Social Development Specialist,
- Environmental Specialist and
- Manager HR & Admin at SPHF,

With a total sanctioned strength of five (05). The GRC's duties involve:

- establishing and refining the GRM,
- guiding stakeholders,
- managing grievance reception and registration, - developing response and
- record-keeping protocols and ensuring compliance of each entity within the GRM structure

Modelled on the SPHF-GRC, each IP must maintain a GRC at the Headquarters (HQ) level that carries the mandated responsibility of handling the GRM from the SPHF GRC. This **IP HQ** GRC composition shall reflect that of the SPHF GRC. The only exception will be if an individual holds multiple responsibilities under the abovementioned designations.

District Grievance Redress Department (DGRD)

Furthermore, each IP will establish a **District Grievance Redress Department (DGRD)** for addressing and resolving complaints in coordination and collaboration with the IP HQ GRC. Depending on the district's size and the number of beneficiaries, the IP may assign a DGRD to one or more districts.

Field Grievance Redress Officer (FGRO)

Moreover, each IP must appoint a **Field Grievance Redress Officer (FGRO)** at the field office/taluka level responsible for logging, addressing and investigating complaints in

coordination with the IP DGRO and in collaboration with the **Village Reconstruction Committee (VRC)** at the community level. This VRC may comprise village elders and members of existing Local Service Organizations (LSOs) operating within the jurisdiction of the VRC, including at least two (02) women representatives. The IP may assign an FGRO one or more field office(s)/taluka(s) depending on the scope of that office (area and the number of beneficiaries).

8.3 GRM Management Information System (GMIS)

A grievance redress automation system is a software-based system that helps organizations manage and resolve customer or employee complaints and grievances. It is important to note that GMIS is a parallel system to the manual grievance registers. This duality is necessary in case of a breakdown in digital communications. Nonetheless, the components of such a system may vary depending on the specific needs of the organization, but some common elements are:

- User Interface: This is the system's front end that users interact with. It provides a platform for users to register their complaints, track their complaints, and interact with the system;
- Complaint Management System: This system's core component manages user complaints. It includes complaint registration, tracking, assignment, and resolution features.
- Workflow Automation: This component automates the complaint-handling process by defining workflows and assigning complaints to the right person or team. This ensures that complaints are handled efficiently and promptly.
- Escalation Management: This component manages the escalation of complaints that are not resolved within a specified time frame or are of high priority. It ensures that the right people are notified when a complaint is escalated and handled promptly.
- Analytics and Reporting: This component provides insights into the system's performance by generating reports on various aspects of complaint management. It helps the organization identify improvement areas and track its progress over time.
- Integration: The system may need to integrate with other methods, such as Customer relationship management or Enterprise resource planning to fetch relevant information about the users or employees, their interactions, or the appropriate policies and procedures.
- Security: This component ensures the system is secure and compliant with applicable data protection regulations. It includes user authentication, access control, data encryption, and user activity logging.

Overall, a grievance redress automation system is designed to streamline the complaint-handling process and resolve complaints efficiently and effectively. Furthermore, to cater to the needs of the illiterate population, a significant part of the flood affectees, special attention will be given by the Project. Towards this end, the design of the complaint registration interface will focus on simplicity and ease of use. The following considerations apply:

- **Voice-based User Interface:** Instead of a visual interface, the system could use voice prompts and commands to guide the user through the complaint registration process. The system could also use text-to-speech technology to provide feedback and updates to the user;
- **Simplified Complaint Registration:** The complaint registration process must be simplified and streamlined. The user would only need to provide essential information such as their name, contact information, and the nature of their complaint. The system could use natural language processing to understand the user's complaint and categorize it appropriately.

8.4 GMIS Data Structure

The complete data structure of the GRDB contains 32 unique fields with their respective data types, sizes (in characters), descriptions, and validation checks. The fields in the table cover everything from the GTN, date and time of filing, source of the grievance reporter, type of stakeholder and category of grievance reported, the pathway of the grievance report, and details of the affected property.

Other fields include the detailed description of the grievance, complainant name, contact information, e-mail, and status of the grievance process. Additionally, there are fields for the resolution and follow-up action required, priority level, property owner name and contact, construction contractor, reconstruction phase, supporting documents, investigating, and reviewing officer, and notes on investigation and review.

Furthermore, the data structures are also essential for effectively managing and resolving grievances and ensuring that the GRM operates efficiently and transparently. It provides a standardized format for collecting, organizing, and analyzing grievance data. This facilitates better decision-making, helps identify trends and patterns, and promotes accountability and responsiveness in addressing the concerns of stakeholders.

8.5 Monitoring through the GRM dashboard

A dashboard is necessary for the high-level vigilance of a GRM system because it provides real-time monitoring, displays key performance indicators, visualizes data, can be customized, and promotes collaboration. The dashboard helps the Project management and Donors to assess the performance of the GRM and make timely informed decisions to improve the effectiveness and efficiency of the GRM system. The salient features of the dashboard are:

- **Real-time monitoring:** A dashboard provides real-time monitoring of the performance of the grievance redress system. This allows the management to detect any issues or bottlenecks in the design and take corrective actions as needed;
- **Key Performance Indicators (KPIs):** The dashboard can display key performance indicators (KPIs) such as the number of complaints received, the average time to resolve a complaint, the number of complaints escalated, and the percentage of complaints resolved. These KPIs help the Project management assess the performance of the system and identify areas for improvement;
- **Visualization:** The dashboard provides visual representations of data, such as charts, graphs, and tables, making it easier to understand data and identify trends and patterns;
- **Customization:** The dashboard can display the most relevant data to the management. This allows the Project management to focus on the most important metrics and make data-driven, informed decisions;
- **Collaboration:** The dashboard can be shared with multiple stakeholders, such as the Project management, IPs, contractors, and all other stakeholders mentioned. This approach promotes collaboration and ensures that everyone works towards the same goals.

8.6 Scope and Definition of Grievances

As per the Grievance Redressal Mechanism the following general category of grievances will be within the scope of the project's GRM system:

Table 8.1 Type of Grievances	
GT-CD	**Grievance Types**
G0100	**Project Beneficiary and Eligibility (policy, selection, technical)**
G0101	Affectees are not included in the selection process due to ethnic bias or external influence.
G0102	Loss of identity and property and other relevant documents
G0103	Selection is gender-biased or exhibits a preference for a specific gender.
G0104	Unable to attain identity/property/other relevant documents
G0105	Unfair or biased eligibility criteria
G0106	FA was unfairly dismissed due to disability, gender or poverty.
G0107	Not assessed under initial Joint Survey and Verification (JS&V)
G0108	Not assessed under detailed Damage Assessment & Validation (DA&V)
G0109	The occupant disagrees with the technical assessment of the DA&V team (fully/partially/intact)
G0110	Owner-tenant disputes that interfere with the Project's service delivery
G0200	**Project Implementation & Inspection Regime**
G0201	Non-availability of construction material
G0204	Poor communication between beneficiaries and Project staff
G0205	Poorly designed or inappropriate reconstruction efforts
G0206	Poor-quality reconstruction material
G0207	Problems accessing essential services, such as water and electricity, during the reconstruction process
G0208	Unqualified/inexperienced reconstruction workers
G0300	**Gender equality and equity**
G0301	Gender-based discrimination in housing allocation
G0302	Lack of gender-sensitive housing designs and facilities
G0303	Limited access to information for women regarding the housing project
G0400	**Vulnerable persons and ethnic groups**
G0401	Discrimination against ethnic minorities in housing allocation and service delivery
G0402	Inadequate access to information and services for widows, orphans, and other vulnerable groups
G0403	Inadequate provisions for persons with disabilities and elderly individuals in the housing design
G0500	**Land ownership and property rights**
G0501	Dispute of HH/Property ownership and use rights
G0600	**Environmental and Social Concerns**
G0601	Reconstruction causes environmental damage / may cause ecological harm.
G0700	**Health and safety concerns**
G0701	A contractor using toxic building materials
G0702	Failure to meet construction quality standards
G0800	**Disbursement and financial transaction issues**
G0801	Delayed funds disbursement to IP
G0802	Delayed funds disbursement to Payment Partners
G0803	Funds delayed or not available with Ips
G0804	Payment for construction materials not received.
G0805	Promised payment not received or delayed
G0806	Labour charges not paid or received.
G0807	The process for obtaining compensation is overly complicated.
G0808	Compensation is inadequate
G0900	**Communication and media issues**
G0901	Inadequate public awareness campaigns about the housing project, including its goals, objectives, and expected outcomes
G0902	Limited availability of information about the housing project through local media and

Table 8.1 Type of Grievances	
GT-CD	**Grievance Types**
	communication channels
G0903	Poor communication with affected communities regarding the housing project, including a lack of community consultations and participation
G1000	**Local/contextual/political issues**
G1001	Insufficient participation of local communities in project planning and decision-making, leading to a lack of community ownership
G1002	Lack of transparency in housing allocation and selection processes
G1003	Political interference in housing project decisions and resource allocation
G1004	Required labour unavailable or is too expensive
G1100	**Any other grievance/complaints not listed above.**

As part of the GRM, stakeholders or their representatives (grievance reporters) may communicate their grievances verbally or in writing using the appropriate communication channels of GRM document. However, given this Project's scale and potential impact on the affected communities, grievances may come from several official and unofficial channels. Whatever the case, all persons responsible for implementing the GRM (must record grievances expressed through appropriate channels, either officially or unofficially, into the GMIS grievance redress web portal upon receiving them. The system will disallow the entry of complaints that do not carry adequate contact information (i.e., complete phone number, e-mail address, and mailing address) unless the reporter wishes to remain anonymous. However, in such cases, the grievance reporter must provide locational information to enable authentication and follow-up for further details on required data fields. The VRC may maintain a physical register, called a Grievance Log until they can either make the entry themselves or contact the relevant FGRO. Once entered, the system will auto-generate a unique Grievance Token Number (GTN) for each grievance record received. The system will automatically transmit this GTN and an acknowledgement to the grievance reporter on the communication medium stated at entry.

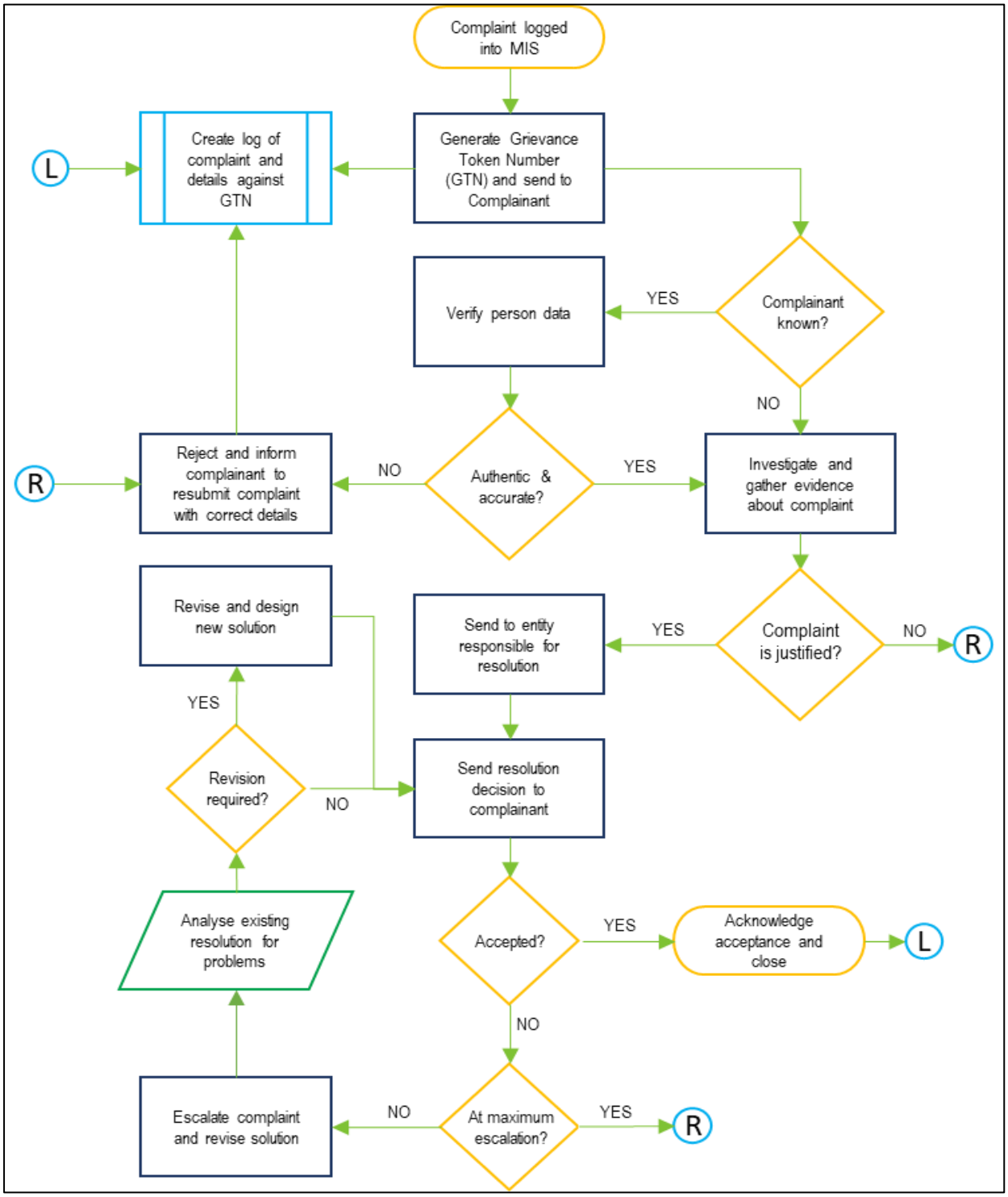


Figure 8.1: GRM Process Flow Diagram

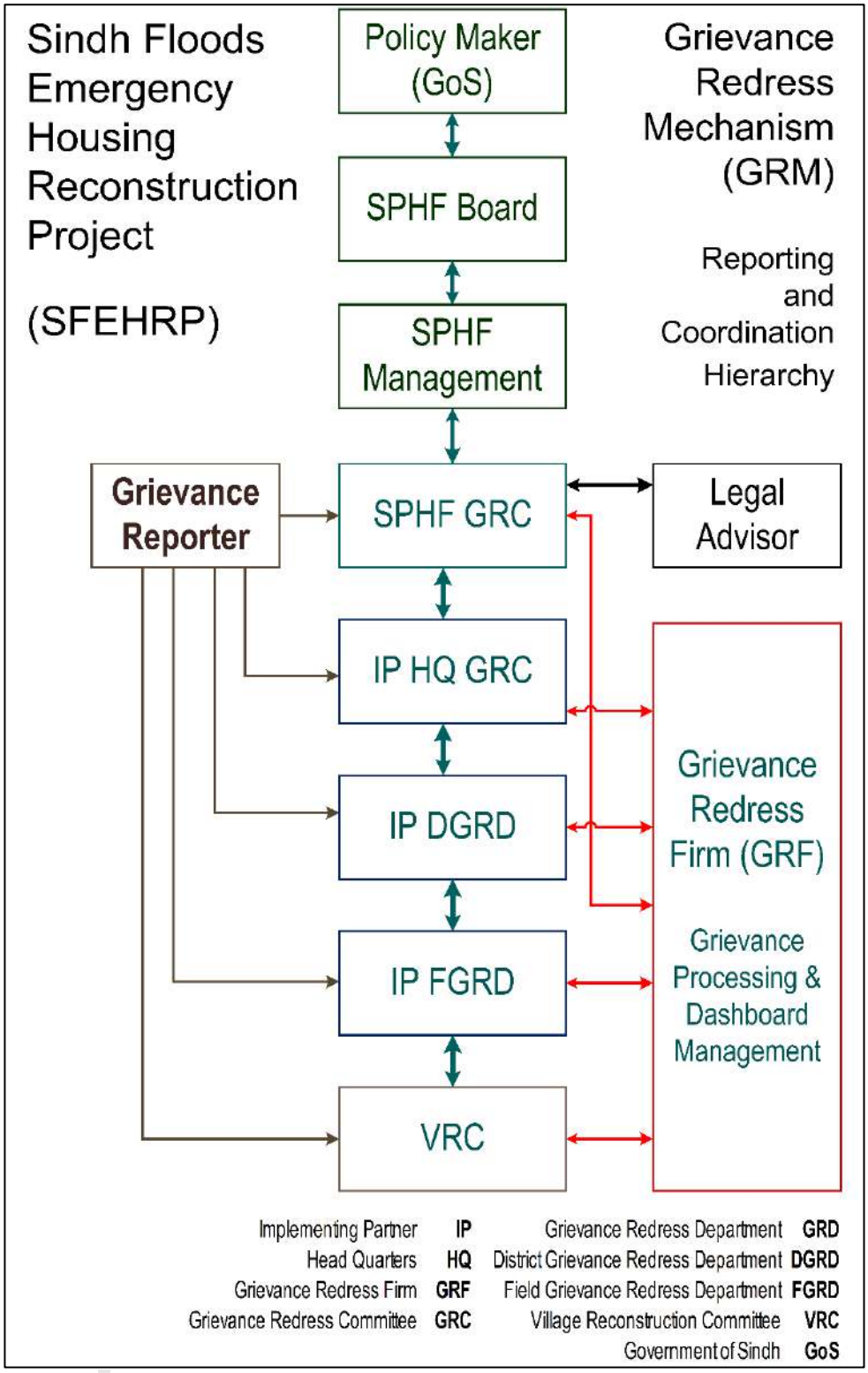


Figure 8.2: Grievance Reporting and Coordination Hierarchy

8.7 Handling SEA/SH and VAC Issues

The project will be particularly sensitive to GBV and SEA/SH issues given that its key stakeholders include marginalized communities, whose women and children are particularly vulnerable to abuse. The SPHF and IP staff responsible for receiving complaints will be provided training on handling complaints regarding Gender Based Violence (GBV), Violence against Children (VAC) and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) from a certified and reputable organization/firm focusing on issues of GBV, SEA/SH and VAC. The project will also draw up a list of established service providers who can provide support to GBV, SEA/SH and VAC survivors and all relevant cases will be referred accordingly.

For SEA/SH and GBV-related matters, the SPHF will also sensitize and provide awareness to beneficiaries and share the mapping along with the name and contact details of GBV and SEA/SH service providers to women beneficiaries and the designated focal persons of IPs will share the lists with them.

9 ESTIMATED BUDGET for WB FINANCED COMPONENT

This chapter presents the cost of ESMF implementation for the WB financed component, which have been included in the overall project budget: The estimated budget for the ADB financed component will be ready once the project locations along with settlement sizes and associated scale and scopes of work have been confirmed.

Table 9.1: Estimated Budget

Activity / Cost Item	Quantity	Unit cost	Total PKR
Training cost for IPs staff	10	150,000	1,500,000
**Provisions of PPEs to beneficiaries (helmet, vest, gloves, shoes)	92,105	2000	184,210,000
** The construction will be in phases as well as not all beneficiaries will start reconstruction activity in a single settlement at one time. Therefore, 5 sets of PPEs/settlement will be provided which will be used by other beneficiaries as well. No. of beneficiaries (WB Funded) = **350,000** No of districts = **19** No of settlements = 350,000/19 = **18,421** 5 sets of PPEs/ settlement = 18,421 x 5 = **92,105** Cost of 1 set of PPEs (PKR) = **2000/-** Total cost of PPEs (PKR) = **184,210,000/-**			
a) TOTAL (PKR)			**187,110,000**
Consultancy charges for: to identify the potential risks and practices in the communities about sexual exploitation and abuse including child abuse in the project areas (development of tools and field visits)	01	-	Rs: 1,500,0000 (Lum sum)
Development of training module on SEAH/SH	01		500,000
Training of project staff (SPHF and IPs) on SEA/SH	02 workshops	-	1,500,000
Development & and printing of awareness-raising material	-	-	1,000,000
Coordination meetings with other relevant service providers for referral pathways	5	20,000	100000
b) Total Cost of SEA/SH action plan			**3,700,000**
Total cost of ESMF (a + b)			**190,810,000**

Annex 1: Environment and Social Codes of Practice for Reconstruction of Resilient Housing

Environment and Social Codes of Practice for Reconstruction of Resilient Housing

Sindh Peoples Housing for Flood Affectees

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ABBREVIATIONS

ADB	Asian Development Bank
CEO	Chief Executive Officer
CFO	Chief Financing Officer
COO	Chief Operating Officer
ES	Environmental and Social
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standard
GRM	Grievance Redressal Mechanism
IPs	Implementing Partners
IPF	Investment Project Financing
MIS	Management Information System
PDNA	Post-Disaster Needs Assessment
SFEHRP	Sindh Flood Emergency Housing Reconstruction Project
SOPs	Standard Operating Procedures
SPHF	Sindh Peoples Housing for Flood Affectees
STAT(s)	Socio-Technical Assessment Teams

1.0 Background

Pakistan experienced heavy monsoon rains between June and September 2022, which have severely affected millions of households, mainly in Sindh and Baluchistan. Around 33 million people have been displaced and more than 13,000 kilometers of roads destroyed. The flooding has damaged 2.2 million houses, flooded around 9.4 million acres of crops, and killed an estimated 1.2 million livestock, adversely affecting rural livelihoods. Preliminary estimates suggest that as a direct consequence of the floods, the national poverty rate may increase by up to 4.0 percentage points, potentially pushing around 9 million people into poverty. The recently completed Post-Disaster Needs Assessment (PDNA) estimates total damages to be US$14.9 billion, while total economic losses reached about US$15.2 billion. Estimated needs for rehabilitation and reconstruction is at US$16.3 billion, not including new investments beyond the affected areas to strengthen Pakistan's resilience to future shocks.[51]

2.0 The Project

With the support of the WB and the ADB, Government of Sindh through SPHF (a public sector section 42 company) is implementing 'Sindh Flood Emergency Housing Reconstruction Project (SFEHRP). Under the project around 2.1 million fully destroyed and partially damaged houses are planned to be reconstructed or retrofitted in 24 flood affected Districts of Sindh. Out of total affected housing units, re-construction of 350,000 is supported by the WB and re-construction of other 250,000 housing units is supported by the ADB.

The project is fully operationalized with fast-track process by the World Bank due to the emergency nature for provision of housing to the affected population of 2022 floods. The project is being prepared and implemented according to Paragraph 12 of Section III of the Bank Policy on Investment Project Financing (IPF), which allows for certain exceptions to the IPF policy requirements, including deferral of ESF requirements, if the Bank deems the recipient to be in urgent need of assistance because of a disaster or experiences capacity constraints because of fragility or specific vulnerabilities.

The reconstruction of houses is anticipated to generate moderate environmental and social (ES) consequences. To screen, assess and mitigate potential adverse ES impacts, the WB's ESF as well as the ADB's SPS 2009 along with federal and provincial governments' environmental and social legislative framework will be applied. As the specific project locations in flood-prone areas are not fully identified and determined, an ESMF will be required to screen and assess the site-specific adverse E&S impacts during execution of the project. The ESMF will encompass a comprehensive approach to managing ES risks and impacts, incorporating relevant national and provincial policies and legislations, as well as World Bank and ADB's Environmental and Social Safeguard standards. This framework will include a mitigation plan incorporating detailed E&S screening check lists and preparation of required E&S management procedures and plans including construction guidelines, Standard Operating Procedures (SOPs) for construction, Labor Management Procedures, a Resettlement Framework, a Stakeholder Engagement Plan, and Grievance Redressal Mechanisms. The implementation of the ESMF will be legal and contractual binding for the client throughout the project to ensure appropriate management of environmental, social, health, and safety (ESHS) risks and impacts.

The ES Codes of Practice (ESCOP) for reconstruction of resilient houses has been prepared and updated as a risk management instrument. The updated ESCOP will serve as minimum standards during the reconstruction phase of the project, addressing potential environmental and social impacts and will be made part of the ESMF.

The project has developed a comprehensive monitoring and evaluation system (MIS Based)

[51] Government of Pakistan. 2022. "Pakistan Floods 2022: Post-Disaster Needs Assessment. Main Report" Ministry of Planning Development & Special Initiatives.

to monitor all the project activities along with assurance of compliances including safeguards. Furthermore, an Independent Validators has been engaged for sample-based review and validate the design and construction of the housing unit assuring maximum transparency. Whereas the hiring process has been commenced for recruiting a 3rd Party Monitoring and Evaluation Consultant/Firm to review the E&S compliance status, document non-compliance risks and suggest corrective measures wherever required.

3.0 Environmental and Social Codes of Practice for Reconstruction of Resilient Houses

Environmental and social codes of practices for the reconstruction of resilient houses under SFEHRP should prioritize sustainability, community engagement, social equity, labor and human rights, health and safety, cultural heritage, and access to services. These codes of practices should be integrated into the planning, design, and implementation of reconstruction projects to ensure that they are environmentally responsible, socially inclusive, and contribute to the long-term resilience of affected communities.

The SFEHRP involves neighborhood-wide infrastructure, even though the scale of development is not likely to lead to high environmental tangible involuntary resettlement risks. Adverse risks and impacts are likely to be short term and primarily related to the reconstruction phase of beneficiary driven individual houses. These risks will be managed by adopting mitigation measures and standard operating procedures. By using E&S Screening checklist or negative lists. This will support project teams to avoid areas not suitable for housing, such as floodplains with high frequency of flooding in yearly rainy seasons or slopes prone to landslides and/or rock falls.

In addition, A transparent and robust MIS has been designed with the consultation of World Bank ("WB") by Tally Marks Consulting (TMC). TMC will help with the development of a web-based portal, mobile application and executive dashboards that will assist in the disbursement, management, and monitoring of financial grants for the restoration and rebuilding of homes affected. The MIS system will accomplish the following objectives including but not limited to the following:

- Through a robust MIS system, the linkage between the donor and the beneficiaries shall be direct, transparent, and efficient
- The MIS will ensure the direct transfer of funds to the beneficiary without any human intervention and the step-up construction of the house shall be transmitted to the donor directly.
- MIS system will enable a uniquely transparent process for donors, that delivers granular visibility right down to the individual beneficiary
- The MIS system also ensures that multiple donor streams can be created, and local and international donors shall be working through this MIS concurrently.

Furthermore, the drone surveys will be carried out in pre-defined areas where the housing reconstruction is either planned or being undertaken. Furthermore, to housing units and land cover, the drone survey will collect topographic information to identify the elevation of the terrain and any changes that are natural or may have occurred as a result of natural disaster such as flooding, and such drone imageries will be utilized for settlement development plans. The drone-based aerial survey will play a crucial role in monitoring, evaluation and reporting the housing reconstruction in 24 districts of Sindh.

The ESCOP should be adopted and practiced at this stage of the project implementation and made part of the ESMF:

3.1 Stakeholder Engagement and Information Disclosure

In accordance with the requirement outlined in ESS10 of WB and the ADB's SPS 2009 **Stakeholder Engagement and Information Disclosure**, it is important to conduct thorough stakeholder consultations throughout the project life cycle, including the preparation phase, implementation, and monitoring stages. Effective stakeholder engagement and facilitation must be prioritized to ensure transparency and collaboration.

Following key aspects should be part of the stakeholder consultation process:

- Identify and engage affected communities throughout the life of the project.
- Facilitate stakeholder's access to project information, including on the various forms of financial and technical support for reconstruction and educate individuals on their entitlements, rights, and responsibilities, and the ways that they can participate and fully benefit from project activities.
- Supporting house owners to build better houses in compliance with proposed designs by the project.
- Engage stakeholders and organize the project beneficiaries and other community within selected settlement for construction of multi-hazard resilient community infrastructure such as WASH facilities. Conduct E&S screening and assessment of likely adverse social and environmental impacts and potential mitigation measures to be considered during design and implementation of such infrastructure. Engage stakeholders to define and identify house owners/residents from vulnerable and disadvantage affected groups such as women, children who lost their parents during flood, elderly, marginalized ethnic communities, transgenders, and widows without support of a male figure, disabled and poor with no land title. Establish one-window arrangement to facilitate vulnerable and disadvantage groups.
- Address grievances of affectees through establishment of a robust Grievance Redressal Mechanism (GRM) for the project.

3.2 Beneficiaries Eligibility Criteria

The project would contribute to the rehabilitation and resilience building of flood-affected communities in Sindh. While the housing subsidy grants would be targeted to a subset of the affected population, the project, through its technical assistance component, would benefit the entire province by supporting the design of the overall housing reconstruction program of the GoS for 2022 floods rehabilitation and reconstruction. Any additional funding channeled for housing reconstruction in Sindh will be aligned with the housing reconstruction policy, standards, and principles established under this project through the housing reconstruction program.

The Project would have specific benefits for people living in the geographical locations served through the housing subsidy grants for reconstruction/restoration of damaged houses. Through an owner-driver approach, approximately 350,000 multi-hazard resilient core housing units with an estimated 1.4 million beneficiaries will be supported by the World Bank. Meanwhile, through ADB's financial assistance, another 250,000 housing units having almost 1.0 million residents will be re-constructed following prescribed multi-hazard resilient standards, roughly half of these beneficiaries are estimated to be female, based on demographic information available for these areas.

The following procedure is laid down for the disbursement of the 1st instalment i.e. cash grants to those individuals whose houses have been completely destroyed (PRs. 300,000) in 2022 Floods.

- Social-Technical Assessment Teams (STATs) constituted for the purpose of determining whether a house is completely destroyed or partially damaged (retrofit-able) shall fill in

the damage assessment forms and geo-tagging by conducting house to house survey in the flood affected area.

- The form shall be filled in by STATs in front of the beneficiaries shall show; besides other particulars, name of the bank, branch and account number or post office/branch and account number of the eligible people.
- The filled-out forms shall be delivered to the designated office/unit on the daily basis both in hard and soft forms. The Project Coordinator/Senior Engineer of IP shall verify the data and the eligibility.
- Post verification of the forms by IPs supervisory structures, the forms will be submitted to SPHF for review/verification. Under the project SPHF plans to hire an independent validator, who will validate 5 % of randomly selected submitted assessment through MIS.
- The compensation to the beneficiary will only be trigged once the verification is received from the Independent Validator. In addition, the SPHF team including Engineers & Disbursement Officer will also review of the submitted form for verification.
- As per the approval for payment, after confirmations by SPHF team (Engineers & disbursement officers) the note for disbursement will be placed to Chief Financing Officer (CFO) after necessary approval by the Chief Executive Officer (CEO) through the Chief Operating Officer (COO).

IPs will submit the assessment checklists and Forms to SPHF on a regular basis. The SPHF shall prepare various types of reports including separate lists for the destroyed and retrofit-able houses. These lists shall be prepared bank/branch-wise with bank account numbers of the eligible individuals with the amount payable to each beneficiary. These lists will also be accompanied by a statement summary showing the particulars of various bank branches along with the total amount payable at each branch for a given number of persons maintaining their account with that branch of the bank. The SPHF shall issue instructions to its bank for the transfer of money into the beneficiary's accounts.

The following procedure is laid down for the disbursement of 2nd instalment;

- Upon receiving request from the beneficiaries or as a result of follow-up visits, the STAT(s) shall inspect construction carried out up to the 'Plinth Level' and geotag the structure.
- For inspection purposes, the relevant engineer shall fill-in the checklist as prescribed by SPHF. One copy of the checklist may be handed over to the beneficiary and original shall be retained by the STAT(s).
- The plinth shall be digitally photographed and geotagged. With regards to verification, transfer of money, disbursement procedures as laid down above (for 1st instalment) shall be followed.

The following procedure is laid down for the disbursement of 3rd instalment.

- Upon receiving request from the affectees or as a result of follow-up visits, the STAT(s) shall inspect construction carried out up to the 'Lintel Level'.
- For inspection purposes, the relevant engineer shall fill-in the checklist as prescribed by SPHF. One copy of the checklist may be be handed over to the beneficiary and original shall be retained by the STA Teams.
- The structure shall be digitally photographed and geo-tagged. With regards to verifications, transfer of money, disbursement procedures as laid down above (for 1st instalment) shall be followed.

The following procedure is laid down for the disbursement of 4th instalment.

- Upon receiving request from the affectees or as a result of follow-up visits, the STAT(s) shall inspect construction carried out at 'Roof Level'.

- For inspection purposes, the relevant engineer shall fill-in the checklist as prescribed by SPHF. One copy of the checklist shall be handed over to the beneficiary and original shall be retained by the STAT(s).
- The structure shall be digitally photographed and geo-tagged. With regards to verification, transfer of money, disbursement procedures as laid down above (for 1st instalment) shall be followed

3.3 Addressing the Needs of the Vulnerable People

To identify and document support to the vulnerable Socio Technical and Assessment Teams are required to categorize individuals according to their vulnerability. During damage assessment, a vulnerability census will also be carried out and each identified vulnerable will be checked on whether she/ he had capacity to rebuild her/ his own house or not. The capacity to rebuild should be considered to have existed if a vulnerable individual had family members or relatives or community members available and willing to help in reconstructing her/his (vulnerable) house. During re-construction phase STAT(s) will carry out a re-check on vulnerable whether they need any help in reconstructing their houses or not.

Vulnerability is defined as “the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard. It involves a combination of factors that determines the degree to which someone’s life, livelihood, property, and other assets are put at risk by a discrete and identifiable event in nature and society”. The vulnerable segments include:

1. Widows Women with disabled husbands
2. Women headed households
3. Divorced / abandoned women / unmarried older women dependent on others
4. People with disability (physically or mentally)
5. Unaccompanied minors i.e., orphans
6. Unaccompanied elders, over the age of 60
7. Landless and poor living below poverty line.

Form – III: Settlement level Vulnerability Identification Form

S.No	Form Number	Name	Parentage	CNIC No	Vulnerability on or after Floods	Type of Vulnerability

3.4 Labor and Working Conditions

The houses will be constructed or reconstructed by the beneficiaries themselves, thereby reducing the potential for in-situ labor management issues.

Procurement of construction material under the project design is the discretion of the beneficiary-whose house to be reconstructed. The Sindh Peoples Housing for Flood Affectees (SPHF will not be involved in the acquisition of construction materials. However, with regards to the broader impact on labor practices within the supply chain, it is desirable for SPHF to advocate for adherence to the principles outlined in "ESS2: Labor and Working Conditions" of WB ESH and the ADB’s commitment on Core Labour Standards (CLS) outlined in ADB’s Social Protection Strategy. These conditions will be mandatory for all

SPHF personnel involved in the project. The Grievance Redressal Mechanism (GRM) will be in place to resolve labor related issues of project workers. The following labor management procedures will be implemented within the project:

- Development of labour management plan for employees of the project.
- Development and deployment of project GRM in a timely manner.
- Promotion of good labour management practices among the supply chain enterprises for the construction sector in the province.
- Protections against the use of child labour and forced labour.
- Protection against gender-based discrimination and workplace harassment.
- Protect freedom of association and right to collective bargaining.
- Issues related to occupational health and safety issues for masons
- Occupational health and safety issues where the beneficiary themselves construct their house.
- Issues related to workplace conditions.
- OHS issues related to weather conditions (heat wave)

3.5 House Design, Resource Efficiency, Pollution Prevention, and Community Health and Safety

The baseline environmental conditions in flood-affected areas and settlements are likely to be impacted. A wide range of human settlement waste, construction debris, depleted and contaminated water sources, and inadequate sanitation are anticipated. Additionally, the procurement of construction materials may contribute to air pollution from brick kilns, cement factories, and concrete and sand extraction. In light of these circumstances, it is essential to consider the World Bank principles of **"ESS3: Resource Efficiency and Pollution Prevention and Management**" and **"ESS4: Community Health and Safety"** and the ADB's safeguards management requirements outlined in the SPS 2009 and Social Protection Strategy of 2001 during the design and implementation of the project. The design of new housing should take into account the following considerations:

- Avoid the usage of hazardous construction material such as: asbestos, lead-based paints, formaldehyde-based material, synthetic mineral fiber, etc.
- Avoid stock piling of construction material.
- Use of local water resource may be an issue is some cases.
- Safe water supply, sanitation and liquid and solid waste management as part of the house design and community infrastructure.
- Energy efficiency through better insulation.
- Opportunities for rainwater harvesting.
- Raised plinth levels to avoid low level of floods impacts.
- Use of wind and flood water resistant materials etc.
- Need for procedures for control, management, and disposal of construction waste.
- Managing domestic waste.
- Use of safe construction practices.
- Protect the children from entering the construction area.

3.6 3.5.1 Debris Management and Site Clearance

There is a possibility that substantial quantities of waste material will be present at flood affected areas. These waste products could encompass vegetative waste, construction and

demolition debris, putrescible waste including fruits, vegetables, meats, dairy products, and animal remains that undergo rapid decay, and infectious waste. These waste products will need to be disposed and site to be cleared prior to start of reconstruction activities by adopting following practices:

- Remove the waste material from the site and dispose at a designated disposal area.
- Promote recycling of reusable materials in the waste products such as bricks, wood, metal sheets etc.
- Promote the processing of rubble to recycle it through rubble crushers.

3.7 Designing of Multi-hazards Resilient Houses

Multi-hazard resilient houses will be designed and constructed so that these houses could withstand climate change hazards such as floods and heat waves in future. Following major features of resilient housing will be considered in the design and construction stages:

- Placing houses with their longer axes to the prevailing wind direction and facing house openings towards the dominant wind directions to take advantage of natural ventilation.
- Orienting houses on the land in such way to optimize the use of sun and wind.
- Planning for the east and west façades of houses in hot climates to be shaded to minimize solar heating, especially during morning and afternoon hours, and heat gain of external walls, thus minimizing indoor temperatures and improving users' comfort.
- Dispersing the houses to allow cool winds to circulate.
- Allowing house design to use the natural airflow to lower internal temperatures and reduce the impacts of heat and humidity on the building and its users.
- Ensuring that the house's shape is of "open" character, allowing airflow through many openings, such as windows, louvres, and doors. Openings will be placed on opposite sides of the house to improve cross-ventilation.
- Considering using large overhanging roofs, which provide good shading and protection against heavy rains.
- Installing heavy and thick walls to decrease heat penetration during daytime and cold penetration at night-time.
- Considering installation of solar photovoltaic system at each home to get electricity from renewable energy sources.

3.8 Land Acquisition

Most of the houses will be reconstructed at existing locations. Houses that were previously situated in flood-prone areas such as riverbanks and natural drainage beds will not receive financing for reconstruction at their current locations. Instead, these houses will be relocated to a safer location available within or in the periphery of existing human settlements. Compulsory acquisition of land for relocating the human settlements or construction of multi-hazard resilient community infrastructure like WASH facilities will be strictly avoided, however, wherever needed alternate communal/government land within or adjoining existing settlements will be preferred for relocating the flood damaged housing units and/or the voluntary relocation will be allowed to the willing beneficiaries for constructing their housing unit on their titled land available in other settlements. Connectivity of the relocated houses with the basic services is an essential locational requirement. Adhering to the provisions outlined in "**ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement"** of World Bank and the IR policy requirements outlined in the ADB's SPS 2009, the guidelines below will be taken into consideration during the process of site selection and relocating these homes to ensure compliance with regulations and minimize any negative impact on the community.

- Conduct social safeguards screening and categorization of all selected settlements declared eligible for support following pre-structured screening and categorization checklists designed for the project and tag separately the selected settlements involving relocation on alternate land either due to unsuitability of the existing location or non-availability of encumbrance free land for reconstruction of flood damaged housing unit in existing settlement.
- Prepare resettlement framework at the project level and resettlement plans at the human settlement level (inclusive of settlement development approach) in case involuntary resettlement pops-up either due to acquisition of land or clearance of encumbrances during project implementation.
- Avoid land acquisition and relocate houses either on lands owned by household to be relocated or new locations where land is owned by the government and readily available without encumbrances.
- In case of voluntary resettlement on the titled land of the beneficiaries or in the new settlements designed on communal and/or government land, the social assessment of relocation sites will be carried out and measures for livelihood restoration and enhancement such as youth skill development training, linking microfinance institutes with the resettled households to explore financial access, and business development in the new relocation sites/areas.
- If involuntary resettlement emerges, the resettlement plan will be prepared following the provisions of the WB's ESS-5 and ADB's IR requirements outlined in the SPS 2009 that will also include livelihood restoration, social protection and enhancement measures including access to civic amenities, youth skill development training, linking microfinance institutes with the resettled households for accessing financial support and business development in the new relocation sites/area.
- Monitor the implementation status of the resettlement plans (in cases of involuntary resettlement) and the measures ensured for livelihood restoration and enhancement of social protection for the beneficiaries by using pre-structured monitoring checklists and report. Prepare and deliver monthly (by IPs) and quarterly (by SPHF) social monitoring reports to ensure the ESMF provisions are being complied by the project implementing entities.
- Essentially consider to maintain existing social relationships within the community when relocating houses.

3.9 Biodiversity Conservation and Sustainable Management of Living Natural Resources

It has been observed that a significant number of trees within residential areas and communities have been eradicated. This is a matter of concern as trees play a crucial role in providing shade and regulating the temperature, thereby enhancing air quality. In light of this situation, it is important that new trees be planted to serve as a replacement, ensuring that the environmental benefits they offer are sustained.

SPHFA should focus on following aspects as per the requirements of **"ESS6-Biodiversity Conservation and Sustainable Management of Living Natural Resources":**

- Protection of the existing trees, bushes etc. while reconstruction of the houses.
- Planting of new trees to serve as storm, flood, and tidal waves protection barriers.
- Planting tree species of local habitat, useful in fruit/food and for firewood supplies.
- Planting of trees that have good health properties for human and moderating climate
- Enhancing the aesthetic and recreational value of the area.
- Conservation and protection of important biodiversity and natural assets.

- Potential impact on biodiversity and habitats
- Negative lists or/and prohibitions where the project will be implemented (for e.g. no implementation in the protected areas)

3.10 Indigenous People and Communities, and Cultural Heritage

Indigenous people or communities: Indigenous people or communities meeting the ESS7 criteria of WB or the Indigenous People Safeguard requirement of ADB's SPS 2009 are not present in Sindh. So, **"ESS7: Indigenous/Sub Saharan African Historically Underserved Traditional Communities"** and the Indigenous people safeguards requirements of ADB's SPS 2009 ar not applicable to the project.

Cultural Heritage: Sindh province has a large number of cultural heritage sites and buildings. It is possible that floods might have revealed previously hidden cultural heritage assets and construction activities may lead to the chance discovery of such assets. In such scenarios, it is important for the project to implement the chance find procedures outlined in "**ESS8: Cultural Heritage'** and these should be made part of the ESMF.

3.11 Grievance Redressal Mechanism and Capacity Development

The implementation of a comprehensive Grievance Redressal Mechanism (GRM) is necessary for the successful support of the project. At the outset of the project, the following actions should be taken:

- Prepare project specific GRM system and disclose the same to the stakeholders. GRM should be aligned and linked with Sindh Chief Minister Complaint Cell and Provincial Ombudsman (Mohtasib) Sindh when incorporated in ESMF to increase the outreach of the project GRM.
- Development of special GRM system by SPHF such as online complaint/grievance registration portal and dashboard of registered grievance redressal status.
- Develop the capacity of Sindh Peoples Housing for Flood Affectees (SPHF), Government of Sindh and its local level implementation partner institutions for the effective implementation of stakeholder engagement plan, development of beneficiaries' selection criteria, and operationalization of GRM.

Reconstruction of house specific ES Codes of Practices Screening Checklists are attached as Annexures below. These checklists will be used to ensure that the beneficiary applies ES codes of practices during reconstruction of their houses under the project.

Annex 2: Social Codes of Practice:

Social codes of practice for the reconstruction of resilient houses should prioritize sustainability, community engagement, social equity, labor and human rights, health and safety, cultural heritage, and access to services. These codes of practices should be integrated into the planning, design, and implementation of reconstruction projects to ensure that they are socially inclusive and contribute to the long-term resilience of affected communities.

The details of the social codes of practice needs to be considered under the reconstruction activities are as under:

Community Engagement: Involve affected communities in the reconstruction process from planning to implementation, and ensure their meaningful participation in decision-making, design, and construction activities. Consider local cultural and social norms and prioritize the needs and aspirations of the community towards the reconstruction of houses.

To achieve the community participation, the beneficiary and non-beneficiary households should be mobilized and organized to form the Village Reconstruction Committees (VRCs) who will support/help beneficiaries and IPs in the implementation of reconstruction work along with resolving local disputes, etc.

Social Equity: Ensure that reconstruction efforts are inclusive and do not discriminate against any group, including vulnerable populations such as women, children, elderly persons, persons with disabilities, and marginalized communities. Provide equal access to housing and essential services near their villages/settlements.

Labor and Human Rights: Uphold fair labor practices, including fair wages as per approved government policy, safe working conditions, and protection of workers' rights. Respect human rights and ensure that there is no forced or child labor of age (less than 14 years) involved in the reconstruction process.

Health and Safety: Ensure that reconstructed houses meet health and safety standards, including proper ventilation, drainage, and structural stability. Consider the needs of people with special health conditions or disabilities.

Cultural Heritage: Respect and protect local cultural heritage, including traditional architecture, craftsmanship, and cultural practices, and integrate them into the design and construction of resilient houses wherever possible.

Access to Services: Ensure that reconstructed houses have access to essential services such as clean water, sanitation facilities, electricity, and communication networks, to support the well-being and resilience of the affected communities.

Environmental Sustainability: Prioritize the use of sustainable building materials and construction techniques that minimize environmental impact and contribute to the long-term sustainability of the community.

Economic Development: Ensure that reconstruction projects contribute to the economic

development of the affected communities, such as by providing employment opportunities and supporting local businesses and industries.

Disaster Risk Reduction: Incorporate disaster risk reduction measures into the reconstruction process to minimize the risk of future disasters and enhance the resilience of the community.

Gender Equality: Ensure that the reconstruction process promotes gender equality and women's empowerment, by providing equal opportunities for women to participate in decision-making and construction activities and addressing gender-specific needs and vulnerabilities.

Transparency and Accountability: Ensure transparency and accountability in the reconstruction process, by providing clear information to the affected communities about the reconstruction process, including timelines, budgets, and decision-making processes, and establishing mechanisms for community feedback and grievance redressal.

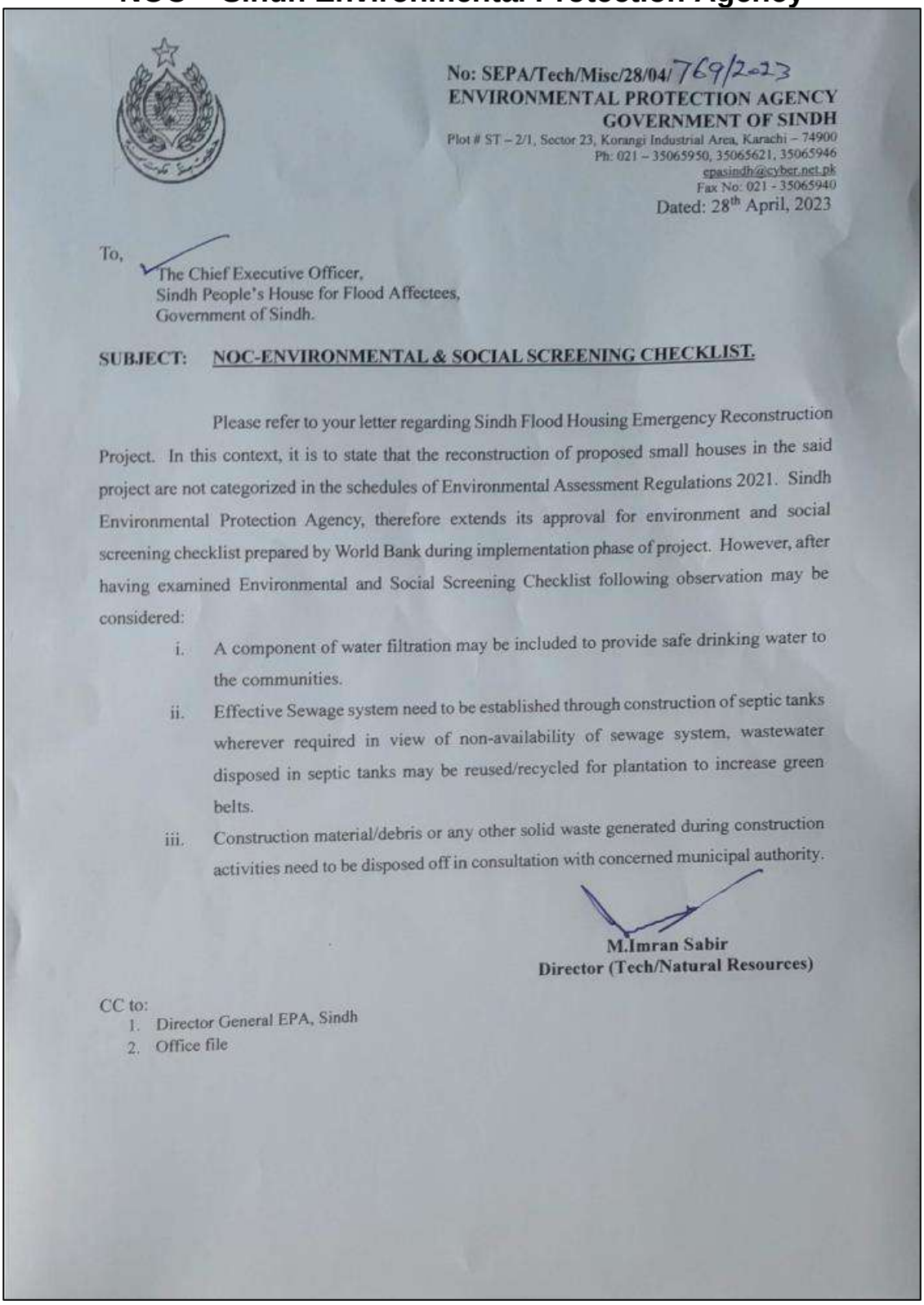
Annex 3: List of Project Districts

List of Project Districts

Project Districts			
S.No.	**District Name**	**Funding Source**	
1	Umerkot	**World Bank Funded**	**Asian Development Bank**
2	Mirpurkhas		
3	Thatta		
4	Badin		
5	Sujawal		
6	Mitiari		
7	Jamshoro		
8	Dadu		
9	Tando Allayar		
10	Tando Muhammad Khan		
11	Tharparker		
12	Sangarh		
13	Larkana		
14	Sukkur		
15	Khairpur Mirs		
16	Jacobabad		
17	Kashmore		
18	Qamber Shadadkot		
19	Shikarpur		
20	Karachi	**GoS Funded**	
21	Hyderabad		
22	Nausharo Feroze		
23	Shaheed Benazirabad		
24	Ghotki		

Annex 4: NOC – Sindh Environmental Protection Agency

NOC – Sindh Environmental Protection Agency



No: SEPA/Tech/Misc/28/04/769/2023
ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF SINDH
Plot # ST – 2/1, Sector 23, Korangi Industrial Area, Karachi – 74900
Ph: 021 – 35065950, 35065621, 35065946
epasindh@cyber.net.pk
Fax No: 021 - 35065940
Dated: 28th April, 2023

To,
The Chief Executive Officer,
Sindh People's House for Flood Affectees,
Government of Sindh.

SUBJECT: NOC-ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST.

Please refer to your letter regarding Sindh Flood Housing Emergency Reconstruction Project. In this context, it is to state that the reconstruction of proposed small houses in the said project are not categorized in the schedules of Environmental Assessment Regulations 2021. Sindh Environmental Protection Agency, therefore extends its approval for environment and social screening checklist prepared by World Bank during implementation phase of project. However, after having examined Environmental and Social Screening Checklist following observation may be considered:

i. A component of water filtration may be included to provide safe drinking water to the communities.
ii. Effective Sewage system need to be established through construction of septic tanks wherever required in view of non-availability of sewage system, wastewater disposed in septic tanks may be reused/recycled for plantation to increase green belts.
iii. Construction material/debris or any other solid waste generated during construction activities need to be disposed off in consultation with concerned municipal authority.

M.Imran Sabir
Director (Tech/Natural Resources)

CC to:
1. Director General EPA, Sindh
2. Office file

Annex 5: Protected Areas in Sindh

S. No.	Protected Areas	District	S. No.	Protected Areas	District
1	Kirthur National Park	Dadu and Malir Distrcits	23	Munarki	Thatta
2	Takkar	Khairpur	24	Hilaya	Thatta
3	Hudero Lake	Thatta	25	Khadi	Thatta
4	Keenjhar (Kalri) Lake	Thatta	26	Keti Bander North	Thatta
5	Haleji Lake	Thatta	27	Keti Bander South	Thatta
6	Lung Lake	Larkana	28	Khat Dhoro	Larkana
7	Drigh Lake	Qamber Shadadkot	29	Runn of Kutch	Badin & Tharparkar
8	Mahal Kohistan	Dadu	30	Nara Desert	Sukkur, Khairpur 7 Sanghar
9	Hab Dam	Karachi	31	Deh Akro - II	Shaheed Benazirabad (formerly Nawabshsh)
10	Ghondhak Dhoro	Jacobabad	32	Deh Jangisar	Thatta
11	Miani Dhand	Hyderabad	33	Deh Khalifa	Thatta
12	Samno Dhand	Hyderabad	34	Dosu Forest	Larkana
13	Gulsher Dhand	Tando Adam	35	Hala Forest	Hyderabad
14	Dhounk Block	Shikarpur	36	Indus River (Dolphin Reserve) From Sukkur to Guddu Barrage	Jacobabad/Ghotki/Shikarpur &Sukkur
15	Lakhat	Shaheed Benazirabad	37	Khipro Forest	Sanghar
16	Kot Dinghano	Shaheed Benazirabad	38	Mando Dero Forest	Sukkur
17	Mohabat Dero	Nausharo Feroze	39	Mirpur Sakro Forest	Thatta
18	Bijoro Chhach	Thatta	40	Nara	Khairpur
19	Shah Lanko	Thatta	41	Pai Forest	Shaheed Benazirabad (formerly Nawabshsh)
20	Majiran	Thatta	42	Sahib Samo Forest	Hyderabad
21	Gullet Kohri	Thatta	43	Surjan, Sumbak, Eri & Hothiano Mountains	Dadu
22	Marho Kotri	Thatta	44	Tando Mitho Khan Forest	Sanghar

Annex 6: Negative and Positive List for Environmental and Social Management Framework

World Bank Safeguards	Negative List
Environmental Assessment	- Areas of known/suspected contamination due to hazardous substances
	- Activities having "significant adverse cumulative/transboundary impacts"
Land-use pattern	- Construction in areas causing a significant change in existing land use pattern.
Natural habitats	- Involves any works in protected areas or in or around sensitive/critical natural habitats
	- Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.
	- Disrupt wildlife and vegetation/Greenland/Flora
	- Selection of sites where threatened and endangered species, migratory pathways have been reported
Physical Cultural Resources	- Loss or damage to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values, livelihoods including cultural resources.
Indigenous Groups	- Likely to create adverse impacts on ethnic group/villages/and or neighboring villages or unacceptable to ethnic groups living in a village of mixed ethnic composition.
Forests	- Clearance of ecologically sensitive/protected forests
Land Acquisition and Involuntary Resettlement	- Areas under Anti Encroachment Drive
	- Cause any displacement or severe loss of livelihood
	- Compulsory land acquisition under LAA 1894 or restricted access to shelter, natural resources and income sources.

Positive List
- Optimizing use of available natural resources by utilization of existing material/debris of the damaged houses. - Stakeholder involvement and commitment during construction.
- Use of renewable energy (solar) and environmentally friendly techniques for construction
- Usage of water conservation techniques as part of the design.
- Appropriate design considerations to minimize adverse impacts on environment (flora, fauna, natural resources, cultural resources) and human and community health.
- Construction, rehabilitation and design improvement of existing settlement improvement/protective infrastructure.
- Activities designed specifically to avoid disturbance or nuisance to the local community in terms of high noise, usage of scarce/valuable natural resource.

Annexure 6-A: ADB's Prohibited Investment Activities List (Appendix-5 of SPS 2009)

Prohibited Investment Activities List (PIAL) of the ADB, which is largely consistent with the IFC Exclusion List (2007) is adopted in this ESMS. Accordingly, the following project activities do not qualify for P3A financing:

(i) production or activities involving harmful or exploitative forms of forced labor[52] or child labor;[53]
(ii) production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phaseouts or bans, such as (a) pharmaceuticals,[54] pesticides, and herbicides,[55] (b) ozone-depleting substances,[56] (c) polychlorinated biphenyls[57] and other hazardous chemicals,[58] (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora,[59] and (e) transboundary trade in waste or waste products;[60]
(iii) production of or trade in weapons and munitions, including paramilitary materials;
(iv) production of or trade in alcoholic beverages, excluding beer and wine;[61]
(v) production of or trade in tobacco;[10]
(vi) gambling, casinos, and equivalent enterprises;[10]
(vii) production of or trade in radioactive materials,[62] including nuclear reactors and components thereof;
(viii) production of, trade in, or use of unbonded asbestos fibers;[63]
(ix) commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests;
(x) marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.

[52] Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.
[53] Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).
[54] A list of pharmaceutical products subject to phaseouts or bans is available at http://www.who.int.
[55] A list of pesticides and herbicides subject to phaseouts or bans is available at http://www.pic.int.
[56] A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phaseout dates. Information is available at http://www.unep.org/ozone/montreal.shtml.
[57] A group of highly toxic chemicals, polychlorinated biphenyls are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.
[58] A list of hazardous chemicals is available at http://www.pic.int.
[59] A list is available at http://www.cites.org.
[60] As defined by the Basel Convention; see http://www.basel.int.
[61] This does not apply to project sponsors who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to a project sponsor's primary operations.
[62] This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.
[63] This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

Annex 7: Environmental and Social Screening Checklist (a)

Environmental and Social Screening Checklist

A	**General Information:**	**Name of Surveyor**				**Date:**		
	Project Location (District):							
	Site Location (Taluka, UC, Deh, Settlement):							
	Project Activities:	**Reconstruction/Construction of House**		**No. of Units:**		**No. of kaccha houses (as per DA):**		**No. of pakka houses (as per DA):**
	Implementing Partner:							
	Sensitive Receptors (within 200m): Schools, Mosques/Temple/Church res. community, streams/canals/lakes, agricultural land							
	Important Biological Features (If Any/Non-Quantitative)							
	Is this project located in an area with wastewater network							
	Is the drinking water available in the settlement							
	Existing solid waste management practices	**Government**	**Self**	**Public**	**Private**	**Pit Burning**	**None**	**Any Other:**
	Specify local GRM System if Any.							
	In cases of beneficiary driven relocation, is the land title and its possession status known / documented for land marked to construct flood damaged housing units in identified potential	Is there any case of voluntarily relocation in the settlement Yes ( ) No ( ) In case of Yes is it documented Yes ( ) No ( )						

	relocation site?	
	Will the project involve compulsory acquisition of land under LAA for reconstruction of flood affected housing units	Yes ( ) No ( )
B	**Sub Project E&S Issues:**	

S. No.	Issues	No/Yes	Risk Level				Remarks/ Mitigation Measures
			Low	Moderate	Substantial	High	
a.	**Environmental Parameters**						
1.	Is there any waste[64] present at the reconstruction location which needs to be cleared before start of construction?						
2.	Will the sub project involve significant land disturbance or site clearance?						
3.	Will the sub project require large amounts of raw/construction materials?						
4.	Is the sub project expected to generate large amounts of residual waste, construction waste?						

[64] Primary: In the form of rubble and debris from damaged building, hazardous material (e.g. asbestos) and sludge
Secondary: waste from relief activities i.e plastic, cardboard, paper, rubber, tins and cans, packaging material.

S. No.	Issues	No/Yes	Risk Level				Remarks/ Mitigation Measures
			Low	Moderate	Substantial	High	
5.	Is the sub-project expected to result in soil erosion or pit due to extraction of soil?						
6	Is there signs of existing soil/water contamination OR Will the sub-project result in potential soil/water contamination as a result of runoff/construction activities?						
7.	Will the sub project involve storage, handling and transport of hazardous substances?						
8.	Will the sub-project have an impact on ambient air quality and air emissions?						
9.	Will the sub project increase ambient noise levels?						
10.	Will there be any impact on flora due to project activities?						
11.	Will there be any impact on fauna due to project activities?						
13.	Will the sub project have an impact on archaeological and historical sites?						

S. No.	Issues	No/Yes	Risk Level				Remarks/ Mitigation Measures
			Low	Moderate	Substantial	High	
14.	Will the sub project pose occupational health and safety risks?						
b.	**Social Parameters**						
1.	Will the reconstruction process entail the possibility of displacing individuals or communities due to restricted land use, excess to natural resources of livelihood sources?						
2	Will the site selection for construction of flood damaged housing units affect the above land assets (crops and trees and structures etc.) or established easement rights of the individuals or community[65]?						
3.	Will the project activities have any negative impact on basics services, such as water, sanitation, and healthcare?						
4.	Will the reconstruction process negatively affect traditional or cultural practices of local community?						

[65] For WASH facilities and settlement improvements under Output-1, safeguards screening and detailed assessment will be conducted during design and accordingly safeguards screening and related documents will be delivered as a part of project design documents.

S. No.	Issues	No/Yes	Risk Level				Remarks/ Mitigation Measures
			Low	Moderate	Substantial	High	
5.	Will the reconstruction process have a detrimental impact on the utilization of land or other natural resources relied upon by local communities?						
6.	Will the activities supported by the project have an adverse effect on any marginalized population, including ethnic and religious minorities, migrants, individuals with disabilities, transgender individuals, or isolated individuals such as widows, widowers, the elderly, orphans?						
7.	Will the reconstruction process require compliance with national labor laws including working hours, minimum wage and working conditions?						
8.	Will the activities supported by the project anticipate the occurrence of child labor, forced labor, or bonded labor?						
9.	Will the process of reconstruction have a detrimental effect on the health and safety of the labour involved?						
10.	Will the project activities involve a significant inflow of labor?						
11.	Is there a possibility that the project's implementation process might overlook the involvement of pertinent stakeholders, particularly women and other marginalized groups, in the consultation process?						

S. No.	Issues	No/Yes	Risk Level				Remarks/ Mitigation Measures
			Low	Moderate	Substantial	High	
12.	Is there a possibility that the project's team might overlook the inclusion of all eligible HHs whose houses were impacted by the flood, particularly women and other marginalized groups, in the re-verification process?						
13.	Will the sub project pose community health and safety risks?						

Annex 8: Environmental and Social Monitoring Checklist (b)

Environmental and Social Monitoring Checklist

Project Name: _____ Activities Inspected_____

Location _____ Weather Condition_____

Date: _____ Time: _____

Sr. No	Performance Indicators	Yes	No	N/A	Description	Remarks
1.	Heavy dust					
2.	Excessive noise or vibration					
3.	Water sprinkling at the construction and disposal sites					
4.	Discharge of wastewater to nearby water course/water body					
5.	Any spillage of fuel/oil observed					
6.	Dumping of solid waste at designated Site					
7.	Dumping of construction waste/spoil at designated Site					
8.	Protection of flora/fauna					
9.	Availability of drinking water					
10.	Site housekeeping					
11.	Warning signs displayed near construction zone.					
12.	Use of PPEs by the beneficiaries and workers					
13.	Any incident/accident (use separate proforma)					
14.	Any GBV/SEA and privacy related complaints					
15.	Availability of first aid boxes at site					
16.	Any land ownership provided to women beneficiaries					
17.	Any involuntary resettlement under the project					
18.	Any restriction of access of shelter, natural resources and income/livelihood sources noted under project					
19.	Proportion of local labor in the project					
20.	Gender based discrimination and exploitation					
21.	Child/force labor					
22.	Is the GRM properly in place?					

23.	Regular monitoring of complaint register is in practice					
24.	Any exclusion, specially to women, disadvantaged groups and marginalized people from project forums					
25.	Any elite capture related grievance					
26.	Participation of women, children, and vulnerable groups in consultations and project activities					
27.	Any Unusual Conditions (e.g., heavy rain, extreme weather)					
28.	Chance finds during construction					

Note If any:

Filled By:	**Extra Note if needed:**
_____ **Signature** **Name:** _____ **Position:** _____	

Note: mention the location and extent of degradation of exceeding indicators in description column or in a note if necessary.

Annex 9*: Incident Reporting Form*

Incident Reporting Form

B1: Incident Details			
Date of Incident:	**Time:**	**Date Reported to PIU:**	**Date Reported to WB:**
Reported to PIU by:	**Reported to WB by**:	**Notification Type**: Email/'phone call/media notice/other	
Trading Name of Main Contractor:		**Trading Name of Subcontractor**:	

B2: Type of incident (please check all that apply)[1]

Fatality ☐ Lost Time Injury ☐ Displacement Without Due Process ☐ Child Labor ☐ Acts of Violence/Protest ☐ Disease Outbreaks ☐ Forced Labor ☐ Unexpected impacts on heritage resources ☐ Unexpected impacts on biodiversity resources ☐ Environmental pollution incident ☐ Dam failure ☐ Other ☐

See Annex for definitions

B3: Description/Narrative of Incident

Please replace text in italics with brief description, noting for example:

I. What is the incident?
II. What were the conditions or circumstances under which the incident occurred (if known)?
III. Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?
IV. Is the incident still ongoing or is it contained?
V. Have any relevant authorities been informed?

B4: Actions taken to contain the incident

Short Description of Action	Responsible Party	Expected Date	Status

For incidents involving a contractor:
Have the works been suspended (*for example, under Contract GCC7.6 or GCC8.9 of Works*)? Yes ☐**;** No ☐**; Please attach a copy of the instruction suspending the works.**

B5: What support has been provided to affected people

C1: Investigation Findings
Please replace text in italics with findings, noting for example: *I. where and when the incident took place* *II. who was involved, and how many people/households were affected* *III. what happened and what conditions and actions influenced the incident* *IV. what were the expected working procedures and were they followed* *V. did the organization or arrangement of the work influence the incident* *VI. were there adequate training/competent persons for the job, and was necessary and suitable equipment available* *VII. what were the underlying causes; where there any absent risk control measures or any system failures*

C2: Corrective Actions from the investigation to be implemented (to be fully described in Corrective Action Plan)		
Action	**Responsible Party**	**Expected Date**

C3a: Fatality/Lost time Injury information

Cause of fatality/injury for worker or member of the public (please check all that apply):

1. Caught in or between objects ☐ 2. Struck by falling objects ☐ 3. Stepping on, striking against, or struck by objects ☐
4. Drowning ☐ 5. Chemical, biochemical, material exposure ☐ 6. Falls, trips, slips ☐ 7. Fire & explosion ☐
8. Electrocution ☐ 9. Homicide ☐ 10. Medical Issue ☐ 11. Suicide ☐ 12. Others ☐
***Vehicle Traffic:* 13. Project Vehicle Work Travel ☐ 14. Non-project Vehicle Work Travel ☐ 15. Project Vehicle Commuting ☐**
16. Non-project Vehicle Commuting ☐ 17.Vehicle Traffic Accident (Members of Public Only) ☐

Name	Age/DOB	Date of Death/Injury	Gender	Nationality	Cause of Fatality/Injury	Worker (Employer)/Public

C3b: Financial Support/Compensation Types (To be fully described in Corrective Action Plan template)

1. Contractor Direct ☐ 2. Contractor Insurance ☐ 3. Workman's Compensation/National Insurance ☐
4. Court Determined Judicial Process ☐ 5. Other ☐ 6. No Compensation Required ☐

Name	Compensation Type	Amount (US$)	Responsible Party

C4: Supplementary Narrative

For incidents involving a contractor:
Have the works been suspended in part or whole (for example, while corrective actions are put in place under Contract GCC7.6 or 8.9 of Works)? Yes ☐; No ☐;
Please attach a copy of the instruction suspending the works.

Annex 10: Resettlement Policy & Assessment Checklist

Resettlement Policy & Assessment Checklists
Sindh Flood Emergency Housing Reconstruction Project (SFEHRP)

The SFEHRP aims to support beneficiary-driven reconstruction of houses damaged because of floods 2022 floods. The project design is guided by the following set of principles based on the World Bank's experience in post-disaster housing reconstruction programs, i.e. i) beneficiary-driven rebuilding with financial assistance through cash grants as a housing subsidy for constructing a core housing unit and investment of community infrastructure like WASH facilities, ii) technical assistance and training for rebuilding to multi-hazard resilient standards, iii) housing cash grants to replace/restore damaged houses, iv) rebuild in situ, and v) voluntarily relocation, if required, and iv) additional financial support for vulnerable and restoring the livelihood and income sources of thee beneficiaries etc.

Based on these principles, any kind of involuntary resettlement along with forced land acquisition is neither part of the project nor envisioned to be practiced during the project life. However, the project may consider self-relocation of few beneficiaries purely based on voluntary resettlement to be assessed on case-to-case basis under information to the World Bank and the ADB.

The voluntary relocation is as per the choice of the beneficiaries who want to relocate to another place keeping in view the availability of residential land with title ownership and as per practice/SOPs. All such cases need to be approved by PIU post analysis of the same with reference to residential land availability, geographical proximity from the previous location and the reason(s) for relocation.

Reference to World Bank's Environmental and Social Standard (ESS-5) and the ADB's Safeguards Requirement SR-2 "Involuntary Resettlement (IR)" and SR-3 "Indigenous people" outlined in the SPS 2009, the land acquisition and resettlement is only applicable in case of potential adverse impacts that could arise from Bank-financed projects. Therefore, while keeping in view the fact that there will be no land acquisition, restriction to land uses or access to resources and the potential adverse impacts from the financial support provided under the SFEHRP are not envisioned, accordingly based on the above defined principles and the procedures of the project both land acquisition and resettlement stands not applicable.

Albeit land acquisition and involuntary resettlement is perceived, the IR and IP screening and categorization checklists are appended below (refer assessment Checklist #1) to conduct screening of potential IR risks for each selected settlement. These screening checklists will be filled by the Implementing Partner (IP) and submitted through SPHF to the respective IFI (WB and ADB) for approval prior to start of financial assistance/investment for reconstruction activities of flood damaged housing units or community infrastructures (i.e. WASH facilities).

Further to the above, for beneficiary driven voluntary resettlement cases, the assessment checklists appended below (refer assessment check list#2) will be filled. All cases involving any level of beneficiary driven relocation will be sent to the SPHF by the IP for approval prior commencement of work. In all such cases, the PIU will provide approval only with the consent of the IFIs i.e. WB and the ADB.

For the cases involving Voluntary Land Donations (where the affected parties/beneficiaries are located on private lands owned by people other than the affectees themselves), assessment checklist # 4 including the voluntary land donation template form # 3 appended below will be filled along with the assessment checklist # 2.

The process of voluntary relocation and donation of private land for reconstruction of flood affected housing units and/or community infrastructure (i.e. WASH facilities) the process for selection of alternate government land and/or private land through voluntary land donation arrangement will be reviewed and validated by the 3rd Party Monitor being engaged by the SPHF for safeguards compliance monitoring throughout project implementation period.

Assessment Checklist # 1

A. Involuntary Resettlement Checklist

Project Name
Name of Settlement and Village:
Name & number of UC/MC-Ward:
Name of City/Taluka/District :
Date of Assessment:

Assessment Questions	Yes	No	Expected	Remarks
1 Has any AED been conducted at the proposed location by the government[66]? Yes/No				
2 Will the land be acquired for the relocating the damaged housing or for construction of community infrastructure (WASH facilities) Yes/No				
3 Is the site and quantum of land likely to be acquired is known? Yes/No				
4 Is the title of land being acquired including land use categories known? Yes/No (Describe /tick mark the title and type of land being acquired from the categories below:)				
a. Land (Quantify and describe types of land being acquired in "remarks column".				
b. Government and LG owned land free of occupation (agriculture or settlement)				
c. Government or state-owned land (other than LG) free of occupation (agriculture or settlement)				
d. Private land				
e. Residential				
f. Commercial				
g. Agricultural				
h. Communal				
i. Others (specify in "remarks").				
5 Name of owner/owners and type of ownership document if available.				
6 If land is being acquired, will it cause loss of shelter or income source and appended assets? Describe any structures falling in types below constructed on it				
a. Residential structures				
b. Commercial structures (specify in "remarks")				
c. Community structures (specify in "remarks")				
d. Agriculture related structures and improvements (specify in "remarks")				
7 Will the public facilities and/or easement by utilized due to acquiring public ROW ? Yes/No Describe the likely impacts on following				
a. Public utilities likely to be interrupted (specify in "remarks")				
b. Other easement to be utilized (specify in "remarks")				
8 If agricultural land is being acquired, will it result in loss of crops and trees ?				

[66] No relocation allowed to any sites where any government led AED has been conducted during last 03 years.

Specify the estimated crop area and tree types as suggested below. following:				
a. Crops and vegetables (specify types and cropping area in “remarks).				
b. Trees (specify number and types in “remarks”).				
c. Others (specify in “remarks”).				
9 Is the number affected households losing shelter and productive assets known? Yes/No If yes provide crisp information below				
Affected Households/Affected Persons (AHs/APs) (Specify in remarks column)				
10 Will any of the AHs/APs be displaced physically and/or economically from the land and assets when acquired? Yes/No (If yes specify information below in remarks column)				
a. Estimated Number of physically or economically displaced Persons (DPs) i.e. Males / Females				
b. Titled landowners				
c. Tenants and sharecroppers				
d. Leaseholders				
e. Agriculture wage laborers				
f. Informal Settlers (specify in remarks column)				
g. Vulnerable APs (e.g. women headed households, minors and aged, orphans, disabled persons, and those below the poverty line). Specify the number and vulnerability in “remarks”.				
h. Others (specify in “remarks”)				

Prepared By: IP **Name:** **Signature:** **Date:**	**Endorsed By: SPHF** **Name:** **Signature:** **Date**	**Approved By: WB/ADB** **Name:** **Signature:** **Date:**

B: Indigenous People Checklist

Project Name:
Name of Settlement and Village:
Name & number of UC/MC-Ward:
Name of City/Taluka/District :
Date of Assessment:

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
A Indigenous Peoples Identification				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?				
2. Are there national or local laws or policies as well as anthropological research/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3. Do such groups self-identify as being part of a distinct social and cultural group?				
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
6. Do such groups speak a distinct language or dialect?				
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?				
B. Identification of Potential Impacts				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?				
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)				
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?				
C. Identification of Special Requirements				

Will the project activities include:				
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?				
14. Physical displacement from traditional or customary lands?				
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?				
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied, or claimed by indigenous peoples?				
17. Acquisition of lands that are traditionally owned or customarily used, occupied, or claimed by indigenous peoples?				

D: Anticipated project impacts on indigenous people.

Project component/ activity/ output	**Anticipated positive effect**	**Anticipated negative effect**

Prepared By: IP **Name:** **Signature:** **Date:**	**Endorsed By: SPHF** **Name:** **Signature:** **Date**	**Approved By: WB/ADB** **Name:** **Signature:** **Date:**

Assessment Checklist # 2

Resettlement / Voluntary Relocation Assessment Checklist

Name of District:

Name of Taluka/Tehsil:

Name of Village:

Settlement/Relocation site name:

Date of Assessment:

Assessment Questions	Yes	No	Remarks
A. Project Siting Is the relocation area adjacent to or within any of the following?			
i. Legally protected Area			
ii. PCRs and or any site of cultural/religious importance (graveyard, shrine, mosque, church, *gurdwara*, temple, fort, archeological/historical site) within 100 m of the proposed subproject[67]			
iii. Sensitive receptors (schools, colleges, hospitals, and clinics) within 100 m of the proposed sub project[68]			
iv. Any graveyard of local community (Muslims / Hindus / Christians / others)			
v. Any demographic or socio-economic aspects that are already vulnerable (e.g., high incidence of marginalized populations, rural-urban migrants, illegal settlements, squatters, ethnic minorities, people with disabilities, people in old age, socially isolated segments[69] of the society and women or children)?			
vi. Already existing infrastructure [70](including public amenities) which may be required to dismantle or may be affected temporarily by any means?			
1. If land is required on Voluntary basis (If "Yes", please also fill Voluntary Land Donation Checklist) (Assessment Checklist # 2)			
2. Displacement or involuntary resettlement of people? (physical displacement and/or economic displacement) (If "Yes", please also fill Involuntary Resettlement Checklist) (Assessment Checklist # 3)			

[67] According to Environmental Assessment Guidelines adopted by Sindh EPA
[68] Ibid.
[69] due to caste, creed, religion or gender e.g. transgender
[70] Sewerage /Drainage system, Water supply lines, tube-wells, WAPDA/Telephone transmission lines/electric poles, Railway tracks, Gas pipelines, Roads, Shops/Plazas, Banks, Industry, Disposal stations etc.

3. Disproportionate impacts on the poor, women and children and or other vulnerable groups [71](mentioned above)?			
4. Temporary impediments in movements of people/transport and animals?			

Prepared By: IP	**Endorsed By: SPH**	**Approved By: WB/ADB**
Name:	**Name:**	**Name:**
Signature:	**Signature:**	**Signature:**
Date:	**Date:**	**Date:**

[71] Women, Children, Women headed households, People in old age, people having disabilities, socially isolated community groups and or people living below the poverty line.

Template Form # 3

Format for Voluntary Donation of Land

(Voluntary Donation of Land on Rs. -----/- Stamp Paper)

1. This deed of voluntary donation is made and executed on …..... day of …..……. between Mr. …..S/o W/ Mr. ---------- AND the Government of Sindh through Sindh Flood Housing Reconstruction Company.
2. Whereas, the details of the Location of the land are given below:

Location Details Land Record No	**Location /Village**
Tehsil/UC	District
Title Holder/ Details	
Name and Father/ Husband's Name CNIC No,	Status: Title Holder
Age: **occupation:** **Residence:**	Gender:
Schedule –Land Details/structure	
Land in Question **Area**	 Location
North Boundary	East Boundary
West Boundary	South Boundary

Note: Detailed Map to the scale is appended.

1. It is testified that the Donar (individual/household) is recorded as sole owner of XXX acres of land in the land holding record register out of which XXX acres of land with land record survey numbers XXX and XXX is allocated for establishing settlement for land less and poor peasants working on the agricultural farmlands.
2. Whereas it is declared the Title Owner/s (Individual/household) has the absolute land ownership and use rights under the law and holds the transferable right of the above-mentioned piece of land in the village mentioned above.
3. Whereas it is confirmed that the current occupant/peasants does not hold any transferable rights of the above-mentioned piece of land in the village/settlement mentioned above but has been a long-standing occupant, dependent on its usufruct hereditarily.
4. Whereas the Title Holder testifies that the land is not subject to other claims/ claimants and does not obstruct access to other people's land or livelihoods.
5. Whereas the Title Holder hereby voluntarily surrenders the land/structure without any type of pressure, influence, coercion or payment whatsoever directly or indirectly and hereby surrender all his/her subsisting rights in the said land with free will and intention to the GoS for use and improvement of housing and community infrastructure for betterment of the poor and non-titled land users.
6. Whereas on behalf of the GoS, the Recipient (the SPHF) shall construct and develop residential infrastructure facilities under the SPERHF project and shall take all possible precautions to avoid damage to adjacent land/structure/other assets owned by the donor households and other residents in the village.
7. It is confirmed that the land's parcel donated does not constitute more than 10% of the entire landholding of the donor/donor's household and such donation will not adversely affect the income and income sources of the donor and his household members.

8. The donation is made free of cost and neither donor or nor any of his decedents will claim any compensation and or support from the Government in lieu of donated land. However, if the land is not utilized for the purpose it is being donated, the GoS will return the land back to the donor households.
9. This donation deed is signed by the titled land owner/s of the donor household and by the GoS through its authorized representative in the SPHF and testified by the witness below on XX-XX-XXXX.

Signatories

LAND DONOR (1st Party)		**Authorized Representative of the /GoS (2nd Party)**
Title holder(s) Name		Name and Designation
CNIC No.		CNIC No.
Signature and Thumb Impression		Signature and Official Seal
Dated		Dated
Transfer registration No.		
Witnesses		
1. UC Nazim	Name	Signature and Seal
CNIC		
2. Village Numberdar	Name	Signature and Seal
CNIC		
3. IP Representative	Name & Designation	Signature and Seal
4. SFEHRP Representative	Name & Designation	Signature and Seal

Assessment Checklist # 4
Verification of Voluntary Land Donation (VLD) Process

Checklist of Voluntary Land Donation (VLD) Process			
Sr. No.	**Description**	**Checklist Yes=Y; No=N**	**Remarks**
A	**Requirement for Voluntary Land Donation**		
1.	Area of land to be donated identified and marked		Land donation plan
2.	Parties intending to donate land approached and consulted		List of donor parties in the village and consultation record must be verified.
3.	Any details that are relevant to why donation may be appropriate documented and highlighted		Recorded reasons for land donation appropriateness must be verified.
4.	Terms of land donation outlined, agreed and donation deed signed.		Signed Land donation agreement***
B	**Determine the appropriateness of VLD**		
5.	Has the viability of all other alternative locations/ sites been considered?		Must be Yes
6.	Verify land is free of settlers, encroachers, or other claims or encumbrances		Must be Yes
7.	Ensure the landowner is not vulnerable*		Must be Yes
8.	VLD must not negatively impact households below the provincial poverty line.		Must be negligible
9.	Is the land obtained through VLD owned by a woman who is the family's sole earner?		VLD is not to be taken from the women-headed family.
10.	Does the VLD involve impacts on minority/ handicapped persons?		Must be negligible.
11.	If yes, what are the impacts on livelihood due to VLD in terms of percentage?		The percentage of impact on the livelihood must not exceed 5%.
C	**VLD Process Requirements**		
12.	The Titleholder should be holding more than the minimum prescribed land;		Minimum 5 kanals.
13.	Verify voluntary donation is not more than 10% of the area of the titleholder's holding		Must be Yes
14.	Verify impacts are minor and not requiring physical relocation of the titleholder		Must be Yes
15.	Have the project authorities confirmed that the land is appropriate for sub-project purposes?		Must be Yes

16.	Ensure land is appropriate for sub-project purposes and will not invite adverse social, health, environment, or safety impacts**		Must be Yes
17.	Verification of the voluntary nature of land donations must be obtained from each of the persons donating land.		Must be Yes
D	**Verify requirements of donation and formalization of donation in the village assembly**		
18.	Verify donation is voluntary and obtain notarized, witness statements in a village assembly		Must be Yes
19.	Ensure titleholder understands they will surrender the land title of donated land and will not have unauthorized access to the houses built on donated land and cannot claim priority treatment		Must be Yes
E	**Due diligence on land ownership and use**		
20.	Type of land rights in the project area		Land rights assessment
21.	Users of land or any occupying parties (Tenants or leaseholders etc.)		Users' identification
22.	Competing claims of ownership or use		Claims identification
23.	Structures and assets on the land		Assets on the proposed land (loss of agriculture, livelihood, assets, loss of economic trees etc.)
24.	Encumbrances on the land		Encumbrances assessment (Legal/ financial, Loans etc.)
F	**Consultation and Disclosure in a Village Assembly**		
25.	Consult with land donors and ensure they understand the terms and conditions of the donation		Must be Yes
26.	Disclose information about the donation process		Must be Yes
27.	Disclose any potential negative impacts on the owner		Must be Yes
28.	Informed consent of person donating land		Consent Agreement
29.	Indicate the concerns raised, if any.		Document the concerns
G	**Monitoring and documentation**		
30.	Verify any land conflicts or conflicting land titling		Must be mentioned and avoided
31.	Establish informed consent of person donating land		Must be Yes and Documented
32.	Inform them they will be deprived of the title as well as any other right to use the land		Must be Yes and Documented
33.	They have the right to refuse to donate the land		Must be Yes and Documented
34.	Information about any other costs involved in the process which the owner has to pay.		Must be Yes and Documented
35.	They will be informed that neither they nor their family members will be able to get the land back after the mutation.		Must be Yes and Documented

36.	The intergenerational effect of the donation on their family, what they can do if they (or their family or heirs) want the land back.		Must be Yes and Documented
37.	The terms and conditions of the land donation must be mutually agreed upon and detailed in a written agreement.		Must be Yes and Documented
38.	Verify donors provide their informed consent		Must be Yes and Documented
39.	Monitor and document the donation process in monitoring reports		Must be Yes and Documented

Footnote:

* Vulnerable persons:
Households (with valid proof), as per provincial poverty line for rural areas;
Households without proof of the same and belonging to the following social categories:
Women headed households with women as sole earners;
Minority/ handicapped persons.

** Adverse social, health, environmental, and safety impacts including but not limited to the potential social conflicts, community health, dust or air quality, occupational and community health, and safety, respectively.

*** Land donation agreement will be signed between the donor and the beneficiary. President of the VRC and authorized representatives of the IP and SPHF will sign as witnesses.

Prepared By: IP	**Verified/Endorsed By: SPHF**	**Approved By:**
Name:	**Name:**	**Name:**
Signature:	**Signature:**	**Signature:**
Date:	**Date:**	**Date:**

Annex 11: Suggested Template for

Quarterly Environment and Social Safeguards Monitoring Report

Note: Based on the progress and E&S monitoring checklists and incidents reports (refer to Annex 8 and 9 above) delivered by the IPs, the SPHF will consolidate the information reported by IPs monthly monitoring checklists/incident reports into quarterly E&S monitoring reports to be disclosed through the websites of the SPHF and the IFIs after approval. The template below can be followed for compilation of the Quarterly E&S Monitoring Reports.

A. Introduction

i. Brief project description and introduction to the monitoring objectives, methodologies, and indicators etc.

B. Review of Physical Progress on Different Project Components

A crisp progress about different project components i.e.

i) Disbursement progress and construction status of housing units.
ii) Construction progress for community Infrastructure/WASH facilities.
iii) Assistance for vulnerable and livelihood support provided.
iv) Measures executed for capacity development and improved community resilience etc.

C. Review of E&S Compliance Status

It may include the progress on:

i) By using screening checklists, activities performed for screening/selection of candidate flood effected settlement and relocation sites for construction of multi-resilient housing units.
ii) Scoping/Assessment of potential adverse Environmental and Social risks for selected settlement and relocation sites (if any),
iii) E & S risks/impacts mitigation options considered, Environment and Social Safeguards documents delivered and executed to comply the Environmental and Social Safeguards requirements outlined in the ESMF,
iv) Incidents about accidental hazards and/or identified ESMF non-compliances encountered and reported by the IPs.
v) Corrective actions considered and implemented against encountered/reported incidents etc.

D. Consultation and information Disclosure Institutional Arrangements

Crisp information about consultation and information disclosure activities may be provided by considering the following clarification.

i) Highlight consultation and information activities regarding a) social and technical assessment, b) validation of damaged housing units eligible for support under project and c) mobilization of beneficiaries for opening of bank accounts and commence of construction activities and d) in-situ

reconstruction of flood damaged housing units and probable options for voluntary relocation.

ii) Consultations and community mobilization activities ensured to clarify and arrive at a consensus on implementation of community infrastructure component.

iii) Specific consultation and information dissemination activities about the vulnerable and the additional assistance and livelihood support measures ensured under the project for vulnerable.

iv) Coordination and consultations with relevant stakeholders for allotment of land title in case of Government land and/or voluntary land donation for settlement/WASH facilities in case of individual/family owned or communal land.

v) Other specific consultations with any other stakeholders including government entities, NGOs, CSOs, and the residents of effected/host settlements i.e. non-beneficiaries etc.

E. Grievance Redress Mechanism

i. Crisp brief about the set-up and functioning of multi-tiered GRM i.e. settlement level VRCs and field level GROs, IP level District Grievance Redress Departments (DGRDs) and the SPHF Level Project GRCs etc.

ii. Summarize grievance recording and resolution processes and include details about the grievances recorded and reported at different levels of the GRM. The information may include but not limited to nature of grievance, recorded dates and organizations involved, actions taken to resolve grievances, and media or community reactions (if any) about reported and resolved grievances at all forums of the established GRM.

F. ESMF, Non-Compliance Risks and Corrective Actions Required

It may include crisp information about potential non-compliance risks and suggested mitigation and corrective actions with implementation timelines considering key points below.

i. E&S non-compliance risks encountered, and accidental hazard incidents reported.

ii. Issue specific mitigation measures, corrective actions recommended with implementation responsibility and timelines. and good practices established.

iii. The good practices and work plan established (staffing, training, and work schedules)

Annex 12*: Photo Log*

Photo log

Implementing Partner's Training Session on E&S Checklist

Gender Sensitization Sessions with Communities

Discussion of WB Team with Communities

Stakeholder Consultations by the Project

Training on GRM and Gender Based Violence

Tree Plantation in Project Area

Annex 13

ADB's SAFEGUARD REQUIREMENT 1: ENVIRONMENT

A. Introduction

1. Safeguard Requirements 1 outlines the requirements that borrowers/clients are required to meet when delivering environmental safeguards for projects supported by the Asian Development Bank (ADB). It discusses the objectives and scope of application and underscores the requirements for undertaking the environmental assessment process. These requirements include assessing impacts, planning, and managing impact mitigations, preparing environmental assessment reports, disclosing information and undertaking consultation, establishing a grievance mechanism, and monitoring and reporting. The document also includes particular environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical cultural resources. The applicability of particular requirements is established through the environmental assessment process and compliance with the requirements is achieved through implementation of environmental management plans agreed to by ADB and the borrower/client.

B. Objectives

2. The objectives are to ensure the environmental soundness and sustainability of projects, and to support the integration of environmental considerations into the project decision-making process.

C. Scope of Application

3. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects).

D. Requirements

1. Environmental Assessment

4. Environmental assessment is a generic term used to describe a process of environmental analysis and planning to address the environmental impacts and risks associated with a project. At an early stage of project preparation, the borrower/client will identify potential direct, indirect, cumulative, and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned NGOs. If potentially adverse environmental impacts and risks are identified, the borrower/client will undertake an environmental assessment as early as possible in the project cycle. For projects with potentially significant adverse impacts that are diverse, irreversible, or unprecedented, the borrower/client will examine alternatives to the project's location, design, technology, and components that would avoid, and, if avoidance is not possible, minimize adverse environmental impacts and risks. The rationale for selecting the project location, design, technology, and components will be properly documented, including, cost-benefit analysis, taking environmental costs and benefits of the various alternatives considered into account. The "no project" alternative will also be considered.

5. The assessment process will be based on current information, including an accurate project description, and appropriate environmental and social baseline data. The environmental assessment will consider all potential impacts and risks of the project on physical, biological, socioeconomic (occupational health and safety, community health and

safety, vulnerable groups, and gender issues, and impacts on livelihoods through environmental media) and physical cultural resources in an integrated way. The project's potential environmental impacts and risks will be reviewed against the requirements presented in this document and applicable laws and regulations of the jurisdictions in which the project operates that pertain to environmental matters, including host country obligations under international law.

6. Impacts and risks will be analyzed in the context of the project's area of influence. This area of influence encompasses (i) the primary project site(s) and related facilities that the borrower/client (including its contractors) develops or controls, such as power transmission corridors, pipelines, canals, tunnels, access roads, borrow pits and disposal areas, and construction camps; (ii) associated facilities that are not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project; (iii) areas and communities potentially affected by cumulative impacts from further planned development of the project, other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that are realistically defined at the time the assessment is undertaken; and (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that might occur without the project or independently of the project. Environmental impacts and risks will also be analyzed for all relevant stages of the project cycle, including preconstruction, construction, operations, decommissioning, and post closure activities such as rehabilitation or restoration.

7. The assessment will identify potential transboundary effects, such as air pollution, increased use or contamination of international waterways, as well as global impacts, such as emission of greenhouse gases and impacts on endangered species and habitats.

8. The environmental assessment will examine whether particular individuals and groups may be differentially or disproportionately affected by the project's potential adverse environmental impacts because of their disadvantaged or vulnerable status, in particular, the poor, women and children, and Indigenous Peoples. Where such individuals or groups are identified, the environmental assessment will recommend targeted and differentiated measures so that adverse environmental impacts do not fall disproportionately on them.

9. Depending on the significance of project impacts and risks, the assessment may comprise a full-scale environmental impact assessment (EIA) for category A projects, an initial environmental examination (IEE) or equivalent process for category B projects, or a desk review. An EIA report includes the following major elements: (i) executive summary, (ii) description of the project, (iii) description of the environment (with comprehensive baseline data), (iv) anticipated environmental impacts and mitigation measures, (v) analysis of alternatives, (vi) environmental management plan(s), (vii) consultation and information disclosure, and (viii) conclusion and recommendations. The annex to this appendix provides further details. An IEE, with its narrower scope, may be conducted for projects with limited impacts that are few, generally site-specific, largely reversible, and readily addressed through mitigation measures.

10. When the project involves existing activities or facilities, relevant external experts will perform environmental audits to determine the existence of any areas where the project may cause or is causing environmental risks or impacts. If the project does not foresee any new major expansion, the audit constitutes the environmental assessment for the project. A typical environmental audit report includes the following major elements: (i) executive summary; (ii) facilities description, including both past and current activities; (iii) summary of national, local, and any other applicable environmental laws, regulations, and standards; (iv) audit and site investigation procedure; (v) findings and areas of concern; and (vi) corrective

action plan that provides the appropriate corrective actions for each area of concern, including costs and schedule.

11. When the project involves the development of or changes to policies, plans, or programs that are likely to have significant environmental impacts that are regional or sectoral, strategic environmental assessment will be required. A strategic environmental assessment report will include (i) an analysis of the scenario, (ii) an assessment of long-term and indirect impacts, (iii) a description of the consultation process, and (iv) an explanation of option selection.

2. Environmental Planning and Management

12. The borrower/client will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Where impacts and risks cannot be avoided or prevented, mitigation measures and actions will be identified so that the project is designed, constructed, and operated in compliance with applicable laws and regulations and meets the requirements specified in this document. The level of detail and complexity of the environmental planning documents and the priority of the identified measures and actions will be commensurate with the project's impacts and risks. Key considerations include mitigation of potential adverse impacts to the level of "no significant harm to third parties", the polluter pays principle, the precautionary approach, and adaptive management.

13. If some residual impacts are likely to remain significant after mitigation, the EMP will also include appropriate compensatory measures (offset) that aim to ensure that the project does not cause significant net degradation to the environment. Such measures may relate, for instance, to conservation of habitat and biodiversity, preservation of ambient conditions, and greenhouse gas emissions. Monetary compensation in lieu of offset is acceptable in exceptional circumstances, provided that the compensation is used to provide environmental benefits of the same nature and is commensurate with the project's residual impact.

14. The EMP will define expected outcomes as measurable events to the extent possible and will include performance indicators or targets that can be tracked over defined periods. It will be responsive to changes in project design, such as a major change in project location or route, or in technology, unforeseen events, and monitoring results.

15. At times, a third party's involvement will influence implementation of the EMP. A third party may be, inter alia, a government agency, a contractor, or an operator of an associated facility. When the third-party risk is high and the borrower/client has control or influence over the actions and behavior of the third party, the borrower/client will collaborate with the third party to achieve the outcome consistent with the requirements for the borrower/client. Specific actions will be determined on a case-by-case basis.

16. The borrower/client will use qualified and experienced experts to prepare the environmental assessment and the EMP. For highly complex and sensitive projects, independent advisory panels of experts not affiliated with the project will be used during project preparation and implementation.

3. Information Disclosure

17. The borrower/client will submit to ADB the following documents for disclosure on ADB's website:

(i) a draft full EIA (including the draft EMP) at least 120 days prior to ADB Board consideration, and/or environmental assessment and review frameworks before project appraisal, where applicable;

(ii) the final EIA/IEE;

(iii) a new or updated EIA/IEE and corrective action plan prepared during project implementation, if any; and

(iv) the environmental monitoring reports.

18. The borrower/client will provide relevant environmental information, including information from the documents in para. 17 in a timely manner, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. For illiterate people, other suitable communication methods will be used.

4. Consultation and Participation

19. The borrower/client will carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. Meaningful consultation is a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;[72] (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues. Consultation will be carried out in a manner commensurate with the impacts on affected communities. The consultation process and its results are to be documented and reflected in the environmental assessment report.

5. Grievance Redress Mechanism

20. The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance. The grievance mechanism should be scaled to the risks and adverse impacts of the project. It should address affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no costs and without retribution. The mechanism should not impede access to the country's judicial or administrative remedies. The affected people will be appropriately informed about the mechanism.

6. Monitoring and Reporting

21. The borrower/client will monitor and measure the progress of implementation of the EMP. The extent of monitoring activities will be commensurate with the project's risks and impacts. In addition to recording information to track performance, the borrower/client will undertake inspections to verify compliance with the EMP and progress toward the expected outcomes. For projects likely to have significant adverse environmental impacts, the borrower/client will retain qualified and experienced external experts or qualified NGOs to verify its monitoring information. The borrower/client will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The borrower/client will implement these corrective actions and follow up on these actions to ensure their effectiveness.

22. The borrower/client will prepare periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. The borrower/client will submit at least semiannual monitoring reports during construction for

[72] For environment category A projects, such consultations will necessarily include consultations at the early stage of EIA field work and when the draft EIA report is available during project preparation, and before project appraisal by ADB.

projects likely to have significant adverse environmental impacts, and quarterly monitoring reports for highly complex and sensitive projects. For projects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis. Such periodic reports will be posted in a location accessible to the public. Project budgets will reflect the costs of monitoring and reporting requirements.

7. Unanticipated Environmental Impacts

23. Where unanticipated environmental impacts become apparent during project implementation, the borrower/client will update the environmental assessment and EMP or prepare a new environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address those impacts.

8. Biodiversity Conservation and Sustainable Natural Resource Management

24. The borrower/client will assess the significance of project impacts and risks on biodiversity[73] and natural resources as an integral part of the environmental assessment process specified in paras. 4–10. The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity.

a. Modified Habitats

25. In areas of modified habitat, where the natural habitat has apparently been altered, often through the introduction of alien species of plants and animals, such as in agricultural areas, the borrower/client will exercise care to minimize any further conversion or degradation of such habitat, and will, depending on the nature and scale of the project, identify opportunities to enhance habitat and protect and conserve biodiversity as part of project operations.

b. Natural Habitats

26. In areas of natural habitat[74], the project will not significantly convert or degrade[75] such habitat, unless the following conditions are met:

(i) No alternatives are available.

(ii) A comprehensive analysis demonstrates that the overall benefits from the project will substantially outweigh the project costs, including environmental costs.

(iii) Any conversion or degradation is appropriately mitigated.

27. Mitigation measures will be designed to achieve at least no net loss of biodiversity. They may include a combination of actions, such as post project restoration of habitats, offset of losses through the creation or effective conservation of ecologically comparable areas that are managed for biodiversity while respecting the ongoing use of such biodiversity by Indigenous Peoples or traditional communities, and compensation to direct users of

[73] The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

[74] Land and water areas where the biological communities are formed largely by native plant and animal species, and where human activity has not essentially modified the area's primary ecological functions.

[75] Significant conversion or degradation is (i) the elimination or severe diminution of the integrity of a habitat caused by a major, long-term change in land or water use; or (ii) the modification of a habitat that substantially reduces the habitat's ability to maintain viable populations of its native species. Significant conversion may include, for example, land clearing; replacement of natural vegetation (for example, by crops or tree plantations); permanent flooding (by a reservoir for instance); drainage, dredging, filling, or canalization of wetlands; or surface mining.

biodiversity.

c. Critical Habitats

28. No project activity will be implemented in areas of critical habitat[76] unless the following requirements are met:

(i) There are no measurable adverse impacts, or likelihood of such, on the critical habitat which could impair its high biodiversity value or the ability to function.

(ii) The project is not anticipated to lead to a reduction in the population of any recognized endangered or critically endangered species[77] or a loss in area of the habitat concerned such that the persistence of a viable and representative host ecosystem be compromised.

(iii) Any lesser impacts are mitigated in accordance with para. 27.

29. When the project involves activities in a critical habitat, the borrower/client will retain qualified and experienced external experts to assist in conducting the assessment.

d. Legally Protected Areas

30. In circumstances where some project activities are located within a legally protected area, in addition to the requirement specified in para. 28, the borrower/client will meet the following requirements:

(i) Act in a manner consistent with defined protected area management plans.

(ii) Consult protected area sponsors and managers, local communities, and other key stakeholders on the proposed project.

(iii) Implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area.

e. Invasive Alien Species

31. The borrower/client will not intentionally introduce any new alien species (that is, species not currently established in the country or region of the project) unless carried out in accordance with the existing regulatory framework for such introduction, if such a framework is present, or unless the introduction is subject to a risk assessment (as part of the environmental assessment) to determine the potential for invasive behavior. Under no circumstances must species known to be invasive be introduced into new environments. The borrower/client will undertake assessment of the possibility of accidental or unintended introduction of such invasive alien species and identify measures to minimize the potential for release.

f. Management and Use of Renewable Natural Resources

32. Renewable natural resources will be managed in a sustainable manner. Sustainable resource management is management of the use, development, and protection of resources in a way, or at a rate, that enables people and communities, including Indigenous Peoples,

[76] Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic, or cultural importance to local communities. Critical habitats include those areas either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization's world natural heritage sites.

[77] As defined by the Word Conservation Union's Red List of Threatened Species or as defined in any national legislation.

to provide for their current social, economic, and cultural well-being while also sustaining the potential of those resources to meet the reasonably foreseeable needs of future generations. This includes safeguarding the life-supporting capacity of air, water, and soil ecosystems. Where possible, the borrower/client will demonstrate the sustainable management of resources through an appropriate system of independent certification.

9. Pollution Prevention and Abatement

33. During the design, construction, and operation of the project the borrower/client will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines.[78] These standards contain performance levels and measures that are normally acceptable and applicable to projects. When host country regulations differ from these levels and measures, the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in this document.

a. Pollution Prevention, Resource Conservation, and Energy Efficiency

34. The borrower/client will avoid, or where avoidance is impossible, will minimize or control the intensity or load of pollutant emission and discharge. In addition, the borrower/client will examine and incorporate in its operations resource conservation and energy efficiency measures consistent with the principles of cleaner production. When the project has the potential to constitute a significant source of emissions in an already degraded area, strategies that help improve ambient conditions, such as evaluating alternative project locations and considering emissions offsets, will be introduced.

b. Wastes

35. The borrower/client will avoid, or where avoidance is not possible, will minimize or control the generation of hazardous and nonhazardous wastes and the release of hazardous materials resulting from project activities. Where waste cannot be recovered or reused, it will be treated, destroyed, and disposed of in an environmentally sound manner. If the generated waste is considered hazardous, the client will explore reasonable alternatives for its environmentally sound disposal considering the limitations applicable to its transboundary movement.[79] When waste disposal is conducted by third parties, the borrower/client will use contractors that are reputable and legitimate enterprises licensed by the relevant regulatory agencies.

c. Hazardous Materials

36. The borrower/client will avoid the manufacture, trade, and use of hazardous substances and materials subject to international bans or phaseouts because of their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer[80] and will consider the use of less hazardous substitutes for such chemicals and materials.

d. Pesticide Use and Management

37. The environmental assessment will ascertain that any pest and/or vector management activities related to the project are based on integrated pest management approaches and aim to reduce reliance on synthetic chemical pesticides in agricultural and public health projects. The borrower/client's integrated pest/vector management program will

[78] World Bank Group, 2007. Environmental, Health, and Safety General Guidelines. Washington, DC.
[79] Consistent with the objectives of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes.
[80] Consistent with the objectives of the Stockholm Convention on Persistent Organic Pollutants and the Montreal Protocol on Substances that Deplete the Ozone Layer.

entail coordinated use of pest and environmental information along with available pest/vector control methods, including cultural practices, biological, genetic and, as a last resort, chemical means to prevent unacceptable levels of pest damage. The health and environmental risks associated with pest management should be minimized with support, as needed, to institutional capacity development, to help regulate and monitor the distribution and use of pesticides and enhance the application of integrated pest management.

38. The borrower/client will not use products that fall in World Health Organization Recommended Classification of Pesticides by Hazard Classes Ia (extremely hazardous) and Ib (highly hazardous) or Class II (moderately hazardous), if the project host country lacks restrictions on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply and dispose of these products properly. The borrower/client will handle, store, apply and dispose of pesticides in accordance with international good practice such as the Food and Agricultural Organization's International Code of Conduct on the Distribution and Use of Pesticides.

e. Greenhouse Gas Emissions

39. The borrower/client will promote the reduction of project-related anthropogenic greenhouse gas emissions in a manner appropriate to the nature and scale of project operations and impacts. During the development or operation of projects that are expected to or currently produce significant quantities of greenhouse gases,[81] the borrower/client will quantify direct emissions from the facilities within the physical project boundary and indirect emissions associated with the off-site production of power used by the project. The borrower/client will conduct quantification and monitoring of greenhouse gas emissions annually in accordance with internationally recognized methodologies[82]. In addition, the borrower/client will evaluate technically and financially feasible and cost-effective options to reduce or offset project-related greenhouse gas emissions during project design and operation and pursue appropriate options.

10. Health and Safety

a. Occupational Health and Safety

40. The borrower/client will provide workers[83] with a safe and healthy working environment, taking into account risks inherent to the particular sector and specific classes of hazards in the borrower's/client's work areas, including physical, chemical, biological, and radiological hazards. The borrower/client will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work by (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.

41. The borrower/client will apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the

[81] Even though the significance of a project's contribution to greenhouse gas emissions varies between industry sectors, the significance threshold to be considered for these requirements is generally 100,000 tons of carbon dioxide equivalent per year for the aggregate emissions of direct sources and indirect sources associated with electricity purchased for own consumption.

[82] Estimation methodologies are provided by the Intergovernmental Panel on Climate Change (IPCC), various international organizations, and relevant host country agencies.

[83] Including nonemployee workers engaged by the borrower/client through contractors or other intermediaries to work on project sites or perform work directly related to the project's core functions.

World Bank Group's *Environment, Health, and Safety Guidelines* (footnote 7).

b. Community Health and Safety

42. The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts. These measures will favor the prevention or avoidance of risks and impacts over their minimization and reduction. Consideration will be given to potential exposure to both accidental and natural hazards, especially where the structural elements of the project are accessible to members of the affected community or where their failure could result in injury to the community. The borrower/client will avoid or minimize the exacerbation of impacts caused by natural hazards, such as landslides or floods, that could result from land use changes due to project activities.

43. The borrower/client will inform affected communities of significant potential hazards in a culturally appropriate manner. The borrower/client will be prepared to respond to accidental and emergency situations. This preparation will include response planning document(s) that addresses the training, resources, responsibilities, communications, procedures, and other aspects required to respond effectively to emergencies associated with project hazards. Appropriate information about emergency preparedness and response activities, resources, and responsibilities will be disclosed to affected communities.

44. When structural elements or components, such as dams, tailings dams, or ash ponds, are situated in high-risk locations and their failure or malfunction may threaten the safety of communities, the borrower/client will engage qualified and experienced experts, separate from those responsible for project design and construction, to conduct a review as early as possible in project development and throughout project design, construction, and commissioning.

11. Physical Cultural Resources

45. The borrower/client is responsible for siting and designing the project to avoid significant damage to physical cultural resources.[84] Such resources likely to be affected by the project will be identified, and qualified and experienced experts will assess the project's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process specified in paras. 4–10.

46. When a project may affect physical cultural resources, the borrower/client will consult with affected communities who use, or have used them within living memory, for long-standing cultural purposes to identify physical cultural resources of importance and to incorporate the views of the affected communities on such resources into the borrower's/client's decision-making process. Consultation will also involve relevant national or local regulatory agencies that are entrusted with protecting physical cultural resources. The findings are disclosed as part of, and in the same manner as, the environmental assessment report, except when such disclosure would compromise or jeopardize the safety or integrity of the physical cultural resources.

47. When the project is likely to have adverse impacts on physical cultural resources, the borrower/client will identify appropriate measures for avoiding or mitigating these impacts as part of the environmental planning process specified in paras. 12–16. These measures may range from avoidance to full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.

48. When the proposed location of a project is in areas where physical cultural resources

[84] Defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

are expected to be found as determined during the environmental assessment process, chance finds procedures will be included in the EMP. Chance finds shall not be disturbed until an assessment by a competent specialist is made and actions consistent with these requirements are identified.

49. The project will not remove any physical cultural resources unless the following conditions are met:

(i) No alternatives to removal are available.

(ii) The overall benefits of the project substantially outweigh the anticipated cultural heritage loss from removal.

(iii) Any removal is conducted in accordance with relevant provisions of national and/or local laws, regulations, and protected area management plans and national obligations under international laws and employs the best available techniques.

Attachment 1 to Annex 13

OUTLINE OF AN ENVIRONMENTAL IMPACT ASSESSMENT REPORT

This outline is part of the Safeguard Requirements. An environmental assessment report is required for all environment category 'A' and 'B' projects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks. A typical EIA report contains the following major elements, and an IEE may have a narrower scope depending on the nature of the project. The substantive aspects of this outline will guide the preparation of environmental impact assessment reports, although not necessarily in the order shown.

A. Executive Summary

This section describes concisely the critical facts, significant findings, and recommended actions.

B. Policy, Legal, and Administrative Framework

This section discusses the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

C. Description of the Project

This section describes the proposed project; its major components; and its geographic, ecological, social, and temporal context, including any associated facility required by and for the project (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the project's layout and components, the project site, and the project's area of influence.

D. Description of the Environment (Baseline Data)

This section describes relevant physical, biological, and socioeconomic conditions within the study area. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

E. Anticipated Environmental Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate.

F. Analysis of Alternatives

This section examines alternatives to the proposed project site, technology, design, and operation - including the no project alternative - in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. It also states the basis for selecting the particular project design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

G. Information Disclosure, Consultation, and Participation

This section:

(i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;

(ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

H. Grievance Redress Mechanism

This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

I. Environmental Management Plan

This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

(i) Mitigation:

(a) identifies and summarizes anticipated significant adverse environmental impacts and risks;

(b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and

(c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

(ii) Monitoring:

(a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and

(b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

(iii) Implementation arrangements:

(a) specifies the implementation schedule showing phasing and coordination with overall project implementation;

(b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and

(c) estimates capital and recurrent costs and describes sources of funds for implementing

the environmental management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment and provides recommendations.

Attachment 2 to Annex 13

Rapid Environmental Assessment (REA) Checklist

(Housing)

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following areas:			
▪ Underground utilities			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
▪ Bay			
B. Potential Environmental Impacts Will the Project cause…			
▪ Encroachment on historical/cultural areas?			

Screening Questions	Yes	No	Remarks
▪ Encroachment on precious ecology (e.g. sensitive or protected areas)?			
▪ Impacts on the sustainability of associated sanitation and solid waste disposal systems?			
▪ Dislocation or involuntary resettlement of people?			
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?			
▪ Accident risks associated with increased vehicular traffic, leading to loss of life?			
▪ Increased noise and air pollution resulting from increased traffic volume?			
▪ Occupational and community health and safety risks?			
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?			
▪ Generation of dust in sensitive areas during construction?			
▪ Requirements for disposal of fill, excavation, and/or spoil materials?			
▪ Noise and vibration due to blasting and other civil works?			
▪ Long-term impacts on groundwater flows as result of needing to drain the project site prior to construction?			
▪ Long-term impacts on local hydrology as a result of building hard surfaces in or near the building?			
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ Social conflicts if workers from other regions or countries are hired?			
▪ Risks to community safety caused by fire, electric shock, or failure of the buildings safety features during operation?			
▪ Risks to community health and safety caused by management and disposal of waste?			

Screening Questions	Yes	No	Remarks
▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			

Rapid Environmental Assessment (REA) Checklist

(Water Supply and Sanitation for WASH component)

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following areas:			
▪ Underground utilities			
▪ Cultural heritage site			
▪ Protected Area			
▪ Wetland			
▪ Mangrove			
▪ Estuarine			
▪ Buffer zone of protected area			
▪ Special area for protecting biodiversity			
▪ Bay			

B. Potential environmental impacts Will the project cause…			
▪ Pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?			
▪ impairment of historical/cultural monuments/areas and loss/damage to these sites?			
▪ hazard of land subsidence caused by excessive ground water pumping?			
▪ social conflicts arising from displacement of communities?			
▪ conflicts in abstraction of raw water for water supply with other beneficial water uses for surface and ground waters?			
▪ unsatisfactory raw water supply (e.g., excessive pathogens or mineral constituents)?			
▪ delivery of unsafe water to distribution system?			
▪ inadequate protection of intake works or wells, leading to pollution of water supply?			
▪ over pumping of ground water, leading to salinization and ground subsidence?			
▪ excessive algal growth in storage reservoir?			
▪ increase in production of sewage beyond capabilities of community facilities?			
▪ inadequate disposal of sludge from water treatment plants?			
▪ inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances and protect facilities?			
▪ impairments associated with transmission lines and access roads?			
▪ health hazards arising from inadequate design of facilities for receiving, storing, and handling of chlorine and other hazardous chemicals.			
▪ health and safety hazards to workers from handling and management of chlorine used for disinfection, other contaminants, and biological and physical hazards during project construction and operation?			

Screening Questions	Yes	No	Remarks
▪ dislocation or involuntary resettlement of people?			
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples, or other vulnerable groups?			
▪ noise and dust from construction activities?			
▪ increased road traffic due to interference of construction activities?			
▪ continuing soil erosion/silt runoff from construction operations?			
▪ delivery of unsafe water due to poor O&M treatment processes (especially mud accumulations in filters) and inadequate chlorination due to lack of adequate monitoring of chlorine residuals in distribution systems?			
▪ delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?			
▪ accidental leakage of chlorine gas?			
▪ excessive abstraction of water affecting downstream water users?			
▪ competing uses of water?			
▪ increased sewage flow due to increased water supply?			
▪ increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant?			
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?			
▪ social conflicts if workers from other regions or countries are hired?			
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during operation and construction?			
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?			

Annex 14 Selection Criteria for the Beneficiaries of Housing Reconstruction and Community Infrastructure

A. Selection Criteria for the Beneficiaries of Housing Reconstruction Project

(i) The household affected (fully-damaged) by 2022 floods and validated as an eligible beneficiary by SPHF;
(ii) The household located in the declared as a village or habitant area by respective government (e.g., SPHF) or sought permission of reconstruction works with no objection;
(iii) The housing unit located non-hazardous (e.g., flood-prone) area; and
(iv) The household located within their own land, state land, or communal land with agreement of reconstruction of housing by the community (or the land owner);
(v) The housing unit where village organization (e.g., village reconstruction organization) is established; and
(vi) Other housing units complying with GoS and SPHF's updated criteria for housing reconstruction for flood-affectees, subject to ADB's agreement.

B. Selection Criteria for the Beneficiaries of Community Infrastructure Project (outside of the house)

(i) The settlement where number of housing units is below 150 and the houses are reported as 100% damaged will be given priority. ;
(ii) The settlement severely affected by 2022 floods (e.g., percentage of housing units damaged by the floods) and validated as an eligible settlement to be benefited by SPHF;
(iii) The settlement declared as a village or habitant area by respective government (e.g., SPHF) or sought permission of reconstruction works with no objection;
(iv) The settlement where drinking water supply (e.g., handpump), sanitation (e.g., sewerage, septic tank), and drainage has been severely affected by the 2022 floods (or not properly established for the essential community's sustainability);
(v) The settlement where the proposed community infrastructure is located within the state land or communal land with agreement of (re)construction of community infrastructure project by the community (or the landowner);
(vii) The settlement where village organization (e.g., village reconstruction organization) is well established and has a willingness to (re)construct the community infrastructure through a community-led project (i.e., construction, and O&M) with the support from IPs and SPHF;
(viii) The settlement agrees to generate savings on monthly basis for O&M of the community infrastructure project to support the required O&M cost; and
(ix) Other settlements complying with GoS and SPHF's updated criteria for community infrastructure for flood-affectees, subject to ADB's agreement.

C. Selection Criteria for the Beneficiaries of Community Infrastructure Project (inside of the house)

(i) The household located in the selected settlement by criteria described in B above;
(ii) The household falls below the poverty line (e.g., PMT Score below 26);
(iii) The women-headed household or household with a disability; and
(iv) Other vulnerable households complying with GoS and SPHF's requested criteria, subject to ADB's agreement.