



**GOVERNMENT OF SINDH**  
Irrigation Department

**PROJECT MANAGEMENT TEAM**  
**SINDH RESILIENCE PROJECT**  
(IRRIGATION COMPONENT)

CREDIT NO. 5888-PK

# **ABBREVIATED RESETTLEMENT ACTION PLAN (ARAP)**

**FOR MS, BU, KUKA, PB AND KOTRI GUIDE BUNDS EMBANKMENTS OF INDUS RIVER**



**SINDH RESILIENCE PROJECT (IRRIGATION COMPONENT)**

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**FINAL VERSION**



**S I N D H**  
**RESILIENCE**  
**PROJECT**  
SINDH IRRIGATION DEPARTMENT



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This document and its contents have been prepared and are intended solely for the information and use of the Government of Sindh, Irrigation Department in relation to the **SINDH RESILIENCE PROJECT (SRP)**.

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# TABLE OF CONTENTS

<b>LIST OF ACRONYMS .....</b>	<b>v</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>E-i</b>
<b>1 PROJECT DESCRIPTION .....</b>	<b>1</b>
1.1 Background of SRP .....	1
1.2 SRP Components.....	1
1.3 Background of Sub-Projects .....	2
1.4 Subproject Categorization .....	2
1.5 Sub-Projects Location .....	3
1.6 Project Proponent.....	4
1.7 Engineering Baseline and Details.....	4
1.7.1 Existing Condition and Problems of the Sub-Projects.....	4
1.7.2 Proposed Rehabilitation Works .....	6
1.8 Need of the Study.....	6
1.9 Alternative Options .....	7
1.10 Objectives of the Resettlement Action Plan .....	7
<b>2 SOCIO-ECONOMIC ASSESSMENT AND CENSUS SURVEY .....</b>	<b>8</b>
2.1 Background .....	8
2.2 Scope of Land Acquisition and Resettlement .....	8
2.3 Approach and Methodology.....	8
2.3.1 Census Survey .....	8
2.3.2 Village Profile .....	8
2.3.3 Pretesting of Questionnaires .....	9
2.3.4 Women Survey.....	10
2.3.5 Collection of Secondary Data .....	11
2.3.6 Collection of Primary Data .....	11
2.4 Sub-Project Resettlement Impacts .....	11
2.5 Methodology for Census Survey.....	11
2.6 Affected Persons.....	12
2.7 Eligibility Criteria.....	12
2.8 Valuation of Assets.....	14
2.9 Cut-off Date.....	15
2.10 Entitlement Matrix.....	15
2.11 Timeline of Relocation by Project Component .....	16
2.12 Procedure for Payment .....	16
2.13 Standard Rates Adopted for Assets Valuation.....	16
2.14 Updating the RAP .....	17
<b>3 POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK .....</b>	<b>18</b>
3.1 Legal Background .....	18
3.2 Land Acquisition.....	18
3.3 World Bank’s Involuntary Resettlement Policy (OP 4.12) .....	18
3.4 Environmental and Social Management Framework and Resettlement Policy Framework.....	20
<b>4 IMPACT ASSESSMENT .....</b>	<b>21</b>
4.1 Identification of Affected Persons .....	21
4.2 Impacts on Privately Owned Structures.....	24
4.3 Impacts on Community Structures.....	25
4.4 Impacts on Commercial Structures.....	25
4.5 Construction Type of Affected structures.....	25



4.6	Impacts on Vulnerable Groups .....	25
4.7	Affected Trees .....	26
4.8	Anticipated Crop Losses.....	26
4.9	Socio-Economic Profile of Project Corridor.....	26
4.10	Cropping Pattern .....	27
4.11	Mechanism of Conflict Resolution .....	27
<b>5</b>	<b>INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION.....</b>	<b>29</b>
5.1	Introduction .....	29
5.2	Objectives of Consultation.....	29
5.3	Consultation with Project Affected Person.....	29
5.4	Consultation with Affectees .....	30
5.5	Community Consultations.....	31
5.5.1	Findings of Public Consultation with Male Community Members .....	32
5.5.2	Findings of Public Consultation with Female Community Members .....	36
<b>6</b>	<b>COMPENSATION, RELOCATION AND INCOME RESTORATION .....</b>	<b>37</b>
6.1	General .....	37
6.2	Relocation Options.....	37
6.3	Compensation for Affected Assets .....	38
<b>7</b>	<b>INSTITUTIONAL ARRANGEMENTS.....</b>	<b>39</b>
7.1	Project Management Responsibilities.....	39
7.2	Project Management Team .....	39
7.2.1	Project Implementation Support and Supervision Consultant (PISSC) .....	41
7.2.2	Environmental/Social Monitoring and Evaluation (ESMEC) Consultant .....	41
7.2.3	The Contractor .....	41
7.3	Grievance Redressal / Compensation Mechanism .....	42
<b>8</b>	<b>RESETTLEMENT BUDGET AND FINANCING .....</b>	<b>43</b>
8.1	Introduction .....	43
8.2	Calculations of Compensation Amounts .....	43
8.3	Resettlement Budget.....	43
<b>9</b>	<b>IMPLEMENTATION SCHEDULE.....</b>	<b>44</b>
9.1	Introduction .....	44
9.2	Implementation Schedule .....	44
<b>10</b>	<b>MONITORING AND EVALUATION .....</b>	<b>46</b>
10.1	Introduction .....	46
10.2	RAP Implementation .....	46
10.3	Monitoring of RAP .....	46
10.4	Internal Monitoring.....	46
10.5	External Monitoring .....	46
10.6	Grievances Redress Mechanism (GRM) .....	47
10.7	Reporting .....	47



## LIST OF TABLES

Table 1: Proposed Mitigation Measures .....	7
Table 2: Entitlement Matrix .....	12
Table 3: Detailed Cost Estimates for RAP Implementation.....	14
Table 4: Cutt-off Date.....	15
Table 5: Eligibility and Entitlement Matrix.....	15
Table 6: Categories of Affected Structures.....	21
Table 7: Number of people, household associated with different categories .....	24
Table 8: Approximate Cost (Contingency Cost) for Crops Compensation .....	26
Table 9: Issues along with Project Response.....	30
Table 10: Summary and Schedule of Stakeholder Consultations.....	31
Table 11: Number of affected structures, people and compensation.....	37
Table 12: Key Resettlement Options.....	38
Table 13: Detailed Cost Estimates for RAP Implementation.....	43

## LIST OF FIGURES

Figure 1: Location of the Embankments Sub-projects .....	3
Figure 2: Typical Cross-Section .....	4
Figure 3: Institutional Arrangement for Implementation of RAP.....	40
Figure 4: Tentative Implementation Schedule .....	45

## LIST OF ANNEXURES

ANNEXURE 1:	PRE PROJECT CONDITIONS OF EXISTING BUNDS
ANNEXURE-2:	SITE SPECIFIC PHOTOGRAPHS OF STRUCTURES LIKELY TO BE AFFECTED
ANNEXURE 3:	SINDH RESILIENCE PROJECT (SRP) LIST OF AFFECTED STRUCTURES AND ESTIMATED COST
ANNEXURE 4:	LIST OF PARTICIPANTS IN THE CONSULTATIVE / DISCLOSURE WORKSHOP



## LIST OF ACRONYMS

ACE	Associated Consulting Engineers (Pvt.) Ltd
ARAP	Abbreviated Resettlement Action Plan
BP	Bank Policy
BU	Bughar Ucheto
COI	Corridor of Impacts
DACREP	Disaster and Climate Resilience Enhancement Project
DC	Deputy Commissioner
EIA	Environmental Impacts Assessment
ESIA	Environmental and Social Impacts Assessment
ESMECs	Environmental/Social Monitoring and Evaluation Consultants
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMU	Environmental and Social Management Unit
ESU	Environmental and Social Unit
GoS	Government of Sindh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
MS	Mulchand Shah Bunder
NGO	Non-Government Organization
OP	Operational Policy
PAP	Project Affected Person
PC-I	Pakistan Planning Commission Form – 1 Appraisal of Development Project
PD	Project Director
PISSC	Project Implementation Support and Supervision Consultants
P&D	Planning and Development Department
PKR	Pakistani Rupee
PDMA	Provincial Disaster Management Authority
PMT	Project Management Team
PSC	Project Steering Committee
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SH	Sunda Hilaya
SID	Sindh Irrigation Department
WB	World Bank



## EXECUTIVE SUMMARY

### Background

The Government of Sindh through the Sindh Irrigation Department intends to rehabilitate and improve Punnah Baghar (PB bund), Mulchand Shah Bander (MS bund), Baghar Uchito (BU bund), KUKA and Kotri Guide Bunds of Indus River under the World Bank financed Sind Resilience Project (SRP). The present Resettlement Action Plan (RAP) has been prepared to address the resettlement impacts/issues of the proposed embankment rehabilitation and improvement works in compliance with RPF and World Bank safeguard policies.

### Environmental and Social Management Framework and Resettlement Policy Framework (ESMF/RPF)

The SRP project envisages a number of interventions including improving / rehabilitating the degraded reaches of embankments of Indus River, construction of small detention dams in water scarce districts of the province. An Environmental and Social Management Framework and Resettlement Policy Framework (ESMF/RPF) was prepared (i) to identify the potential generic adverse environmental and social impacts of the project, (ii) to propose mitigation measures to address these potential impacts and (iii) finally, to provide basic screening criteria for selecting the sub-projects to be undertaken under SRP.

### Subproject Categorization

The implementation of the sub-projects may cause resettlement issues as a result of evacuating the construction area of RoW. For execution of civil works, partial demolishing of permanent residential structures, dislocation of small business structures of the Squatters/Informal Settlers and felling of trees within the RoW may have to be required. Therefore, the resettlement plan has been prepared to address the resettlement issues within the RoW and to take care of the affected persons in order to execute the sub-projects in a sustainable manner. The screening criteria for the sub-project devised in **Table 1** of SRP ESMF/RPF (based on the World Bank environmental screening process) have been followed and as a result, the proposed sub-project has been categorized as Category- A. However these sub-projects are likely to cause low to moderate level of environmental and/or social impacts and are in accordance with categorization criteria as specified in the ESMF/RPF. In addition to RAP, an Environmental and Social Impacts Assessment (ESIA) Report of these projects was prepared and submitted already to the World Bank.

### Implementation Schedule/Plan

A tentative implementation schedule has been prepared for the compensation and assistance of Project Affected Persons (PAPs) identified in this Resettlement Action Plan (RAP). In addition to the implementation schedule, RAP also includes the policies and procedures for compensating and assisting the project affected persons and complete disclosure of project documents to the public in accordance with World Bank safeguard policies.









of the PISCC and they proposed following engineering solution to protect the community structures. Imambargah buildings and school are surrounded by a brick masonry boundary wall, which is about 5 feet tall. The platform is at RL 50, which is about 1.6 feet above maximum recorded flood water level. Since the relocation of the Imambargah buildings and school is not possible, however, outside the boundary wall the protection of entire slope shall be required. During project works, some disturbance may occur to building users, but they have consented to allow that construction.

### **Resettlement Budget**

Total estimated cost for the implementation of this Resettlement Action Plan (RAP) is expected to be PKR 4.533 million. In addition to the compensation cost of affected houses and other structures within RoW, this Resettlement Budget also includes the livelihood allowance, shifting / transportation allowance and subsistence allowance.

### **Monitoring and Evaluation of RAP**

Smooth and transparent implementation of the project requires both internal and external monitoring and evaluation, which will need to be conducted according to the project activity schedule. The monitoring and evaluation reports will be prepared and submitted to Project Management Team (PMT) and World Bank. The PMT has already hired the services of Environment/Social Monitoring and Evaluation Consultants (ESMECs) who will also monitor and evaluate project implementation impact in the light of project design.



# 1 PROJECT DESCRIPTION

## 1.1 Background of SRP

Pakistan is exposed to a number of adverse natural events and has experienced a wide range of disasters over the past 70 years, including floods, earthquakes, droughts, cyclones and tsunamis. Exposure and vulnerability to hazards is further exacerbated by a rapid population growth, growing urbanization, environmental degradation and shifting of climatic patterns that can result in the occurrence of increasingly severe natural disasters. Over the past decade, damages and losses resulting from natural disasters in Pakistan have exceeded USD 18 billion. As the population and asset base of Pakistan increases, so does its economic exposure to natural disasters.

The Government of Sindh has initiated a project to enhance disaster and climate resilience; increase the technical capacity of Government entities to manage natural disasters and climate variability; construction of small dams and support restoration of flood protection infrastructure on Indus River. The project designated as Sindh Resilience Project (SRP) is being financed by World Bank and will be completed in five years' period. The location plan of SRP project is shown in **Figure 1**.

## 1.2 SRP Components

SRP is being implemented through the Provincial Disaster Management Authority and Sindh Irrigation Department and have the following components:

### **COMPONENT 1: STRENGTHENING DISASTER AND CLIMATE RISK MANAGEMENT**

The Component will primarily focus on key disaster management institutions in terms of strengthening operational systems and capacities at the provincial and district levels. In addition, the Component will support other departments at the Government of Sindh – through the Provincial Disaster Management Authority (PDMA) Sindh) to develop greater 'fiscal resilience' through strengthening financial capacity and risk financing mechanisms, and mainstream disaster risk reduction in development planning and budgeting processes. The following are its sub-components:

- Subcomponent 1.1: Improving Risk Identification and Using Risk Information for Development Decision-making
- Subcomponent 1.2: Strengthening Disaster Risk Management Agencies
- Subcomponent 1.3: Enhancing Fiscal Resilience
- Subcomponent 1.4: Project Implementation Support to PDMA Sindh

### **COMPONENT 2: IMPROVING INFRASTRUCTURE AND SYSTEMS FOR RESILIENCE**

This Component will primarily support restoration and improvement of embankments at high risk sites along the Indus for protection against riverine floods as well as construction of small rainwater-fed recharge dams in drought prone regions in Sindh. In addition the Component will



assist the Sindh Irrigation Department towards implementing project interventions and increasing operational efficiency. The following are its sub-components:

Subcomponent 2.1: Flood Protection Works

Subcomponent 2.2: Construction of Small Recharge Dams to Address Drought and Flash Flooding Risks

Subcomponent 2.3: Technical Assistance to Sindh Irrigation Department

Subcomponent 2.4: Project Implementation Support to Sindh Irrigation Department

### **COMPONENT 3: CONTINGENT EMERGENCY RESPONSE COMPONENT**

Following an adverse natural event that causes a major natural disaster, the government may request the Bank to reallocate project funds to support response and reconstruction. This component would allow the government to request the Bank to reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available for such an emergency.

## **1.3 Background of Sub-Projects**

The Government of Sindh through the Sindh Irrigation Department intends to undertake rehabilitation and improvement of PB, MS, KUKA, BU and Kotri Guide Bunds of Indus River under the World Bank financed Sindh Resilience Project (SRP). The present Resettlement Action Plan (RAP) has been prepared to address the resettlement issues over the proposed embankment rehabilitation works in compliance with the World Bank safeguard policies.

The MS, Kuka Wari, Kuka Link and Kuka Retarded embankments (bund) are located in District Sajawal, Kotri Barrage Guide Bunds is located in Hyderabad while PB and BU bunds are located in Thatta District. The main activities involved in the rehabilitation works include obtaining soil from borrow area and transporting it to the embankments, strengthening the existing embankments with the soil, soil compaction, and stone pitching on slopes. The contractor will also need to establish some temporary facilities as well including material yard and construction camp for workforce.

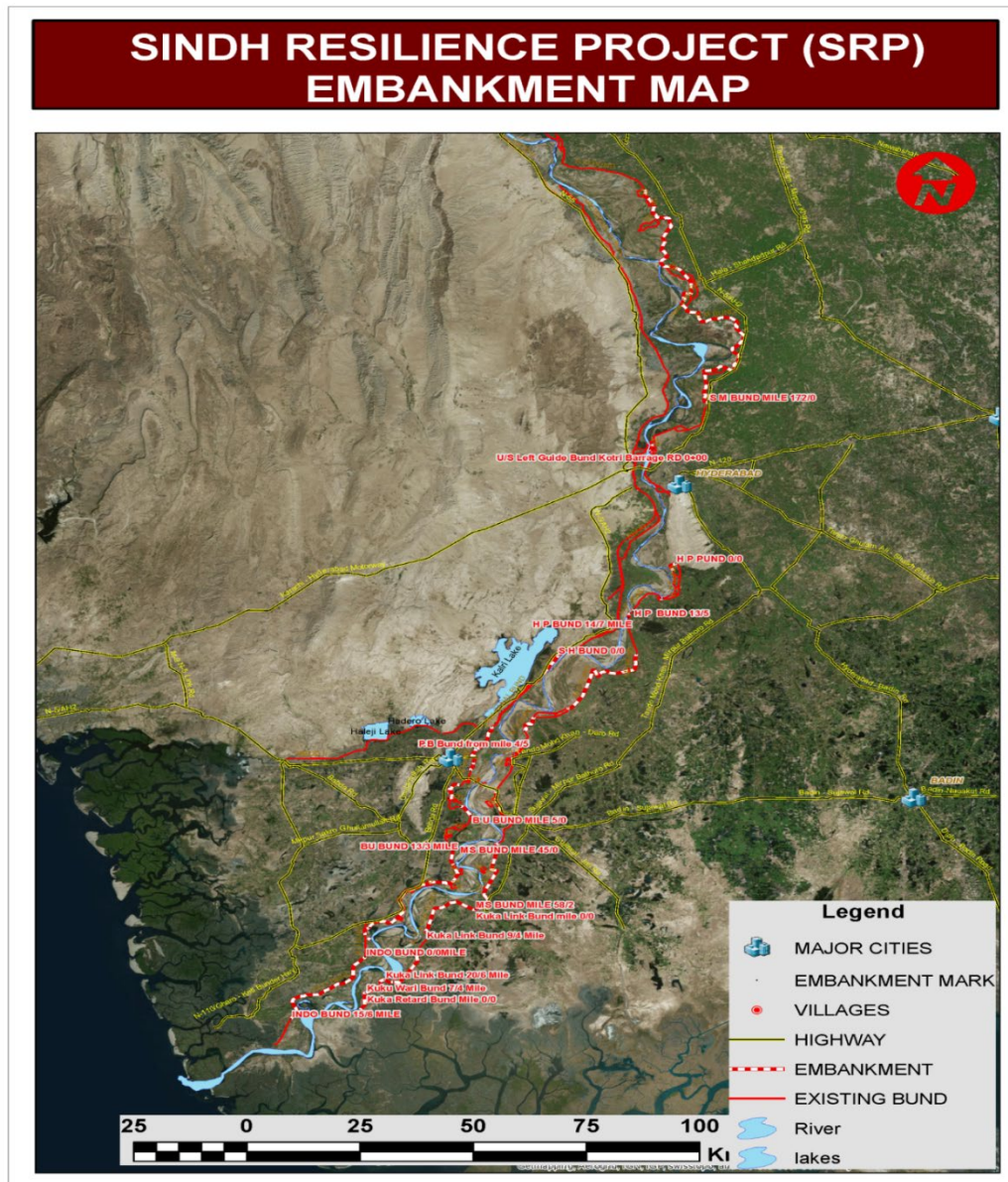
## **1.4 Subproject Categorization**

The ESMF/RPF report defines that: i) a full EIA/ESA including an ESMP and RAP will be carried out for subprojects requiring new construction or having significant irreversible and widespread impacts or involving significant degradation of forests of sensitive areas, requiring land acquisition for dam height more than 15m; ii) an ESMP (and a RAP if needed) will be prepared for medium-sized sub-projects involving rehabilitation of existing structures, potentially causing low to moderate level of negative but reversible and localized impacts; and iii) Environmental and Social Checklists will be filled for smaller subprojects resulting in low / negligible impacts.

The proposed subprojects are the rehabilitation of the existing embankments along the Indus River downstream of Kotri Barrage. Based on the Social Assessment, it is anticipated that the project may have some adverse social impacts associated with the displacement of a limited number of settlements, structures as well as the sources of income of the peoples. The present Resettlement Action Plan (RAP) has been prepared accordingly to meet the Category A subproject requirements in line with Resettlement Policy Framework (RPF) of SRP and World Bank’s Operational Policy on Involuntary Resettlement (OP-4.12).

### 1.5 Sub-Projects Location

The location of three embankments to be undertaken under the proposed sub-projects is shown in **Figure 1**. As discussed earlier, the MS and Kuka embankments (Bunds) are located in District Sajawal, Kotri Barrage Guide Bund in Hyderabad while BU and PB Bunds are located in Thatta District.



**Figure 1: Location of the Embankments Sub-projects**

## 1.6 Project Proponent

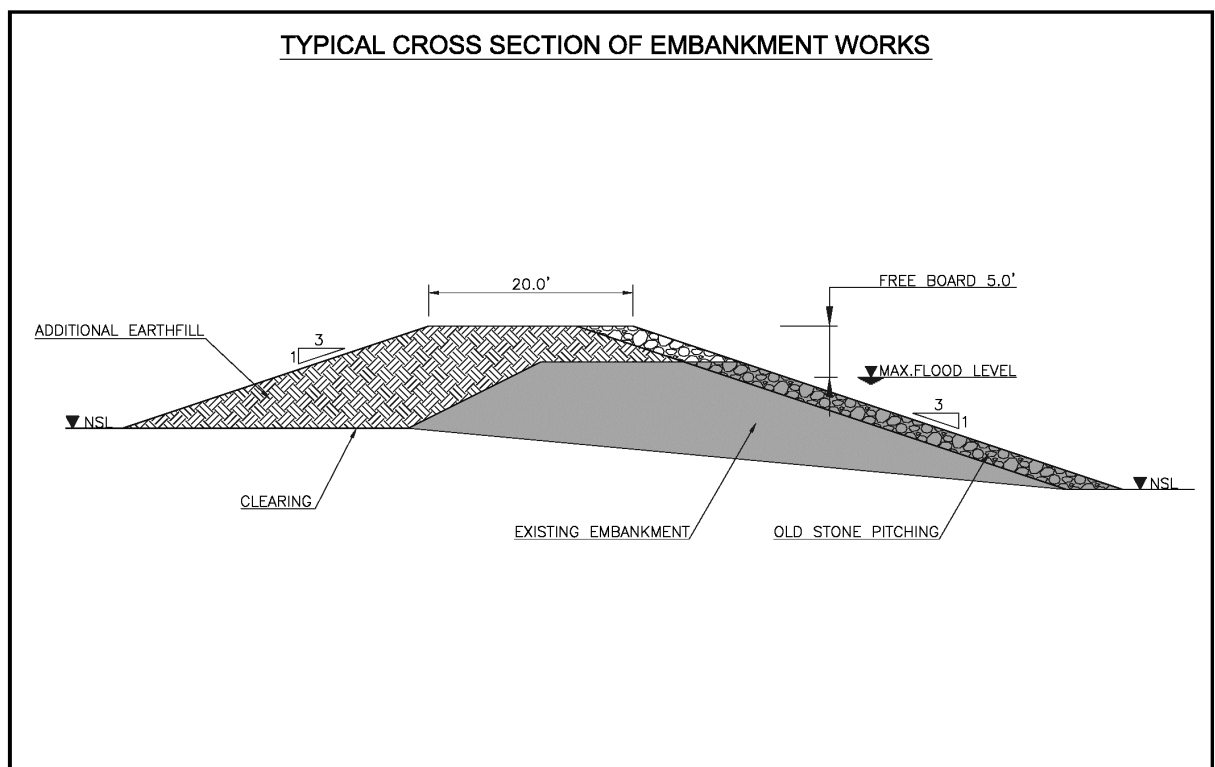
The sub-project will be implemented under a sector loan agreement between Government of Sindh (GoS) and the World Bank. The Sindh Irrigation Department (SID) will be the project proponent and will execute the project under the supervision of Project Director, SRP.

The overall responsibility for implementing the SRP as well as the present RAP rests with the Project Management Team (PMT), Irrigation Department, to be headed by the Project Director.

## 1.7 Engineering Baseline and Details

### 1.7.1 Existing Condition and Problems of the Sub-Projects

The Indus flood protection bunds / embankments are designed, constructed and maintained according to Sindh Irrigation Bund Manual. The bunds are constructed of soils from river bed which are mostly sandy silts and clays. In many reaches fill and foundation material is highly erosive. The bund crest is kept 20 feet wide with a freeboard of 4 to 5 feet above the maximum observed flood level, slopes are kept quite gentle and the upstream face is protected with stone pitching. Upstream stone aprons (launching aprons) are provided in the reaches where river bed erosion is expected. There is no slope protection on the downstream face. The embankment face damages during high floods. Animal and human activity is another source of disturbance. The typical cross-section of embankment indicating project works is shown in **Figure 2**.



**Figure 2: Typical Cross-Section**





The existing condition of embankments of sub-projects is described below. Some photographs of these embankments are given in **Annex 1**.

### **P.B Bund**

The P.B Bund is located in Thatta & Chatto Chand Town, which is an important first line of defense to protect Kalri Baghar Feeder (K.B.F) Lower canal, villages, valuable public and private properties from the river flood. Due to heavy wave wash and erosion along the subject bund, it is earnestly required to strengthen it according to Bund Manual Specifications. The work of stone pitching is essential from mile 0/0 to 8/5, and mile 11/4 to 15/0 along P.B bund.

### **M.S Bund**

MS Bund starts at the end of Hajipur bund (HP Bund) and stretches to the length of mile 58/2 near Chuhar Jamali. MS bund was renowned forest in Kacha, in which now land is heavily cultivated and forest is no more. Throughout its history it has remained under severe threat. Its various portions are totally eroded and new bunds named 1st Surjani and 2nd Surjani were constructed from mile 24/7 to 29/2 and Gungri Chord bund at mile 44/4 to 45/3.

Geographically due to hills on right side up to Thatta town, river has tendency to exert its pressure on left side. M.S bund, mile 0/0 to 24/7 is lying in the location which is called wind corridor. Wind blows from south west to east and plays great havoc with earthen bunds. When water level was maximum during 12-08-2015 to 20-08-2015 and gusty wind blew for many days, continuously, dashing waves eroded the bund severely from mile 0/0 to 14/0 and 22/0 to 24/7.

### **B.U Bund**

B.U bund is located near Thatta and Ghora Bari vicinity, which is important first line of defense to protect the Kalri Baghar Feeder (K.B.F) lower, villages, valuable Government and private properties from the river flood. The B.U bund was badly damaged due to heavy wave wash during the flood of 2015 and almost the river side slope was badly damaged. It is pertinent to provide stone pitching along this Bund from mile 3/0 to 5/0 in order to save the bund from wave wash action in future floods.

### **Guide Bund Kotri Barrage**

During super flood 2010, almost the entire length of Guide Bund was under heavy pressure and seepage and wave wash among 3 leaks were found strong erosion. Many pore holes were found of different sizes. Due to heavy seepage the entire vicinity including many Government and private residents remained under tension. Therefore, it is necessary to undertake earth work and repair damage stone pitching along Upstream Left Side Guide Bund from R.D 0+000 to R.D 5+700 in Kotri Barrage Division Jamshoro to avoid any mishap during upcoming floods.

### **Kuka Link Bund, Kuka Wari Bund and Kuka Retarded Bund**

Kuka Link, Kuka Wari and Kuka Wari Retarded bunds are left bank river bund located in the lower Pinyari division, Sujawal. These are also in worst condition and need improvement for the upcoming floods in future.

Proposed Interventions under these Subprojects are briefed below:



## 1.7.2 Proposed Rehabilitation Works

The rehabilitation and strengthening of embankments mostly include following type of works:

- Widening of bunds in reaches where embankments were eroded during past floods
- Reconstruction of stone pitching with gravel bedding
- Recouping of stone aprons
- Construction of gabion groins
- Construction of huts (landhis) for inspection and monitoring staff

### P.B Bund

The proposed works in the PC-I is stone pitching from mile 0/4 to 4/5, mile 7/4 to 15/0 along this bund.

### M.S Bund

Its various portions are totally eroded and new bunds named 1st Surjani and 2nd Surjani were constructed from mile 24/7 to 29/2 and Gungri Chord bund at mile 44/4 to 45/3. Stone Pitching along M.S Bund from mile 0/0 to 15/0 and 22/0 to 24/7 is required.

### B.U Bund

The proposed rehabilitation works in PC-I are to provide stone pitching from mile 3/0 to 5/0 along B.U Bund in order to save the bund from wave wash action in future floods.

### Guide Bund Kotri Barrage

The proposed rehabilitation works in PC-I are the earth work and repair damage stone pitching along Upstream Left Side Guide Bund from R.D 0+000 to R.D 5+700 in Kotri Barrage Division Jamshoro to avoid any mishap during upcoming floods.

### Kuka Link Bund, Kuka Wari Bund and Kuka Retarded Bund

Kuka link bund will be provided stone pitching at different reaches between miles 0/0 to 20/6. And it is proposed that raising and strengthening of Kuka Wari bund mile 3/6 to 7/4 and Kuka Wari Retarded bund mile 0/0 to 3/0 will be undertaken in order to restore stability of bund and to pass upcoming flood safely.

## 1.8 Need of the Study

World Bank funded projects require a Resettlement Action Plan for all those projects that result in either physical or the economic displacement of people. The scope and level of detail of resettlement planning will vary with the circumstances, depending on the project's complexity and the magnitude of its effects. As a minimum requirement, RAP must ensure that the livelihood of people affected by the project is restored to pre-project level. Although the proposed sub-projects have minimum social and resettlement issues, however, Resettlement Action Plan (RAP) has been prepared to address these issues.



## 1.9 Alternative Options

Efforts have been made by using all appropriate options of engineering design in finalizing the alignment to minimize the resettlement impacts. The implementation of this sub-project can cause resettlement issues like vacating RoW for execution of civil works, partial or full demolishing of permanent structures (residential), relocation of temporary small business structures and felling of trees within the RoW. To reduce the social impacts of the proposed interventions, the mitigation measures have been taken into account for minimizing adverse impacts as shown in **Table 1**.

**Table 1: Proposed Mitigation Measures**

Item	Mitigation Measures
Impact on local population / agricultural production	All the proposed works are confined to the existing available RoW and no works are proposed off-line of the RoW. Continuity of water availability for irrigation and other community uses in accordance with normal practice will be ensured.
Reduced Work Area Limits	Instead of taking into consideration the entire Corridor of Impact (Col), the proposed project works are confined to width of RoW. This approach has helped in minimizing the resettlement related impacts on the community. In case of any relocation from Col, compensation will be paid as per World Bank Policy.
Community/Religious Structures	The rehabilitation works have been designed to avoid the need to demolish community/religious structures.
Land Acquisition	Permanent / titled land acquisition is not involved in proposed rehabilitation works as the works are confined to the existing RoW.

## 1.10 Objectives of the Resettlement Action Plan

The Resettlement Action Plan for the sub-projects envisages addressing the adverse socioeconomic impacts as a result of implementation of this sub-project under SRP. Thus, the main focus of this plan is to set out strategies for mitigation of adverse effects and to maintain living standards of those persons affected by the sub-project activities. It includes the parameters for the entitlement package for affectees, the institutional framework, and the mechanisms for consultation, grievances resolution and the timeframe. The following are the specific objectives of this Resettlement Action Plan (RAP):

- To have specific recommendations for compensation and other resettlement assistance to be provided before the starting of civil works (if any).
- To consult with affected persons about acceptable alternatives including measures which will ensure the orderly and timely shifting of severely affected households (vulnerable) and small business owners;
- To define institutional arrangements for implementation and grievance redressal mechanism
- Monitoring and evaluation, and
- Time frame and financial implications.
- To obtain information about needs and priorities of the affected people.
- To obtain the cooperation and participation of the affected people in resettlement planning and implementation.



## **2 SOCIO-ECONOMIC ASSESSMENT AND CENSUS SURVEY**

### **2.1 Background**

The projects implementation will need to get vacated certain parts of land on both sides of the Indus River Embankment sub-projects defined as corridor of impact mostly falling within the Right of Way for civil works execution. In some areas of these sub-projects, the RoW is occupied by squatters who are doing their business and/or using that land for residential purposes and have constructed religious structures/community fixtures thereon.

### **2.2 Scope of Land Acquisition and Resettlement**

The proposed works under the subprojects comprise rehabilitation of the existing embankments along the Indus River. The execution of the sub-projects (as discussed in section 1.8) is to rehabilitate the existing embankments and the proposed works will be confined to the already available RoW. As discussed earlier, these embankments are to be rehabilitated through stone pitching along the river side slope and through raising and widening of the embankments susceptible to breach. Since the land for the existing embankment is already owned by the Irrigation Department, the acquisition of land is not needed for these sub-projects. No land shall be acquired beyond RoW and also entire RoW will not be vacated rather only the land directly involved in the civil works execution within the RoW is entitled for impact assessment. Hence, no physical resettlement of the affected families is involved. The project, however, has other resettlement impacts on squatters/informal settlers such as dislocation of businesses, residential, religious structure and community fixtures as well as loss of income sources. For the assessment and evaluation of these impacts, the following methodology has been adopted.

### **2.3 Approach and Methodology**

In order to have comprehensive and detailed information the following techniques and tools of data collection were used.

#### **2.3.1 Census Survey**

The census of the impacted area was conducted hundred percent

#### **2.3.2 Village Profile**

A comprehensive village profile was prepared to document the socio-economic and demographic data of each sample village in the study area.

In order to establish a social baseline of the project area, surveys and consultations were carried out in all villages lying within the primary impact zone of Col. The public consultation process was



carried out in both primary and secondary impact zones. The primary impact zone is the direct footprint of the sub-projects (permanent and temporary works) where there will be direct impacts, for example, construction/rehabilitation works will be carried out, borrow areas will be developed, contractor's site camps to be established and access/haulage routes to be developed. Moreover the secondary impacts zone in case of the embankments sub-project will be considered the areas prone to frequent flood damage or experienced damages in the past due to breach in the embankments. This area has been considered within the radius of 1km on each side of the embankments.

Those falling within primary and secondary impact zone are 6 villages on PB bund and 2 villages on BU Indo bund falls in Thatta district jurisdiction, and 5 villages on MS bund, 14 villages on Kuka Link, Kuka Wari bund falling in Sujawal district, While on Guide bund Kotri Barrage 2 villages falls in Hyderabad district within their primary impact zone based on the survey conducted during the month of November and December 2015.

According to the results of the survey, total households within the primary and secondary impact zones of sub-projects including PB-bund, Kuka Wari-bund, Kuka link, Kuka Retarded, SM bund, Kotri barrage guide bund and BU bund are 6,875 with a total population of 38,565.

Total population of the Project area is 38,565, belongs to the Khaskheli, Brohi, Mallah, Bhatti, Shoro and Jakhro on PB-bund, Magsi, Syed, Kehar, Mallah, Memon, Pashtun and Othao on Kuka Wari bund, Sehto, Khaskheli, Kehar and Solangi on Kuka link bund, Barani, Zangeja and Syed on Kuka Retarded bund, while Machhi, Kholi, Ranta, Magsi, Palejo and Khaskheli were found on MS Bund. Sindhi is the main language in the Sub-Project area whereas most of the people particularly male can also speak Urdu and Saraiki.

The project area consists of rural population living comparatively in isolation. There are very few villages of the conventional type. Majority of the population live in small settlements of five to twenty houses scattered all over the project area. Mud houses or huts are built without layout or plan and without any regard to blocks. Some of the houses usually have a boundary wall enclosing enough space for cattle and storage of goods or grains. The roof of a mud house consists of wooden beams of all shapes and sizes, cover of thick date-palm mats and a layer of mud with clay plaster at the top. It was observed that all the people were living in self-owned houses.

### 2.3.3 Pretesting of Questionnaires

In order to test the validity and reliability of the developed questionnaire, interviewing guides were pretested in the study area and questionnaire was reviewed to assess whether questions need to be clarified, changed.



### 2.3.4 Women Survey

A separate questionnaire was developed covering various aspect/ issues of women in the area. Female Sociologist of the Consultants conducted the field survey in the sub-project area and held meetings with the affected families. The key findings have been summarized below.

- The female members of the community expressed concern that their houses are inside the Bund and are facing flood problem each year. Major problem of this village relocation of the houses falling within RoW.
- Collectively, all the female villagers were happy about the proposed project. They understood that due to raising of Bund and stone pitching they will be safe from flood danger.
- During asking about project impact on women activities, mostly they were favoring it and also having expectations to get benefits.
- Some of the communities were much interested for social benefits and jobs and some of the communities were neither showing interest about the project nor opposing the project.
- They expressed happiness that their villages will be safe due to the proposed stone pitching and raising of bund.
- Some female members shared their reservation that construction activities will disturb their daily activities like movement of women family members. Women of this area were not aware about the project; though they fear that government may displace them from their homes.
- Some of the female community member requested for the construction of water collection points and washing ghats on the river side.
- The women also requested for the provision of latrine facility wherever this facility is not available in the sub-project areas and expressed concern when the project's works commenced they will face problem to go out for latrine need.
- Some of the female members of the communities expressed concern over relocation wherever, their houses were located within RoW.
- Those women who have handicraft skill and they have demanded to provide marketing support for their local products.



### 2.3.5 Collection of Secondary Data

Data/information relating to some socio-economic characteristics of the sub-project was collected from the concerned local government offices, Bureau of Statistics and agriculture departments. The findings of the data are reported in the ESIA of the sub-projects.

Official Websites of the concerned departments were also searched. The population census reports for the concerned districts were also consulted.

### 2.3.6 Collection of Primary Data

The preparation of Resettlement Action Plan required the collection of data/information from the real field settings. To achieve this end, comprehensive questionnaires for data collection were prepared. The questionnaires were filled during the consultative meetings and during field visits. Four types of questionnaires were developed for data collection, as described below:

- Village profile for the collection of macro level information relating to the existence of socioeconomic infrastructure in the villages/rural settlements falling within Col.
- Census survey to document the Project Affected Persons (PAPs), their assets, family profiles and economic status.
- Socio-economic baseline covering basic information of the household, available facilities, social issues, livelihood, housing and landholding
- Consultations were made with the stakeholders and general public. Consultative meetings and focused group discussions were held to learn about the views and concerns of the local community on the proposed rehabilitation works. The concerns raised by the stakeholders were considered in developing the environmental and social mitigation plan, in order to enhance the projects acceptability for the general public on socio-economic considerations. The main objectives of the consultation were to provide a platform to the stakeholders, to voice their concerns or suggestions to the project team and to develop a sense of collective ownership for the activities of the project.

## 2.4 Sub-Project Resettlement Impacts

Keeping in view the structural integrity of the embankments, their right of way (RoW) has been kept as 45 m (150 feet) and accordingly the structures located within RoW were recorded.

## 2.5 Methodology for Census Survey

A census of all affected households (AHs) was carried out based on the entitlement matrix given in the ESMF/RPF. The Census has determined the exact number of AHs/PAPs and how they will be affected by the specific impacts of a subproject.



The impact on community and property due to proposed project interventions were assessed through field surveys conducted during the period December, 2015 and January, 2016. The surveys included a Census where household level data of all affected households were collected.

A separate checklist was used to establish an inventory of losses of each affected household which included details of potentially affected structures and other assets belonging to each household. Similarly, a separate inventory of losses was prepared regarding the commercial property and public and community structures. The census was conducted and inventory of losses was prepared for all of the potentially affected households. Some site specific photographs of structures that are likely to be affected due to interventions are depicted in **Annex 2**, while the results of the census survey are presented in **Annex 3**.

## 2.6 Affected Persons

Any person, whose land, asset /infrastructure, source of income or access to resources is likely to be affected by the project's operations is defined as affected person. These include mainly the owners of structures and assets located on the embankments.

## 2.7 Eligibility Criteria

All affected persons will be entitled to compensation and resettlement assistance based on entitlement matrix devised in the ESMF/RPF and severity of impacts and ownership status.

**Table 2: Entitlement Matrix**

Sr. Nr.	Approximate Referenced Mile	Name of Head of household	Type and No of Impacted Assets/Structure					Total Resettlement Cost
			No and Type of Rooms Residential			Public/Community Assets	No. of Shops	
			Brick Masonary	Huts	Animal Shed			
1	PB bund 11/5	Ladho	0	2	0	0	0	239,450
2	Pb bund 10/7	M.Hassan	1	0	0	0	1	51,950
3	Kuka Link 20/6	Ghulam Qadir	0	0	0	0	1	67,695
4	Kuka Link 20/6	Noor Mohammad	0	0	0	0	1	67,695
5	Kuka Link 20/6	Mujahid	0	0	0	0	1	80,195
6	Kuka Link 20/6	M. Yaqoob	0	0	0	0	1	42,695
7	Kuka Link 9/6	Wadera Omer	0	0	0	0	1	27,695
8	Kuka Link 9/6	Abdl Wahab	0	0	0	0	1	27,695



9	Kuka Link 9/6	Ghani	0	0	0	0	1	12,195
10	Kuka Link 9/6	Suleman	0	0	0	0	1	55,195
11	Kuka Link 9/6	Qadir Bux	0	0	0	0	1	27,695
12	Kuka Link 9/6	Omer	0	0	0	0	1	27,695
13	Kuka Link 9/6	Najeeb	0	0	0	0	1	27,695
14	Kuka Link 9/6	Ghul Hassan	0	0	0	0	1	27,695
15	Kuka Link 9/6	Ali Hassan	0	0	0	0	1	27,695
16	Kuka Link 9/6	M. Haneef	0	0	0	0	1	27,695
17	Kuka Link 9/6	Fathah Khan	0	0	0	0	1	117,695
18	Kuka Link 9/6	Gul Zaman	0	0	0	0	1	57,695
19	Kuka Link 9/6	Haji Karim	0	0	0	0	1	27,695
20	Kuka Link 9/6	Fathah Khan	0	0	0	0	1	27,695
21	Kuka Link 9/6	Ahamad Shah	0	0	0	0	1	55,195
22	Kuka Link 9/6	Qasim	0	0	0	0	1	27,695
23	Kuka Link 9/6	Ahamad	0	0	0	0	1	55,195
24	Kuka Link 9/6	Ramazan	0	0	0	0	1	27,695
25	Kuka Link 9/6	Salah	0	0	0	0	1	27,695
26	Kuka Link 9/6	Gul Mohammad	0	0	0	0	1	55,195
27	Kuka Link 9/6	Ahamad Shah	0	0	0	0	1	27,695
28	Kuka Link 9/6	M. Essa	0	0	0	0	1	50,195
29	Kuka Link 9/6	Summar	0	0	0	0	1	27,695
30	Kuka Wari	Shah nawaz Zangejo	0	0	0	0	1	17,695
31	Kuka Wari	Mohammad khan zangejo	0	0	0	0	0	26,195
32	Kuka Wari	Mohammad khan zangejo	0	0	0	0	1	29,195
33	Kuka Wari	Mohammad Hussain	0	0	0	0	1	32,195
34	Kuka Wari	Ali Hassan	0	0	0	0	1	33,195
35	Kuka Wari	Gul Hassan	0	0	0	0	1	33,195
36	Kuka Wari	M. Hassan	0	0	0	0	1	36,695
37	Kuka Wari	Nazeer Ahamad	0	0	0	0	1	44,195
38	Kuka Wari	Rasool Bux	0	0	0	0	1	28,195
39	Kuka Wari	Mohammad Rafiqe	0	0	0	0	1	38,445
<b>Total</b>			<b>1</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>37</b>	<b>1,742,865</b>

Lack of legal documents for customary rights of occupancy/titles shall not affect eligibility for compensation and assistance.



Entitlements of PAPs have been considered in two broad categories: (i) entitlements for loss of physical property including houses and (ii) entitlements for loss of income. In the first case PAPs will receive the following compensation:

- i. Assistance in cash amounting to the negotiated value with the communities which is the assessed and agreed value structures at the time of payment and would include cost of titling;
- ii. Cash grants and resettlement assistance such as shifting allowance.

**Table 3: Detailed Cost Estimates for RAP Implementation**

Sr. Nr	Category / Type of Structure or Assets	Estimated Cost (in PKR)
1	Crops compensation	2,378,189
2	Residential Structures	265,645
4	Business Structures	1,477,220
	<b>Total Cost</b>	<b>4,121,054</b>
	<i>10% contingency allowance</i>	412,105
<b>Grand Total</b>		<b>4,533,159</b>

## 2.8 Valuation of Assets

A valuation survey was undertaken for estimating the unit rate for compensation of different types of losses, such as residential and commercial structures. The rates were arrived at, in consultation with the local community/ affected people. Using these data, the unit rates used for valuation of affected structures was determined. However, the following procedures/ methods were used for the proper assessment of unit compensation values of different items/ assets located within the RoW as standard for valuation of assets as follows;

- I. Houses are valued at replacement value/ cost based on cost of materials, type of construction, labour, transport and other construction costs.
- II. The relocation cost is the amount needed to displace and relocate temporary assets at prevailing market prices by adding costs for transportation. The cost includes transportation of the domestic commodity and salvageable material (e.g. bricks, roofing, doors, window frames, glass panels, metal fixtures and fittings etc.) to the relocation point. The transportation cost @ Rs.5195 is incorporated in the resettlement budget. This rate is within the district and based on information collected from the local goods companies. (Please see Annex-3)
- III. the damage sustained by the person by the loss of any standing crops or trees which may be on the land during construction period;



As discussed earlier that most of the structures are houses and wooden kiosks (cabins). Therefore, the houses and other structures were valued at replacement cost plus labor and transport cost based in the area, type and material of the affected item. No deductions will be made for depreciation, salvageable materials and taxes.

## 2.9 Cut-off Date

Eligibility to receive compensation and resettlement assistance will be limited by the “cut-off” date. The communities were informed one week before undertaking consultation to make sure their participation in the consultation process and time as well as venue for consultation was fixed with their consensus. Moreover the dates of public information and cut – off date remained the same for the Kotri barrage guide bund and BU bund, as there were no settlement/migration found away from this location and hence this was not required. The cut-off-date is the start of the census of the affected communities which was concluded as follows;

**Table 4: Cutt-off Date**

S.no	Name of Bund	Date of Public Information	Cutt-off Date
1	PB Bund	17 <sup>th</sup> December 2015	25 <sup>th</sup> December 2015
2	Guide Bund Kotri Barrage	3 <sup>rd</sup> January 2016	3 <sup>rd</sup> January 2016
3	Kuka Bund	21 <sup>st</sup> January 2016	4 <sup>th</sup> February 2016
4	MS Bund	21 <sup>st</sup> January 2016	5 <sup>th</sup> February 2016
5	BU Bund	7 <sup>th</sup> February 2016	7 <sup>th</sup> February 2016

This census survey was jointly carried with the representatives of the Sindh Irrigation Department. This cut-off date was shared with the affectees (Please see table above) and informed them that any person entering the project area after the cut-off date is not eligible to receive the agreed upon entitlements.

## 2.10 Entitlement Matrix

Public consultation was carried out with the affectees and they have provided good feedback from the project area and helped define the policy and entitlement matrix for the project. Entitlements for different categories of losses and their corresponding PAPs have been given in the entitlement matrix. Eligibility of PAPs will be governed by the entitlement matrix and cut-off dates. **Table 2** provides an entitlement matrix for different types of losses and dislocation, based on the Inventory Census.

**Table 5: Eligibility and Entitlement Matrix**

Description	Specificati on	Affected People	Compensation Entitlements	Estimated Rates
Houses (may have more than one hut) and Structure	Wooden huts	Squatters	Cash compensation against the area covered by each house structure for affected person/ household and other fixed assets free of salvageable materials, depreciation and transaction costs. In case of partial impacts full cash assistance to restore remaining	PKR: 120/square foot (Average house/hut size 250 sq feet) Subsistence Allowance per affectee house PKR: 15,585/Month and total PKR:



Description	Specificati on	Affected People	Compensation Entitlements	Estimated Rates
			structure. In addition, living/ subsistence allowance shall be paid for three months to the affectees whose houses are relocated.	46755 shall be paid to each Affectee house. Average household size is 6
Business Structures	Pucca and Kacha	Squatter	Cash compensation for the period of business interruption. The losses are both temporary and permanent.	PKR: 125/ sq ft plus 5,195 relocation cost/structure
Relocation	Transport and transitional livelihood costs	All PAPs affected by relocation	Provision of sufficient allowance to cover transport expenses.	PKR: 5,195for each affected person/household.
Loss of Standing Crops	Applicable for all crops standing on land within the RoW at the time of construction	All PAPs including squatters	Crop compensation in cash at full market rate for two harvest or project periods by default for impacts caused by the rehabilitation of the embankments.  All other crop losses will be compensated at market rate based on the actual losses.	<b>Wheat:</b> Price PKR: 1,100/40kg. Per acre yield: 1368 kg. Compensation is PKR: 37,306 per acre. <b>Sugarcane:</b> price PKR: 180/40 kg. Per acre yield: 20.95 M.Tons. per acre compensation is PKR: 93,598 per acre. <b>Banana:</b> PKR: (Per Acre Yield: 1.71 M.Tons) and per 40kg price is PKR: 1,455. Therefore; per acre compensation rate is PKR: 62,184 <b>Cotton:</b> PKR/Bale is 23,845 (Per Acre Yield: 1.98 Bales) <sup>1</sup> and per acre compensation is PKR: 47,213

1. Average per acre yield of seed cotton in Sindh is 1010 Kgs which calculate 337 Kgs or 1.98 bales of lint as one bale of lint in Pakistan is equal to 170 Kgs. (Source: Sindh Agriculture, Supply & Prices Department Government of Sindh, 2013).

## 2.11 Timeline of Relocation by Project Component

The relocation time of the affectees would be before the commencement of the physical works on the sub-projects.

## 2.12 Procedure for Payment

As discussed earlier, the Project will pay the negotiated/replacement amount to the PAPs through the Deputy Commissioner/Project Director SRP and PAPs will be allowed to take away the materials salvaged from their dismantled houses and shops at no costs, despite the compensation paid. The cash payments will be made through crossed cheques in the name of the recipient PAP.

## 2.13 Standard Rates Adopted for Assets Valuation

A valuation survey was undertaken for estimating the unit rate for compensation of different types of losses, such as residential and, commercial structures, fruit trees, community owned and religious structures and other such asset. The rates were arrived at, in consultation with the local



community/ affected people and market places as given in appendix-B. Using these data, the unit rates used for valuation of affected structures was determined. These are based on the prevailing market rates. However, the following procedures/ methods were used for the proper assessment of unit compensation values of different items/ assets located within the Col as standard for valuation of assets as given in the entitlement matrix.

- I. Houses are valued at replacement value/ cost based on cost of materials, type of construction, labour, transport and other construction costs.
- II. Hand pumps and other utilities are valued at current installation cost.  
The transportation cost is the amount needed to displace temporary assets at prevailing market prices.

## 2.14 Updating the RAP

This section of the RAP is considered as resettlement action for the sub-projects may need to be updated to take into account changes in the final designs or any unforeseen or additional impacts during the construction phase. The RAPs should be updated (i) on the completion of detailed engineering design but prior to the award of civil works contracts and (ii) during the subproject civil works where design changes during construction result in changes to the resettlement impacts. The structures reported in **Annex 3** will not be removed until all amended RAPs or addendum to a RAP get approved by the World Bank, payments made and PAPs vacate the land within the agreed notice period.



## 3 POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK

### 3.1 Legal Background

The Land Acquisition Act (LAA) of 1894 is the main law regulating land acquisition for public purpose. Each province has its own interpretation of the LAA, and some Provinces have issued provincial legislations. The LAA and its implementation Rules require that following an impact assessment and valuation effort, land and crops are compensated in cash at market rate to titled landowners and registered land tenants/users, respectively. The LAA mandates that land valuation is to be based on the latest 3-5 years average registered land sale rates though, recently, the median rate over the past 1 year, or even current rates, were applied in some cases. Due to widespread practice of land under-valuation by the Revenue Department, current market rates are now frequently applied, plus 15% Compulsory Acquisition Surcharge as envisaged by the LAA.

Based on the LAA, only legal owners and tenants registered with the Land Revenue Department or possessing formal lease agreements, are eligible to compensation. Users of Rights of Way (RoW) are not considered "affected" by project activities and thus not entitled to any mitigating measure, compensation, or livelihood support. Also, there is no legal obligation to provide title less land users and unregistered tenants, Encroacher/ Informal Settlers for rehabilitation either in form of house-for-house or land-for-land replacement, or in form of cash.

The LAA also does not automatically mandate for specific rehabilitation/assistance provisions benefiting the poor, vulnerable groups, or severely APs, nor does it automatically provide for income / livelihood losses or resettlement expenses rehabilitation. Though, often this is done; it is the responsibility of affected persons to apply for benefits, rather than the responsibility of the project proponent to automatically provide them.

As mentioned above, exception to the rules can be explained by the fact that the law is not rigid and is broadly interpreted at the provincial level depending on operational requirements, local needs, and socioeconomic circumstances. Recourse is often taken to ad-hoc arrangements, agreements and understandings for resettlement in difficult situations. The above is also influenced by the fact that an amendment of the LAA is considered by the Ministry of Environment.

### 3.2 Land Acquisition

As the project is envisaged to rehabilitate the existing embankments and therefore; at present no land will be required for the sub-projects covered under this RAP.

### 3.3 World Bank's Involuntary Resettlement Policy (OP 4.12)

The World Bank lays down policy guidance for the projects and programs that affect the human population to ensure that local residing people are benefited from development projects and adverse effects on human environment caused by the project can be avoided or mitigated. Under



the above policy displaced persons of development project are entitled for compensation regarding loss of land, structure assets, crops, livelihood activities etc. Social Assessment (SA) has been carried out to evaluate the project's potential positive and negative /adverse effects on the people and to examine project alternatives where adverse effects can be minimized.

The World Bank's experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.

The overall objectives of the Policy are given below:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.
- The Policy defines the requirement of preparing a resettlement plan or a resettlement policy framework, in order to address the involuntary resettlement.

For the proposed project, land will not need to be acquired only structures located on the embankments (within RoW) will be dislocated. Livelihood of some affected persons may be affected due to their dislocation from existing place.

In view of the above, the OP 4.12 will be triggered; the present Resettlement Action Plan has thus been developed in accordance with this OP. This policy covers direct economic and social impacts from Bank-assisted investment projects, and is caused by:

Involuntary acquisition of land resulting in relocation or loss of shelter;

- Loss of assets or access to assets; or
- Loss of income sources or means of livelihood, whether or not the project affected persons must move to another location; or
- The involuntary restrictions of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.



According to the World Bank policy following measures would be adopted regarding project affectees;

- Inform about options and rights pertaining to resettlement matters.
- Consulted on offered choices among, and provided with technically and economically feasible resettlement alternatives.
- Provide prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project
- Provide assistance like moving allowances during relocation; and offer support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living.
- Provide with development assistance.
- Counseling in respect of credit facilities, trainings, or job opportunities; and
- Measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore, in real terms.

### **3.4 Environmental and Social Management Framework and Resettlement Policy Framework (ESMF/RPF)**

The SRP project envisages a number of interventions under its Component 2 including improving / rehabilitating the degraded reaches of embankments of Indus River, construction of small detention dams in water scarce districts of the province, and construction of office buildings. As the list of sub-projects and locations was not finalized at the time of the overall project design, therefore a framework approach has been adopted. Under this approach, an Environmental and Social Management Framework and Resettlement Policy Framework (ESMF/RPF) has been prepared to identify the potential but generic adverse environmental and social impacts of the project, propose mitigation measures to address these potential impacts, and finally, to provide basic screening criteria for selecting the subprojects to be undertaken under SRP.



## 4 IMPACT ASSESSMENT

The sub-projects will need to vacate certain tracts of land on both sides of the embankments defined as corridor of impact mostly falling within the Right of Way for civil works execution. In some areas of these sub-projects, the RoW is occupied by squatters who are doing their business and/ or using that land for residential purpose and have constructed religious structures/ community fixtures.

### 4.1 Identification of Affected Persons

Any person, whose land, asset /infrastructure, source of income or access to resources is likely to be affected by the project's operations is defined as affected person. These include mainly the owners of structures and assets located within RoW of embankments. The data has indicated that total 39 structures including 2 residential structure (One household and one Otaque/local guest rooms), and 37 commercial structures lying within RoW will be affected by project activities. All these structures are owned by 38 people. The information relating to the categories of affected structure is provided in **Table 6** for detail see **Annex 3**.

**Table 6: Categories of Affected Structures**

S#	Category of APs Structures	No
1	Residential Structures	2
2	Individual Hand Pumps	0
3	Animal Sheds	0
4	Commercial Structures (Shops)	37
5	Communal Hand Pumps	0
6	Graveyards	0
7	Otaq (Guest Rooms)	0
8	Mosques (Pucca)	0
9	Mosque (Kacha)	0
<b>Total</b>		<b>39</b>

A field visit was undertaken on 27 March 2018 in response to the comments received from the World Bank on Abbreviated Resettlement Action Plan (5 Embankments). The purpose of visit was to determine/confirm the eligible persons for compensation as per ESMF/RPF for the community structures i.e. Mosque/Imambargah and School located at RD 0/4 of MS Bund.

In this regard, the Project Management Team (PMT) and Project Implementation Support & Supervision Consultant (PISCC) management constituted following team to conduct the field visit on immediate basis:

#### **PISCC was represented by**

Naimatullah Kakar, Social Safeguard & Resettlement Specialist

Saeed Akhund, Resident Engineer



### **SRP was represented by**

Nasir Ali Panhwar, Social Safeguard Consultant-PMT

### **Community Representatives**

Yar Mohammad Shah

Sardar Mohammad Shah

Summar Malah

Ramazan

Sikander Ali Shah

Abdul Jabbar Malah

Muzafar Shah

Suleman Shah

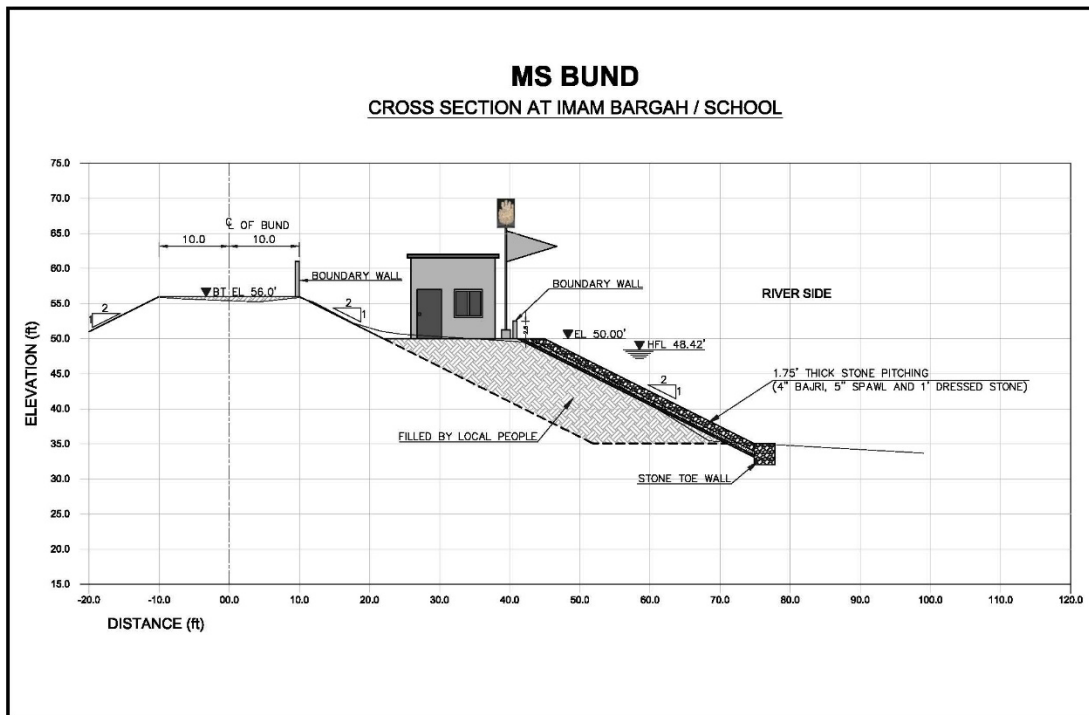
During consultation meeting with the community, the community expressed that Imambargahs (Mosque) are more than 50 years old and even during 2010 flood, the structure was safe. They declined to move the Imambargah and school even if they get relocation compensation. Imambargahs (Mosque) are part of Muslim Shia school of thought where they hold regular religious gatherings.

The community representatives were informed that during formulation process of ARAP in 2015, they agreed with the project team for the relocation of the structures and compensation by the project. In response; the communities reported that after the end of last meeting held with the project team, another meeting was arranged by the community elders and they have agreed to one point agenda i.e. to request the project team for the protection of the community structures including Imambargahs and school and not to relocate. They assured that they will extend full cooperation during the construction work.

They further added that this is a sensitive religious site and would approach their main organization, in case of forced relocation.

On the basis of the community consultation, the matter was discussed with design section of the PISCC and they proposed following engineering solution to protect the community structures:

A detailed topographic survey of the area was carried out, which shows that Imambargah buildings and school which are adjacent to each other are constructed over an earthen platform prepared in the riverside of the protection embankment (bund) as shown in photograph and sketch below.



Imambargah buildings and school are surrounded by a brick masonry boundary wall, which is about 5 feet tall. The platform is at RL 50, which is about 1.6 feet above maximum recorded flood water level.

Since the relocation of the Imambargah buildings and school is not possible, then within premises portion of the embankment, the slope protection works shall be carried out below platform. There is no need to protect the slope above platform level as the boundary wall provides ample freeboard. However, outside the boundary wall the protection of entire slope shall be required. During project works, some disturbance may occur to building users, but they have consented to



allow that construction. However, during religious ceremonies in month of Muharam construction activity shall not be carried out.

#### 4.2 Impacts on Privately Owned Structures

During the field survey, different structures were noted such as residential structures (Kacha houses, Semi Pacca houses, and Pacca houses), Otaqs, Shops and Hand pumps in the subproject Corridors of Impact (CoI). The whole house considered as single unit. The required demolishing and relocation of these structures (moveable or immovable) will have direct impact on their income. The detail of different types of affected structures is given in **Table 7**. The site specific photographs of these structures are given in **Annex 2**.

**Table 7: Number of people, household associated with different categories of affected structures**

Sr. Nr.	Location	Name of Head of household	No of Household Associated	No of People Associated	Residential Structures	Public and Community Assets	No of Shops
1	PB bund 11/5	Ladho	1	5	1	0	0
2	Pb bund 10/7	M.Hassan	1	6	0	0	1
3	Kuka Link 20/6	Ghulam Qadir	1	6	0	0	1
4	Kuka Link 20/6	Noor Mohammad	1	6	0	0	1
5	Kuka Link 20/6	Mujahid	1	6	0	0	1
6	Kuka Link 20/6	M. Yaqoob	1	6	0	0	1
7	Kuka Link 9/6	Wadera Omer	1	7	0	0	1
8	Kuka Link 9/6	Abdl Wahab	1	8	0	0	1
9	Kuka Link 9/6	Ghani	1	6	0	0	1
10	Kuka Link 9/6	Suleman	1	8	0	0	1
11	Kuka Link 9/6	Qadir Bux	1	6	0	0	1
12	Kuka Link 9/6	Omer	1	11	0	0	1
13	Kuka Link 9/6	Najeeb	1	3	0	0	1
14	Kuka Link 9/6	Ghul Hassan	1	5	0	0	1
15	Kuka Link 9/6	Ali Hassan	1	10	0	0	1
16	Kuka Link 9/6	M. Haneef	1	7	0	0	1
17	Kuka Link 9/6	Fathah Khan	1	9	0	0	1
18	Kuka Link 9/6	Gul Zaman	1	3	0	0	1
19	Kuka Link 9/6	Haji Karim	1	8	0	0	1
20	Kuka Link 9/6	Fathah Khan	1	9	0	0	1
21	Kuka Link 9/6	Ahamad Shah	1	5	0	0	1
22	Kuka Link 9/6	Qasim	1	2	0	0	1



23	Kuka Link 9/6	Ahamad	1	7	0	0	1
24	Kuka Link 9/6	Ramazan	1	9	0	0	1
25	Kuka Link 9/6	Salah	1	12	0	0	1
26	Kuka Link 9/6	Gul Mohammad	1	5	0	0	1
27	Kuka Link 9/6	Ahamad Shah	1	11	0	0	1
28	Kuka Link 9/6	M. Essa	1	5	0	0	1
29	Kuka Link 9/6	Summar	1	6	0	0	1
30	Kuka Wari	Shah Nawaz Zangejo	1	10	0	0	1
31	Kuka Wari	Mohammad Khan	1	0	0	0	0
32	Kuka Wari	Mohammad Khan	1	8	1	0	1
33	Kuka Wari	Mohammad Hussain	1	6	0	0	1
34	Kuka Wari	Ali Hassan	1	3	0	0	1
35	Kuka Wari	Gul Hassan	1	6	0	0	1
36	Kuka Wari	M. Hassan	1	7	0	0	1
37	Kuka Wari	Nazeer Ahamad	1	7	0	0	1
38	Kuka Wari	Rasool Bux	1	3	0	0	1
39	Kuka Wari	Mohammad Rafiqe	1	7	0	0	1
<b>Total</b>			<b>39</b>	<b>254</b>	<b>2</b>	<b>0</b>	<b>37</b>

#### 4.3 Impacts on Community Structures

The impact on community structures during project implementation is a crucial issue because people consider the demolishing of such structures/fixtures (in particular the graveyards) as a sin. Therefore, care should be taken regarding impact on community structures during project works.

#### 4.4 Impacts on Commercial Structures

The survey has revealed that, two residential structure, 37 commercial structures are falling within RoW of the sub-project areas.

The affected people and families would have direct impact on their income due to loss of business activities and dislocation of their residential structures. However, they will be provided income disturbance allowance.

#### 4.5 Construction Type of Affected structures

The residential structure are comprised of kacha house, while all the commercial structures are both Kacha and Pucca.

#### 4.6 Impacts on Vulnerable Groups

Vulnerable Persons are defined as Distinct persons, who might suffer disproportionately from resettlement effects, such as the very old, the physically or mentally handicapped, the poor below

the poverty line, widows, women-headed and socially isolated households. Though, previously, some Vulnerable Persons were found in selected sub-projects areas, however, during the update process of ARAP new situation has emerged and no such vulnerable groups have been found in the project area. This was mainly due to the fact that the area where these vulnerable groups were located earlier, do not fall in the scope of work now. However, vulnerable group if found any among the affected households shall be provided additional support as per ESMF/RPF.

#### 4.7 Affected Trees

An estimated 443 trees out of total 1,050 trees will have to be cut down due to the proposed rehabilitation works. These assessments were based on walk through surveys along the embankments. These trees are in the ownership of the Sindh Irrigation Department, Government of Sindh and compensatory tree plantation is proposed in the ESIA of the sub-projects.

#### 4.8 Anticipated Crop Losses

During construction period, it is anticipated that standing crops within RoW may be damaged, if an alternate accessing route or option to avoid the anticipated impacts is not adopted. For the sake of crop compensation cost estimation, the team held initial discussions with local communities over the rates to get their feedback and obtained the prices as well yield per acre from Sindh Agriculture Department, Supply and Prices Department as well as from other concerned agencies.

However, these rates are not final and they will be updated and presented for consultation and agreement with local communities during implementation of the project. Only the final agreed rates with local communities will be used to finalize and payment of the final compensation. The cost (as contingency cost) estimated for compensation of crops based on the entitlement matrix is given in the following **Table 8**.

**Table 8: Approximate Cost (Contingency Cost) for Crops Compensation**

S#	Name of Crop	Area likely to be impacted (in acres)	Compensation Rate PKR / acre <sup>1</sup>	Total Crop Compensation Cost (PKR)
1	Sugarcane	16.5	93,598	1,544,367
2	Banana	5.49	62,184	341,390
3	Cotton	10.43	47,213	492,432
<b>Total</b>		<b>32.42</b>		<b>2,378,189</b>
<sup>1</sup> Source: Table 2.				

#### 4.9 Socio-Economic Profile of Project Corridor

The socio-economic profile of the Project Corridor includes the description of the area/villages for the entire length of the selected sub-projects. The socio-economic characteristics of the project corridor are based on the village profile, focus group meetings and information collected from the





secondary sources. According to the results of the survey furnished in the ESIA report of the sub-projects, Thatta and Sujawal districts have been consecutively hit by floods 2010 and 2011. The floods of 2010 had a devastating effect on both districts as all the union councils were affected. Most of the sources of livelihood were destroyed for the population, particularly for those whose livelihood was dependent on agriculture and related sectors. Moreover, 68,200 hectares of rice crop was damaged which caused yield loss of 2,788 kg/ha. Sugarcane crop was also severely damaged as 29,400 hectares of crop was lost, which caused a yield loss 51.3 tons/ha. Besides, cotton crop and fodder were also adversely affected.

Similarly, sources of livelihood were severely affected due to floods in 2011 as the damages to households and livelihoods were enormous. The damage of crop due to floods 2011 was quite significant as 84% of the cotton crop was damaged along with 65% of the rice crop, 26 % sugarcane and 78% of other crops. 65 livestock heads died due to floods.

In order to establish a social baseline of the project area, surveys and consultations were carried out in all villages lying within the primary impact zone of Col, while public consultation process was not carried out in secondary impacts zone, which is considered within the radius of 1km on each side of the embankments. The majority of those in the study area live together with their extended families (parents living with married children and their families). Families believe this is a more economical way of living as they often work together on the same land and are able to share their joint incomes to support the entire family, including elderly relatives who are unable to work. It is also thought to be more efficient to share basic amenities such as water, electricity, housing and food rather than for their own individual families.

#### **4.10 Cropping Pattern**

The project area being the fertile land and irrigated by canals, is very rich in growing of cotton, wheat, sugarcane. Major cropping pattern are given below. The main agricultural crops are banana, betel leaf, wheat, cotton, rice, sunflower and sugar cane together with vegetables grown for local consumption. There are two main cropping seasons; "Kharif" and "Rabi". The Kharif season starts from April-May and ends in October-November while the Rabi starts from November-December and ends in April-May.

#### **4.11 Mechanism of Conflict Resolution**

During the field survey of villages, it was observed that most activities are carried out under the instruction of the head of the tribe or clan (brotheri). Caste system in the rural area of the Sindh is abundant, and decision about conflict, right of vote, marriage settlements and other matters usually resolved by the head of brotheri. Most of the conflicts in the sub-project area mutually resolved within the brotheri. Sometimes the conflict between brotheries, if not resolved by the parties the matter may go to the police/court. The nature of conflicts is thefts of water, theft of cattle and murder.





## 5 INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

### 5.1 Introduction

To comply with World Bank requirements and policies on environmental and social assessment of projects and, all the sponsors of the projects resulting in involuntary resettlement required to prepare and publicly disclose a resettlement action plan. The ARAP/RAP must be prepared through a process of public consultation with all interested and affected parties. Proper consultation with affected parties can increase the effectiveness and reduce the cost of ARAP/RAP implementation for the sponsor or other responsible parties. As discussed earlier, the proposed sub-projects will impact the local environment of the area as well as communities living in and around project area to some extent. This chapter provides details of consultations carried out with stakeholders during the preparation of this Resettlement Action Plan (RAP).

### 5.2 Objectives of Consultation

Public consultation plays a vital role in studying the effects of the Project on the stakeholders and in the successful implementation and execution of the proposed projects. Public involvement is a compulsory feature of resettlement plan, which leads to better and more acceptable decision-making. The important general objectives of the Consultation process are:

- Provide key project information to the stakeholders, and to solicit their views on the project and its potential or perceived impacts,
- Information dissemination, education, and liaison,
- Identification of problems and needs,
- Collaborative problem solving,
- Develop and maintain communication links between the project proponents and stakeholders,
- Reaction, comment and feedback on proposed Project; and
- Ensure that views and concerns of the stakeholders are incorporated into the project design and implementation with the objectives of reducing or offsetting negative impacts and enhancing benefits of the proposed project.

### 5.3 Consultation with Project Affected Person

The first round of consultation was carried out, while the detail engineering and ESIA baseline data collection was commenced. The first round of consultation was then followed by second round of consultation when the draft ESIA was prepared. During the second round of consultation, the draft ESIA was disclosed to the community and community members and their representatives were consulted to introduce the proposed project's interventions formally to obtain their views and integrate in the design. Group discussions were also carried out in consultation process. Various focus group meetings /discussions /scoping sessions were carried

out with all expected project affected persons during months from December, 2015 to January, 2016. The meetings were held at various locations. In the meetings affected persons were informed about the plans for rehabilitation of the selected embankment sub-projects. A question answer session was initiated such as:

- Demographic characteristics of the village, as population, number of households, housing characteristics, availability of social amenities, ethnic groupings etc.
- Livelihood activities of the project affected persons.
- Women’s role in socio- economic life.
- Existing health and education facilities in the village.
- Feeling about the project.
  
- Project introduction and suggestions
- Structures losses
- Compensation for lost structures
- Mutually consensus on acceptable compensation
- Where to be shifted from existing location.
- Consultation with host community.
- Dislocation of religious structures.

#### 5.4 Consultation with Affectees

The public consultation process in the project area was commenced during the scoping sessions of the ESIA and RAP study completed in January 2016. Several meetings were held in the project area to consult the potential affected communities. The project-affected persons were consulted in conducting the census surveys for preparing the resettlement aspects of the ESIA and RAP. The consultation process was further intensified through formal and informal meetings, including one workshop in Thatta for disclosure of project impacts – social and environmental – to stakeholders for their inputs and feedback. Furthermore, consultation was also undertaken with the secondary stakeholders such as government departments. (Please see Annex-4) The key issues discussed during the consultation process are given in the in the following table along with Project response

**Table 9: Issues along with Project Response**

Issue	Project Response
<ul style="list-style-type: none"> <li>• In case of compensation, the affectees agreed to shift their huts and shops to some other areas rather than on the embankments.</li> </ul>	<p>The project would provide compensation to only those PAPs, who fall within RoW.</p>
<ul style="list-style-type: none"> <li>• They expressed their concern for not relocating them far away from the Indus River, as there are their</li> </ul>	<p>As per their desire, the relocation would not be undertaken far from RoW.</p>



livelihoods like fishing and working as tenant or wage labor.	
<ul style="list-style-type: none"> <li>The affectees expressed concern that they have no land in other areas for settlement.</li> </ul>	There is not physical displacement except economic displacement and accordingly, as per the provisions of this ESIA, those affectees will be compensated.
<ul style="list-style-type: none"> <li>In case of relocation, they requested to settle them in the same area.</li> <li></li> </ul>	The relocation could only be undertaken outside of RoW. (150 ft away from top of embankment)

## 5.5 Community Consultations

The conduct of the community consultations involved a program of structured discussion in communities in the vicinity of primary impact as well as secondary impact zone of the embankment sub-projects. **Table 10** shows the schedule of public consultations carried out on the embankment sub-projects.

**Table 10: Summary and Schedule of Stakeholder Consultations with Male Community Members**

S#	Name of village	Date	No: of Participants
<b>P.B Bund</b>			
1	Goth Basho Khaskheli	22/12/2015	10
2	Goth Mohd Raheem Agheem	23/12/2015	09
3	Goth Aboro Jakhro	23-12-2015	15
4	Nooh Bhatti/Shidi Stop/Mohd Khan Soomro	22/12/2015	49
5	Mohammad Khan Soomro	25/12/2015	27
<b>B.U Bund</b>			
1	Goth Haji Natho Memon	23/12/2015	11
2	Goth Haji Lala	23/12/2015	24
<b>Kuka Bund</b>			
1	Ghulam Mohammad Kehar	27/12/2015	10
2	Qadir Dino Shah/Ali Mohammad Memon	27/12/2015	06
3	Ahemd Magsi	27/12/2015	14
4	Ashraf Otho	27/12/2015	08
<b>Kuka Link Bund</b>			
1	Ali Baran	26/12/2015	06
2	Ali Murad Solangi	27/12/2015	14
3	Haji Allah Dino Solangi	27/12/2015	16
4	Bachal Khaskheli	27/12/2015	08
5	Mohammad Urs Kehar	27/12/2015	09
6	Wali Mohammad Sehto	27/12/2015	07
<b>Kuka Retarted</b>			
1	Sohban Shah	27/12/2015	06
2	Jiand Zangejo	27/12/2015	11
<b>M.S Bund</b>			
1	Ranta	31/12/2015	06
2	Akbar Shah	01/01/2016	06
3	Umar Malah	01/01/2016	12
4	Qasim Palijo/ Laiq Dino Palijo	01/01/2016	06
5	Umar Kandra	01/01/2016	10
6	Allah Dino Patel Mirbahar	01/01/2016	13
7	Goth Haji Umar Magsi	01/01/2016	14



8	Ali Bahar	01/01/2016	07
9	Allah Bux Kandra	01/01/2016	06
10	Bano Town	02/01/2016	11
<b>Kotri Barrage Guide Bund</b>			
1	Goth Achar Malah	03/01/2016	13
2	Goth Mohammad Ali Samoon	03/01/2016	05

### 5.5.1 Findings of Public Consultation with Male Community Members

Key findings of consultation with male community members on sub-projects are summarized below;

#### A. CONSULTATIONS WITH PB BUND MALE COMMUNITY MEMBERS

##### Goth Basho Khaskheli

- Villagers told that this project will leave positive impacts on the communities. Project will provide safety to their villages.
- Villagers also expect some development and social work for their villages under the project funds.

##### Goth Mohd Raheem Agheem

- The villagers were happy about the project and they expect that the project will protect their village roads, schools and other assets from flood in future.
- They also expect that project will create many employment opportunities for unskilled villagers.

##### Aboro Jakhro

- During consultative meeting, project activities were discussed with the villagers on which villagers shared their views that they are very happy about the project and these types of projects should start before the flood season.
- They were also looking forward for the social works in their village under this project.

##### Nooh Bhatti/Shidi Stop/Mohd Khan Soomro

- People of the Goth Nooh Bhatti shared their concerns that in each flood season they feel themselves unsafe. They have requested for urgent repair works or stone pitching works along the bund so that they can live with peace during flood time in their village.

##### Mohammad Khan Soomro

- During consultative meeting, the SRP team shared the purpose of the project in the reply villagers shown their willingness about the project.
- They demanded for employment during construction period.



## **B. CONSULTATIONS WITH BU BUND MALE COMMUNITY MEMBERS**

### **Goth Haji Natho Memon**

- Villagers of the Goth Haji Natho Memon were happy to know about the SRP project, and the villagers expect positive impacts of the project if completed successfully.

### **Goth Haji Lala**

- In consultative meeting, the villagers expressed pleasure that rehabilitation work of bund is most important for their protection and due to poor condition of the existing Bunds, in every flood season, they are disturbed mentally.

## **C. CONSULTATIONS WITH KUKA WARI BUND MALE COMMUNITY MEMBERS**

### **Ghulam Mohammad Kehar**

- The villagers expect safeguard due to the proposed rehabilitation works of the bund in flood season.

### **Kuka Wari Bund- Qadir Dino Shah/Ali Mohammad Memon**

- People of the Village Qadir Dino Shah were happy about the project and requested for government support to relocate their houses and other structures on some feasible locations to protect from floods.

### **Kuka Wari Bund- Goth Ahmad Magsi**

- The villagers expressed pleasure that the rehabilitation works of bund is most important for their protection and requested for commencement of the works on urgent basis before the flood season.

### **Kuka Wari Bund- Goth Ashraf Otho**

- During discussion, villagers told that in flood season most of the villagers migrate to temporary safe places but if government rehabilitates this bund they will not migrate in future.
- They expected that project will create many employment opportunities for unskilled villagers.

## **D. CONSULTATIONS WITH KUKA LINK BUND MALE COMMUNITY MEMBERS**

### **Ali Baran Goth**

- The villagers were happy about the proposed scope of work and they reported that each year the flood submerge their houses and create shortage of animal fodder problem.

### **Goth Ali Murad Solangi**

- The villagers expressed willingness and pleasure about the project, that the project is not only beneficial for their village but for the entire area.

### **Goth Haji Allah Dino Solangi**

- Villagers of the Goth Haji Allah Dino Solangi were happy to know about the SRP project. In response, the villagers expect that if the project is completed successfully, it will bring happiness to villagers.





- Villagers requested for employment as labors during construction period.

#### **Goth Bachal Khaskheli**

- The villagers were happy and willing for the project and requested for employment opportunities during the project works.

#### **Goth Muhammad Urs Kehar**

- People of the Goth Mohammad Urs Kehar expressed pleasure and willingness about the project and requested for immediate commencement of the proposed works before flood season that they could live in peace this year and in future.

#### **Goth Wali Muhammad Sehto**

- The villagers reported that protection bund near to their village is in poor condition and in flood season they work voluntarily with irrigation officers. After successful completion of the proposed rehabilitation works, they will feel themselves secure.

### **E. CONSULTATIONS WITH KUKA RETARDED BUND MALE COMMUNITY MEMBERS**

#### **Goth Subhan Shah**

- The villagers were happy and willing about the proposed rehabilitation works.

#### **Jian Zangejo**

- People of the Village Jiyand Zangejo were happy to know about the project. In response of the project briefing by the SRP Team, the villagers requested for completion of the proposed rehabilitation works before flood season.
- Furthermore; they requested for preference to be given to the villagers in hiring unskilled labours.

### **F. CONSULTATIONS WITH MS BUND MALE COMMUNITY MEMBERS**

#### **Ranta Village**

- People of the Ranta village were happy about the proposed rehabilitation works and requested for good quality works as well as completion of works before flood season.
- They also offered possible coordination in the project.

#### **Akbar Shah Goth**

- During consultation, the villagers expressed concern that each year they have to face the devastated flood. After completion of the proposed works, their concerns will be decreased.
- Villagers also requested for some development and social work for their village under the SRP project.

#### **Umar Malah Goth**

- People of the village Umar Malah shown their willingness and hope that some unemployed youths of their village may be given employment during construction period of the project.



### **Laiq Din Palejo Goth**

- The villagers reported that protection bund near to their village is in poor condition. In flood season, they work voluntarily with irrigation officers. They expect that after completion of the proposed rehabilitation works, they would feel relax during flood season.
- The villagers expressed their willingness to work as labor during the project works.

### **Umar Kandra Goth**

- During consultation the villagers reported that in flood season, most of the villagers migrate temporarily to safe places. If the Bund is rehabilitated, they will not migrate in future.

### **Allah Din Patel Mir Bahar Goth**

- The villagers were happy to hear about the project and offer every possible cooperation.

### **Goth Haji Umar Magsi**

- During consultative meeting, the villagers express willingness and pleasure about the projects.
- They have requested for employment opportunities during construction period.

### **Ali Bahar Goth**

- In consultative meeting villagers of Ali Bahar village said that in flood season seepage water ruin their agriculture land and their houses. If under this project, the embankments were strengthened, it will be beneficial for their lands and houses.
- It was also discussed that local unemployed youths may be given opportunity as a labor.

### **Allah Bux Kandra Goth**

- During consultative meeting in village Allah Bux Kandra appreciated the project and offered cooperation during project implementation works.

### **Bano Village**

- In consultative meeting, the villagers reported that the rehabilitation work of bund is most important for their protection. In each flood season, they could not live in peace.

## **G. CONSULTATIONS WITH KOTRI BARRAGE GUIDE BUND MALE COMMUNITY MEMBERS**

### **Goth Achar Malah**

- During consultative meeting, the villagers expressed willingness and pleasure about the projects. They have requested for employment opportunities during construction period.

### **Goth Mohammad Ali Samoon**

- The villagers were happy to hear about the project and offer every possible cooperation



## 5.5.2 Findings of Public Consultation with Female Community Members

Key findings of consultation with female community members on sub-projects are summarized below;

- The female members of the community expressed concern that their houses are inside the Bund and facing flood problem each year. Major problem of this village is the relocation of the houses falling within RoW.
- Collectively, all the villagers were happy about the proposed project. They understood that due to raising of bund and stone pitching they will be safe from flood danger.
- During asking about project impact on women activities, mostly they were favoring it and also having expectations to get benefits.
- Some of the communities were much interested for social benefits and jobs and some of the communities were neither showing interest about the project nor opposing the project.
- They expressed happiness that their villages will be safe due to proposed stone pitching and raising of bund.
- Some male members shared their reservation that construction activities will disturb their daily activities like movement of women family members. Some women were not aware about the project; though they feared that government might displace them from their homes.
- Some of the female community member requested for the construction of water collection points and washing ghats on the river side.
- The women also requested for the provision of latrine facility wherever this facility is not available in the sub-project areas and expressed concern when the project's works commenced they will face problem to go out for latrine need.
- Some of the female members of the communities expressed concern over relocation wherever, their houses were located within RoW.
- Women who have handicraft skill, demanded to provide marketing support for their local products.

## 6 COMPENSATION, RELOCATION AND INCOME RESTORATION

**Table 11: Number of affected structures, people and compensation**

Sr. Nr	Type of Structures	Numbers of Structures	People Affected	Compensation
1	Residential Structures	2	11	265,645
2	Business Structures	37	243	1,477,220
	<b>Total</b>	<b>42</b>		<b>1,742,865</b>

### 6.1 General

On the basis of the findings of the Census Survey; and adopting the legal and policy framework of Government of Pakistan & World Bank Guidelines, Resettlement Action Plan for the sub-projects has been prepared. The Resettlement Action Plan focuses on providing assistance/compensation for the lost assets due to dislocation and suggests measures to restore their livelihoods to former living standards of the PAPs.

### 6.2 Relocation Options

Entitlement provisions for affected persons for losing their houses, structures and sources of income will include under the entitlement matrix according to the SRP ESMF/RPF. The project team has reviewed explored various potential resettlement options for the project affectees. The team also looked at possible settlements out of the embankments and inners side of the Indus River, as some local residents have suggested to relocate them in Kacha (riverine area) but this option is not feasible as the risk of flood cannot be ignored in future. Therefore; this option was ignored and some other options were discussed with the communities as given in the following **Table 12**.

The Project will adopt a combination of resettlement approaches. But all resettlement options, requests and agreement will be subject to careful technical assessment, review, consultation and agreement with the concerned communities.



**Table 12: Key Resettlement Options**

OPTION	STRATEGIES
Community-based Relocation to Sites in Upper Elevation or on suitable location	Relocation to Sites in Upper Elevation or the areas where settlement exist (if the already settled communities have no objection) within close vicinity of the sub-project area;  Relocation to sites of their own choices in higher elevations within close vicinity of the sub-project area.
Self-managed Relocation to “other parts of the Thatta and Sujawal District”	Self-managed individual and/or families to identify destination and or site in the close vicinity;  Project will pay all eligible compensation (determined in the eligibility and entitlement matrix) and benefits prior to relocation;

### 6.3 Compensation for Affected Assets

As all the structures are built at government land and almost owners of the houses, shops/cabins and other structures are squatters/Informal Settlers. Data regarding structures/houses has been collected through physical inspection and measurement of the structures along with its category. A single unit house may consist of more than one room, veranda and shed/kitchen etc. All the 39 structures are scattered and located along the embankments. Details of structures are given in **Annex 3**. In this regard compensation as admissible to squatters/Informal settlers in line with World Bank Policy will be provided to affected persons for shifting to any suitable place.



## 7 INSTITUTIONAL ARRANGEMENTS

Organizational structure required for implementation of Resettlement Action Plan of the proposed project is given below. The roles and responsibilities of the various role players during the project defined in this section.

### 7.1 Project Management Responsibilities

Implementation of the RAP will be responsibility of the ESMU of PMT SRP. The PMT shall engage full time technical staff capable of carrying out the monitoring activities as proposed in the ESMF/RPF SRP.

PISSC in coordination with ESMU-PMT will carry out monitoring activities related to the project during the construction phase by using check lists and notify the Contractor of any violations of the RAP, check the progress reports, advise the client and contractor regarding any violations which require further action, and maintain a record of events and surveys for reference.

In addition, ESMEC as independent consultants will annually monitor the environmental and social aspects of ESMP and ARAP/RAP implementation including those associated with the Contractor's activities as and when required.

The overall responsibility for ESMP and ARAP/RAP implementation under SRP project will rest with the Project Management Team (PMT), Irrigation Department Government of Sindh to be headed by a Project Director. The PD is supported by Additional Director Dams, Additional Director Bunds/Flood Levees, Additional Director Coordination and Technical Assistant. In addition, the PMT will be supported during Environmental and Social Management Plan (ESMP) and Resettlement Action plan (RAP) implementation by Environmental and Social Management Unit (ESMU) to be established within PMT and Project Implementation, Support and Supervision Consultant (PISSC) respectively. The specific responsibilities of the institutions involved in the ESMP and RAP implementation are shown in the **Figure 3** and described below.

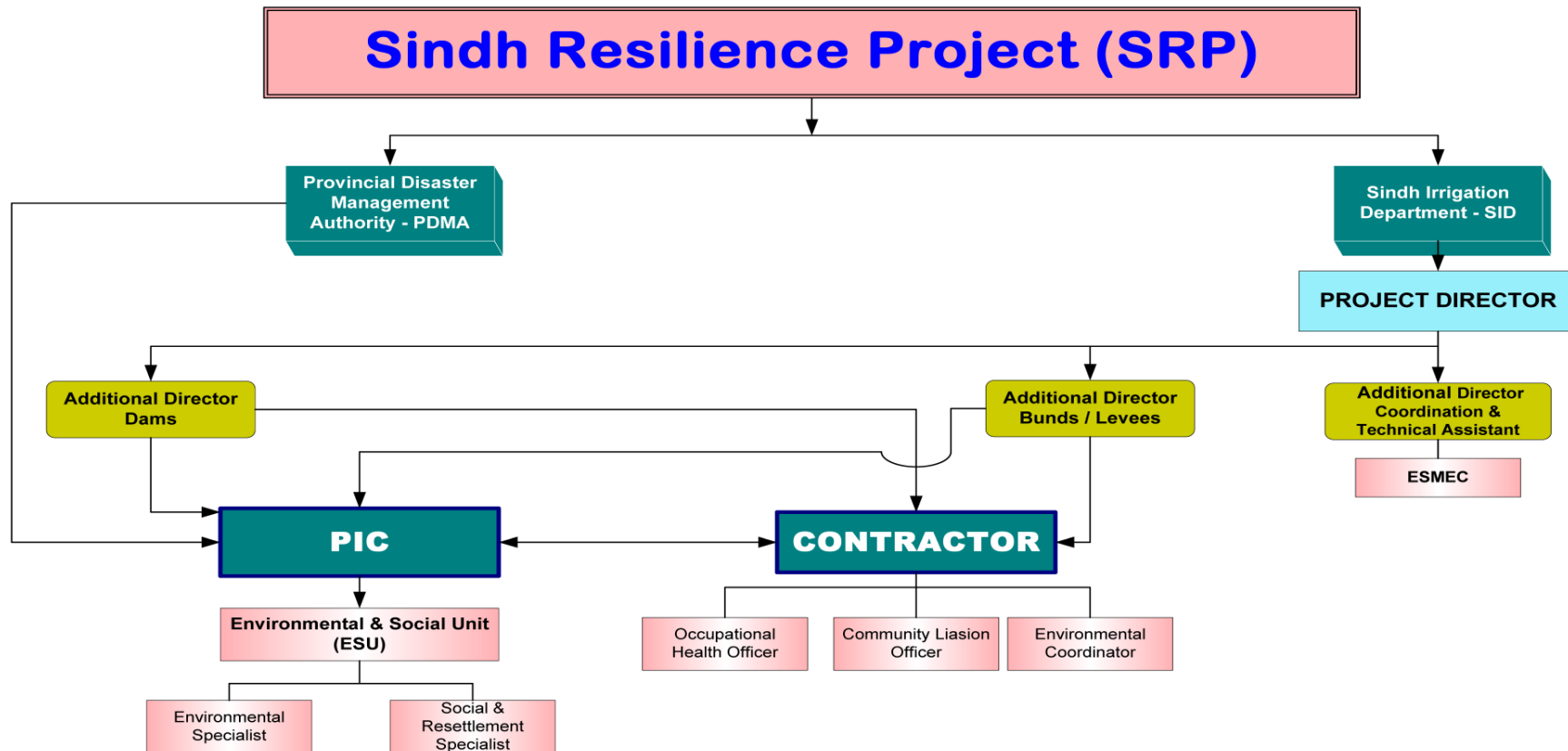
### 7.2 Project Management Team

The overall responsibility for the supervision of ESMP and RAP will rest with the Project Management Team (PMT) under Irrigation Department that will act as apex body of the project to take care of Social/Gender and environmental issues and to take policy decisions at project level. An Environmental and Social Management Unit (ESMU) shall be established within PMT under the supervision of Additional Director Coordination and Technical Assistant (AD). Key positions within the ESMU shall include: Environment Specialist; Social and Resettlement Specialist; Gender Specialist; and Ecological specialists.

The ESMU shall be responsible for supervision of implementing and monitoring the ESMP and RAP. The Staff of ESMU shall be answerable to the Project Director (PD) SRP. The ESMU shall be responsible for the monitoring defined in the ESMP and RAP as part of their overall monitoring of the social and environmental management.



## ORGANIZATION CHART



**Figure 3: Institutional Arrangement for Implementation of RAP**



### **7.2.1 Project Implementation Support and Supervision Consultant (PISSC)**

The Project Implementation Support and Supervision Consultant (PISSC) is to be engaged by the project proponent and shall be responsible for day to day monitoring of the ESMP and RAP on behalf of the Client (PMT) during execution of the Civil Works for sub-projects under the SRP and shall submit periodic reports to the PMT regarding the ESMP and RAP implementation status. The ESMPs prepared or to be prepared shall be part of the Contract documents. In general the PISSC has the following responsibilities pertaining to the environmental aspects of the project:

- Prepare the required documents, review and update the available documents relevant to the Project (including ESA, ESMPs and RAP) and those to be prepared by the Contractor.
- Monitor the implementation of ESMPs and RAP on a regular basis during execution of civil works by the Contractor. An Environmental and Social Unit (ESU) within PISSC shall be established and include the following key positions:
  - a. Environmental Specialist
  - b. Environmental Inspector(s)
  - c. Social and Resettlement Specialist
  - d. Gender Specialist
  - e. Assistant Sociologist (s)

The ESU of PISSC shall be responsible for monitoring the contractor's compliance with the ESMPs and RAPs. The role of the ESU-PISSC shall day to day monitoring of the provisions of the ESMP/RAP with the assistance of social and environmental staff of the Contractor and reporting any non-compliances to the PISSC Chief Engineering and Resident Engineer as well as PMT.

### **7.2.2 Environmental/Social Monitoring and Evaluation (ESMEC) Consultant**

The ESMEC shall be an independent body responsible for external environmental monitoring for the ARAP/RAP on behalf of PMT. The ESMEC will have environmental and social experts and shall carryout intermittent third party monitoring of the project as well as ARAP/RAP.

### **7.2.3 The Contractor**

The Contractor will be responsible for the on-field implementation of the ESMP as well as maintaining responsibility for environmental protection liabilities under Sindh Environmental Protection Act (SEPA), 2014, World Bank safeguard policies, ESMF/RPF, sub-project specific ESMPs and other applicable national as well as provincial policies and regulations.

The Contractor will also be responsible for training his crews in all aspects and implementation of the ESMP. The bid should include an environmental and social mitigation budget as part of the engineering costs of the respective works. The key positions to be filled within the contractor's



staff for implementation of the ESMP include: Environmental Coordinator(s); Occupational Health and Safety (OHS) Officer; and Community Liaison Officer.

### **7.3 Grievance Redressal / Compensation Mechanism**

A Grievance Redressal Mechanism has been devised in the ESMF/RPF SRP which is providing a mechanism to mediate conflict and cut down on lengthy litigation, which often delays development projects. It will also provide a forum to people who might have objections or concerns about their compensation raise their objections and through conflict resolution address their issues adequately.

## 8 RESETTLEMENT BUDGET AND FINANCING

### 8.1 Introduction

This section gives the glimpse of compensation and assistance cost estimates for the buildings /structures, income disturbance and shifting for the affected persons. On the basis of the cost estimation, after consultation with the affected persons and mutually agreed/prevaling rates, compensation cost includes the cost of building /structures etc., livelihood assistance in shape of disturbance allowance for three months, transfer and subsistence allowance and assistance in shape of shifting charges. Details of affectees along with their estimated costs are given in **Annex 3**.

### 8.2 Calculations of Compensation Amounts

#### For Business and Commercial Structures:

Entitlement cost has been calculated @ PKR 125 per square foot. Subsistence allowance has been worked out for three months @ PKR 15,185 per month. Cash compensation for business interruption has been given equal to the three months' profit. Relocation cost is paid @ PKR 5195 per affectee.

#### For Residential Structures:

Entitlement cost has been calculated @ PKR 125 per square foot. Subsistence allowance has been worked out for three months @ PKR 15,585 per month. Relocation cost is paid @ PKR 5,195 per affectee. Cost of re-sinking hand pump has been given @ PKR 15,585 per hand pump.

#### For Community Structures:

As in case of residential and commercial structures, relocating and subsistence (displacement) cost has also been paid at the same rate for community structures as well. Cost of re-sinking of hand pumps is also the same. Entitlement cost has also been calculated @ PKR 125 per square foot except for public buildings for which cost has been estimated as per their present condition.

### 8.3 Resettlement Budget

Total estimated cost for the implementation of this Resettlement Action Plan is expected to be **PKR: 4,533,159 (4.53 million)**. The details of estimated resettlement budget are given below in **Table 13**.

**Table 13: Detailed Cost Estimates for RAP Implementation**

Sr. Nr	Category / Type of Structure or Assets	Estimated Cost (in PKR)
1	Crops compensation	2,378,189
2	Residential Structures	265,645
4	Business Structures	1,477,220
	<b>Total Cost</b>	<b>4,121,054</b>
	<i>10% contingency allowance</i>	412,105
	<b>Grand Total</b>	<b>4,533,159</b>

Sources:

1. Table 2, 3 & 8
3. Annexure 3



## 9 IMPLEMENTATION SCHEDULE

### 9.1 Introduction

A cut-off-date has already been announced on each sub-project in January, 2016 during the stakeholders' consultation process. After final identification of PAPs list, the necessary assistance shall be paid by the concerned PMT SRP. The civil works contractor shall not be mobilized prior to successful implementation of RAP in concurrence with World Bank policies. PMT of Sindh Irrigation Department reserves the right of demolishing such unauthorized structures without paying any compensation simply by serving a notice of eviction for a maximum of two weeks, provided it gets established that those structures were constructed in the Col after the "cut-off-date".

The tentative implementation schedule reflects the sequencing and duration of activities planned, the schedule recognizes that activities will be taking place simultaneously and allows within reason for staggered starts. The implementation schedule is designed to avoid conflicts, but as a contingency, time is allowed for mediation, and the impact this may have no payments is recognized in a certain period allowed for grievance resolution process. Nonetheless, in the spirit of the RAP, the aim will be to have the process finished within specified time frame.

### 9.2 Implementation Schedule

The basic resettlement related steps for preparation and implementation of this Resettlement Action Plan are summarized in implementation schedule shown in **Figure 4**.



S. No.	Activity/Scope	Responsibility	Timeline (Months)															
			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
1	Preparation of draft Resettlement Action Plan and submit to SID	PISSC	█															
2	Preparation of final Resettlement Action Plan after incorporating comments.	PISSC		█														
3	Establishment of Social Task force	PMT			█													
4	Assessment of loss if required and inventory preparation	PMT and PISSC				█												
5	Grievance Resolution	PMT and PISSC					█											
6	Implementation of RAP	PMT and PISSC						█										
7	Assistance / disbursement of compensation	PMT and PISSC							█									
8	Award of Contract for Rehabilitation work	PMT								█								
9	Possession of land/ settlement areas making clearance	PMT, PISSC and Contractor									█							
10	Demolition of affected structures and assets, after the Award of Contract	Contractor										█	█	█	█	█	█	█
11	Rehabilitation works begin	Contractor																
12	Monitoring and Evaluation	ESMECs			█	█	█	█	█	█	█	█	█	█	█	█	█	█

**Figure 4: Tentative Implementation Schedule**

## 10 MONITORING AND EVALUATION

### 10.1 Introduction

Monitoring involves periodic checking to ascertain whether activities are progressing as per schedule while evaluation is essentially a summing up, at the end of the project assessment at the actual achievement in comparison to those aimed at during the implementation. RAP implementation will be monitored both internally and externally.

### 10.2 RAP Implementation

The Resettlement Action (RAP) shall be implemented by the PMT with the support of PISSC and ESMECs.

### 10.3 Monitoring of RAP

As discussed in the ESMF/RPF, the objective of monitoring and reporting of RAP implementation is to identify implementation problems and successes as early as possible so that the implementation arrangements can be adjusted. Two types of monitoring are suggested in the ESMF/RPF one is internal and the other is external monitoring. The internal monitoring is to be carried out by the Project Administration i.e. the Social and Resettlement Specialist of PMT, ESMU-PMT and to be assisted by the PISSC. The external/independent monitoring is to be carried out by Environmental and Social Monitoring and Evaluation Consultants (ESMEC) to be hired by the PMT for the project.

Monthly, quarterly and annual RAP implementation reports will be produced by the ESMU-of PMT and PISSC while ESMEC will be responsible to carry out regular external monitoring beginning at about the same time as implementation activities and continuing until the end of the project. It may continue even beyond project completion period if the standards of living of all PAPs have not at least been restored.

### 10.4 Internal Monitoring

PMT of Sindh Irrigation Department being the proponent of the project will be responsible for interval monitoring through its ESMU of PMT will prepare monthly progress report on the implementation of this RAP. In addition to that, project will need to have a Resettlement Specialist to provide necessary technical assistance and monitor the implementation the RAP activities. Monitoring framework is given in the ESMF/RPF of SRP.

### 10.5 External Monitoring

External monitoring will be initiated the beginning of the RAP implementation by the Environment/Social Monitoring and Evaluation Consultants (ESMECs) to be hired by PMT as





independent consultant, and its results will be communicated to all concerned APs, the PMT and the Bank through quarterly and annual reports. If required by the Client, monthly reports may be produced. The external monitoring will be done through verifying the internal RAP implementation reports of the ESMU of PMT and PISSC, interviewing a random sample of APs in the field, observing the functioning of the resettlement operation at all levels, to assess its effectiveness and compliance with the RAP, checking the type of grievance issues and the functioning of grievance redress mechanisms, surveying standards of living of the APs and advising PMT regarding possible improvements in implementation of the RAP.

The ESMECs will also carry out a post implementation evaluation of the RAP about after completion of its implementation. The compelling reason for this study is to find out if the objective of the RAP has been attained or not. The benchmark data of socioeconomic survey of severely affected APs conducted during the preparation of the RAP will be used to compare the pre and post subproject conditions. The ESMEC will recommend appropriate supplemental assistance for the APs. The outcome of the study will show if the objectives of the RAPs have been attained or not.

#### **10.6 Grievances Redress Mechanism (GRM)**

The communities and individuals who believe that they are adversely affected by the World Bank (WB) financed project may submit complaints under established project-level grievance redress mechanism (GRM) which is given in the ESMF/RPF.

#### **10.7 Reporting**

Monthly, quarterly and annual RAP implementation reports will be produced by the ESMU of PMT and PISSC while ESMEC will be responsible to carry out regular external monitoring.



## ANNEXURE 1: PRE PROJECT CONDITIONS OF EXISTING BUNDS



Pre Project Condition of P.B Bund



Pre Project Condition of B.U Bund





Pre Project View of Kuka Link Bund



Pre Project View of Kuka Wari Bund



Pre project View of Kuka wari retarded Bund



Pre Project View of M.S Bund



Pre Project View of Kotri Guide Bund





## ANNEXURE-2: SITE SPECIFIC PHOTOGRAPHS OF STRUCTURES LIKELY TO BE AFFECTED

### P.B BUND



Pic 1: Crop Area inside the River



Pic 2: Land side of Bund



Pic 3: Shop on PB Bund



Pic 4: Damaged Area of Bund



## B.U BUND



Pic 1: B.U Bund



Pic 2: Land side of Bund



Pic 3: River Side of Bund



Pic 4: Road Parallel to Bund





## KUKA LINK BUND



Pic 1: Kuka Link Bund



Pic 2: Land side of Bund



Pic 3: River Side of Bund



Pic 4: Electric Poll at Land side of Bund





## KUKA WARI BUND



Pic 1: Kuka Wari Bund



Pic 2: Shop at Kuka Wari Bund



Pic 3: Shops at River Side of Bund



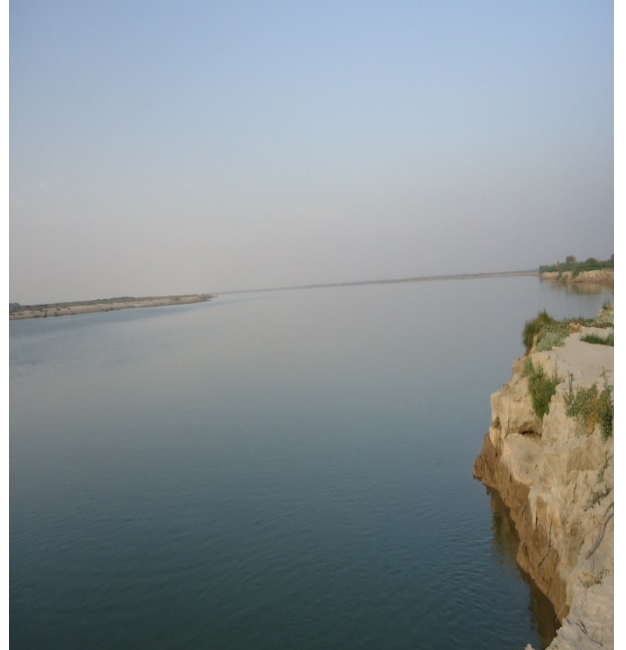
Pic 4: Shop at Kuka Wari Bund



## KUKA WARI RETARDED BUND



Pic 1: Kuka Wari Retarded Bund



Pic 2: River Water after End point of Bund





## M.S BUND



Pic 1: M.S Bund



Pic 2: River side of Bund



Pic 3: Police Chowki at Land side of Bund



Pic 4: Electric Poll at Land side of Bund



## KOTRI GUIDE BUND



Pic 1: Kotri Guide Bund



Pic 2: Barrage at River side of Bund



Pic 3: River Water at River side of Bund



Pic 4: Water at Land side of Bund

### ANNEXURE 3: SINDH RESILIENCE PROJECT (SRP) LIST OF AFFECTED STRUCTURES AND ESTIMATED COST

Sr. Nr.	Approximate Referenced Mile	Name of Head of household	Father's name	CNIC #	Tribe	Family Size			Type and No of Impacted Assets/Structure							Location	Entitled Cost Per (Sq.ft) PKR	Subsistence Allowance Per Affectee whose house is to be relocated (PKR: 15000/Month & Total for 3 Months)	Relocation Cost per Affected	Total Resettlement Cost	
						Male	Female	Total	No and Type of Rooms Residential			Public/Community Assets		Shops							
									Brick Masonry	Huts	Animal Shed	Approximate Area (Sq.ft)	Wooden Huts	Approximate Area (Sq.ft)	No						Approximate Area (Sq.ft)
1	PB bund 11/5	Ladho	Natho	Not available	Malah	2	3	5	0	0	0	1500	0	0	0	0	Inner Slope	125	46,755	5,195	239,450
2	Pb bund 10/7	M.Hassan	Ali Mohammad		Junghai	3	3	6	1	0	0	0	0	0	1	168	Outer Slope	125	46,755	5,195	51,950
3	Kuka Link 20/6	Ghulam Qadir	Ahamad		Magsi	3	3	6	0	0	0	0	0	0	1	500	Inner Slope	125	0	5,195	67,695
4	Kuka Link 20/6	Noor Mohammad	Sukio dal			2	4	6	0	0	0	0	0	0	1	500	Inner Slope	125	0	5,195	67,695
5	Kuka Link 20/6	Mujahid	Nabi Bakhsh			3	3	6	0	0	0	0	0	0	1	600	Inner Slope	125	0	5,195	80,195
6	Kuka Link 20/6	M. Yaqoob	Adrees		Magsi	2	4	6	0	0	0	0	0	0	1	300	Inner Slope	125	0	5,195	42,695
7	Kuka Link 9/6	Wadera Omer			Tandio	3	4	7	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
8	Kuka Link 9/6	Abdl Wahab	M. Rahman			3	5	8	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
9	Kuka Link 9/6	Ghani	Ibrahim	414076241606-3	Jath	4	2	6	0	0	0	0	0	0	1	56	Inner Slope	125	0	5,195	12,195
10	Kuka Link 9/6	Suleman	Saban	414075702625-3	Solangi	5	3	8	0	0	0	0	0	0	1	400	Inner Slope	125	0	5,195	55,195
11	Kuka Link 9/6	Qadir Bux	Bachal	414079698387-5	Khaskhely	2	4	6	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695



12	Kuka Link 9/6	Omer	Naveed	Not available	Tandio	5	6	11	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
13	Kuka Link 9/6	Najeeb	Ali Mohammad	414078487706-5	Memon	1	2	3	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
14	Kuka Link 9/6	Ghul Hassan	M. Sadiq	414075257753-5	Jath	2	3	5	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
15	Kuka Link 9/6	Ali Hassan	Haji Aziz	414071913068-5	Memon	5	5	10	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
16	Kuka Link 9/6	M. Haneef	Shabir Ahamad	414079600901-9	Khaskhely	4	3	7	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
17	Kuka Link 9/6	Fathah Khan	Bismillah	Not available	Patan	5	4	9	0	0	0	0	0	0	1	900	Inner Slope	125	0	5,195	117,695
18	Kuka Link 9/6	Gul Zaman	Peroz Khan	414070377060-9	Patan	2	1	3	0	0	0	0	0	0	1	420	Inner Slope	125	0	5,195	57,695
19	Kuka Link 9/6	Haji Karim	Bismillah	Not available	Patan	3	5	8	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
20	Kuka Link 9/6	Fathah Khan	Bismillah	Not available	Patan	5	4	9	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
21	Kuka Link 9/6	Ahamad Shah	Panu Shah	414077217511-5	Syed	3	2	5	0	0	0	0	0	0	1	400	Inner Slope	125	0	5,195	55,195
22	Kuka Link 9/6	Qasim	Ismail	Not available	Malah	1	1	2	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
23	Kuka Link 9/6	Ahamad	Usman	414070680106-3	Bhail	4	3	7	0	0	0	0	0	0	1	400	Inner Slope	125	0	5,195	55,195
24	Kuka Link 9/6	Ramazan	M. Hasham	414075924652-1	Jath	5	4	9	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
25	Kuka Link 9/6	Salah	Allah Bakhsh	414076703691-7	Jath	6	6	12	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
26	Kuka Link 9/6	Gul Mohammad	Mohammad	414074734053-7	Jath	2	3	5	0	0	0	0	0	0	1	400	Inner Slope	125	0	5,195	55,195
27	Kuka Link 9/6	Ahamad Shah	Haji Bachal	Not available	Syed	5	6	11	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
28	Kuka Link 9/6	M. Essa	Natho	Not available	Memon	2	3	5	0	0	0	0	0	0	1	360	Inner Slope	125	0	5,195	50,195

29	Kuka Link 9/6	Summar		Not available	Malah	3	3	6	0	0	0	0	0	0	1	180	Inner Slope	125	0	5,195	27,695
30	Kuka Wari	Shah nawaz Zangejo	Omar Zangejo	414073286548-3	Zengejo	4	6	10	0	0	0	0	0	0	1	100	Inner Slope	125	0	5,195	17,695
31	Kuka Wari	Mohammad khan zangejo	Fathah Mohammad	414074917713-3	Zengejo	0	0	0	1	0	0	0	0	168	0	0	Inner Slope	125	0	5,195	26,195
32	Kuka Wari	Mohammad khan zangejo	Fathah Mohammad	414074917713-3		4	4	8	0	0	0	0	0	0	1	192	Inner Slope	125	0	5,195	29,195
33	Kuka Wari	Mohammad Hussain	Mussa zangejo	414079326623-9	Zengejo	2	4	6	0	0	0	0	0	0	1	216	Inner Slope	125	0	5,195	32,195
34	Kuka Wari	Ali Hassan	wali Mohammad	414072225400-3	Zengejo	1	2	3	0	0	0	0	0	0	1	224	Inner Slope	125	0	5,195	33,195
35	Kuka Wari	Gul Hassan	M. Ibrahim	414074249876-7	Zengejo	3	3	6	0	0	0	0	0	0	1	224	Inner Slope	125	0	5,195	33,195
36	Kuka Wari	M. Hassan	Mohammad Rahim	414077887363-5	Zengejo	4	3	7	0	0	0	0	0	0	1	252	Inner Slope	125	0	5,195	36,695
37	Kuka Wari	Nazeer Ahamad	M. Hassan	414078112942-9	Zengejo	5	2	7	0	0	0	0	0	0	1	312	Inner Slope	125	0	5,195	44,195
38	Kuka Wari	Rasool Bux	Omar Zangejo	414071715687-5	Zengejo	2	1	3	0	0	0	0	0	0	1	184	Inner Slope	125	0	5,195	28,195
39	Kuka Wari	Mohammad Rafiqe	M.Ali	414079648483-3	Zengejo	3	4	7	0	0	0	0	0	0	1	266	Inner Slope	125	0	5,195	38,445
<b>Total</b>						<b>123</b>	<b>131</b>	<b>254</b>	<b>2</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37</b>					<b>93,510</b>		<b>1,742,865</b>





#### ANNEX 4: LIST OF PARTICIPANTS IN THE CONSULTATIVE/DISCLOSURE WORKSHOP

	Name of the Participant	Organization	Designation
1	Zahoor Ahmed Sehito	Small Dams	Assistant Executive Engineer
2	Nadeem Jokhio	Small Dams	Assistant Executive Engineer
3	Ali Muhammad	Small Dams	Assistant Executive Engineer
4	Muneer	Irrigation Department	Assistant Executive Engineer
5	Mujeeb Rehman	Irrigation Department	Assistant Executive Engineer
6	M. Usman Malik	Irrigation Department, Sonda Sub-division	Assistant Executive Engineer
7	Balram Dodani	Irrigation Department	Assistant Executive Engineer
8	Dr. Ali Asghar Mahesar	PMO	Deputy Director (Env)
9	Shoaib Ahmed Sughrio	Irrigation Department, Kalri Baghar Division	Executive Engineer
10	Shafqat Hussain	Irrigation Department, Pinyari Circle	Superintendent Engineer
11	Ibrahim Samoon	Associated Consulting Engineers (ACE)	Regional Head
12	Ghulam Mohiuddin Mughal	Irrigation Department	Executive Engineer
13	Sardar Muhammad Kakar	Associated Consulting Engineers (ACE)	Team Leader
14	Rubina Aziz	Associated Consulting Engineers (ACE)	Sociologist
15	Attaullah	Associated Consulting Engineers (ACE)	Ecologist
16	Muhammad Ramzan	-	Landlord
17	Ghulam Rasool	-	Landlord
18	Ali Muhammad Hingoro	-	Social Worker
19	Nisar Ahmed Junejo	Irrigation Department	Assistant Executive Engineer
20	Wasi Ahmed	Irrigation Department	Assistant Executive Engineer
21	Fareed Ahmed Memon	Irrigation Department, Baghar Sub-division	Assistant Executive Engineer
22	Azimullah	Irrigation Department	Assistant Executive Engineer
23	Ali Hassan Behrani	Irrigation Department	Assistant
24	Eijaz	DACREP	Assistant
25	Shafi Muhammad	Irrigation Department	Pesh Imam
26	Ghulam Abbas	Irrigation Department	Sub-Engineer
27	Ghulam Rasool	-	Landlord
28	Abdul Rasool	-	Landlord
29	Muharram Solangi	-	Landlord
30	Khamiso Khan Shar	Education Department	Teacher
31	Ghulam Muhammad Shar	Education Department	Teacher
32	Angario Samo	-	Landlord
33	Manzoor Ali Soomro	-	Landlord
34	Mir Ali Solangi	Irrigation Department	Darogo
35	Ziarat Hussain	-	Landlord
36	Nasir Ahmed	Irrigation Department	Darogo
37	Asif Ali Siddiqui	Irrigation Department	Darogo



	Name of the Participant	Organization	Designation
	Sagheer Ahmed Walhari	Irrigation Department	Sub-Engineer
38	Tanveer Ahmed Walhari	Irrigation Department	Sub-Engineer
39	Shanker	Irrigation Department	Clerk
40	A. Sattar Bahrani	Irrigation Department	Sub-Engineer
41	A.Khalique Soomro	-	Landlord
42	Nazir Ahmed Walhari	-	Landlord ,BU Bund
43	Hyder Ali	Irrigation Department	-
44	Asif Ali Solangi	Irrigation Department	-
45	M. Yakoob Jalbani	-	-
46	Khan Muhammad	Irrigation Department	Clerk
47	Muhammad Essa	Irrigation Department	Naib Qasid
48	Haji Mallah	Irrigation Department	-
49	Muhammad Suleman	Irrigation Department	Darogo
50	Akram Khan	Irrigation Department	Darogo
51	M. Ilyas	-	Landlord
52	M. Hussain Katyar	APCA, Thatta	Jr. Clerk
53	Abdul Hameed Shaikh	APCA, Thatta	Jr. Clerk
54	Farooq Memon	Associated Consulting Engineers (ACE)	Environmental Engineer
55	Sajid Abbas	Irrigation Department	Assistant Executive Engineer
56	Kashif Channa	Livestock and Fisheries Department	Assistant Warden (Fisheries)
57	Adnan Khalid Soomro	Livestock and Fisheries Department	Assistant Warden (Fisheries)
58	Fareed A. Memon	Irrigation Department	Executive Engineer
59	Abdul Qadir Palijo	Irrigation Department	Superintendent Engineer
60	Ghulam Mohiuddin Soomro	-	Landlord
61	Ghulam Mustafa Memon	Irrigation Department	Sub-Engineer
62	Muneer Ahmed	Associated Consulting Engineers (ACE)	Environmental Engineer
63	Javed Ali	Associated Consulting Engineers (ACE)	Computer Systems Incharge
64	Naeem Samoon	Associated Consulting Engineers (ACE)	Senior Environmentalist