



Sindh Barrages Improvement Project

Rehabilitation of Guddu Barrage: Abbreviated Resettlement Plan

July 2017

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Resettlement Plan

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Abbreviations

ARP	-	Abbreviated Resettlement Plan
BoR	-	Board of Revenue
CoI	-	Corridor of Impact
GRM	-	Grievance Redress Mechanism
ESU	-	Environmental and Social Unit
ID	-	Irrigation Department
LAA	-	Land Acquisition Act
M&EC	-	Monitoring and Evaluation Consultants
NGO	-	Non-Governmental Organisation
OP	-	Operational Policy
PAPs	-	Project Affected Persons
PCMU	-	Project Coordination and Management Unit
PIC	-	Project Implementation Consultants
PMO	-	Project Management Office
SBIP	-	Sindh Barrages Improvement Project
RP	-	Resettlement Plan
RPF	-	Resettlement Policy Framework
WB	-	World Bank

Executive summary

Introduction

The World Bank is supporting the Sindh Irrigation Department (Government of Sindh) in the implementation of the Sindh Barrages Improvement Project, which includes the rehabilitation of Guddu Barrage. It is anticipated that works to be implemented during the rehabilitation of Guddu Barrage (the sub-project) will have adverse social impacts associated with the displacement of a number of residential and commercial structures. The most significant impact is the loss of shelter of Project Affected Persons (PAPs), and loss of income for those owning commercial structures. Therefore, the WB's Operational Policy 4.12 [Involuntary Resettlement] is triggered for this sub-project.

As the number of PAPs is less than 200, OP 4.12 allows that an Abbreviated Resettlement Plan may be prepared. This approach was agreed with the World Bank during a mission in May 2017. This document forms the Abbreviated Resettlement Plan for the Rehabilitation of Guddu Barrage.

The principal objective of this Plan is to ensure that all affected persons losing assets, infrastructure and livelihood as a result of the sub-project are eligible to receive compensation and livelihood assistance. Such compensation and assistance shall be provided irrespective of ownership of title to the land they occupy.

Policy, Legal and Administrative Framework

This Plan has been prepared in accordance with the Resettlement Policy Framework for the project (as included within the Social Management Framework for the project¹), Pakistan Government policy and World Bank policy.

In accordance with World Bank OP 4.12, entitlement provisions for PAPs are based on the following principles:

- Entitlement for those with rights (formal or recognisable) to the land they occupy:
 - Cash compensation for lost land, or provision of alternative land with formal rights (agricultural land or housing sites)
 - Cash compensation for lost assets, or provision of alternative assets (including housing)
 - Moving allowance
 - Transition allowance
 - Compensation for loss of earning in the case of loss of business
- Entitlement for those without rights to the land they occupy:
 - Cash compensation for lost assets
 - Provision of alternative site to reconstruct lost structural assets, or cash compensation adequate to gain formal rights to alternative land adequate for reconstruction of lost structural assets
 - Moving allowance
 - Compensation for loss of earning in the case of loss of business

¹ Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Rehabilitation and Modernization of Guddu Barrage, Social Management Framework', December 2014, Government of Sindh

- Additional cash compensation for PAPs who are considered vulnerable.

In accordance with the Resettlement Policy Framework, this Plan will be reviewed and, where applicable, approved by both the Irrigation Department and the World Bank.

Description of the Sub-Project

Guddu Barrage is located in the District of Kashmore in the north of Sindh Province, approximately 10 miles North East of Kashmore Town. The sub-project involves the rehabilitation of Guddu Barrage itself, and the rehabilitation (raising and widening) of river training and flood embankments upstream of Guddu Barrage. The aim of the sub-project is to improve the reliability and safety of Guddu Barrage and thereby safeguard supplies of water to over 2.6 million people, across 1.2 million hectares of irrigated land, and improve flood management for local communities.

The Irrigation Department owns, operates and maintains the barrage and its river training and flood embankments. A Project Management Office has been formed within the Irrigation Department, and is the implementing agency for the Sindh Barrages Improvement Project and, therefore, the project proponent for the sub-project.

The works under the sub-project have been sub-divided into two civil works contracts referred to as SBIP/G2 and SBIP/G3. The following works are included in contract SBIP/G2:

- Replacement of all gates on Guddu barrage, and the head regulators to Ghotki, Beghari Sindh and Desert Pat feeder canals;
- Replacement of mechanical and electrical equipment on the barrage and head regulators;
- Provision of equipment for the future operation and maintenance of the barrage;
- Minor repairs to the barrage and head work civil structures;
- Modification to the left-hand pocket divide wall; and,
- Construction of an irrigation colony and building works.

The following works are included in contract SBIP/G3:

- Strengthening, raising and widening of the upstream embankments (marginal bunds) and training works (spurs and guide banks); and,
- Construction of new spur to improve the river approach conditions.

Socio-Economic Baseline

The socio-economic profile of PAPs is based on a census of all households and businesses falling within the footprint of works under this sub-project, carried out in June 2017. The socio-economic baseline of the sub-project area is also supplemented with secondary data.

Arable agriculture is the most significant source of income for those in the sub-project area. Being a riverine area situated between the flood embankments, agricultural lands in the sub-project area are commonly flooded in the summer. During very high flows in the Indus, the flooding will extend into inhabited areas of the sub-project area. Households also commonly own livestock to provide a domestic source of milk, meat and ghee, but also to provide a secondary income.

Of the sixteen households directly impacted by the sub-project, the primary income source of eight households is from farming. With the exception of two acres of farmland within the footprint of the works, no farm land was found within the corridor or impact. These two acres are

illegally farmed on government owned land. All other farming households are farming land outside the corridor or impact.

Five households earn their primary income from employment as general labourers, most commonly engaged on farms outside the corridor of impact, but also working in shops or construction beyond the sub-project area during the summer when farmland is flooded. Two households earn their primary income from fishing waterbodies surrounding Guddu Barrage and selling fish to passing traffic, as well as at the nearby cities.

The final household earns their primary income from an agricultural based small business by renting a tractor to farmers in the sub-project area. This household earns a secondary income by buying produce from local farmers and selling this at a profit to wholesalers in Kashmore.

Income levels in the sub-project area are low, and 88% (all but two) of the affected households are living below the poverty line. These households are considered vulnerable within this Plan.

Social organization in all villages within the sub-project area is strongly based on Biradari (tribal) system, where each caste has a caste leader. The main castes are Mazari, Mirani and Malik. Balochi language is commonly spoken in the sub-project area. Only 4.5% of the population in the sub-project area was found to be literate, and of these, the majority are only educated to a primary level.

Electricity, road networks, primary level education and mobile phone facilities are available (to varying degrees) in the sub-project area. However, access to sewerage, drainage, water supply, gas, basic health unit and land line telephone facilities are not available.

Women in the sub-project area are commonly involved in agricultural activities, however, studies as part of this Plan indicate the women's participation in household decision making is very limited, especially amongst younger women.

Although a number of NGOs were identified to be active in the sub-project area following severe flooding in 2010 and 2011, none are currently active.

Several households living in the riverine areas occasionally move to the embankments at Guddu on a temporary basis when the flow in the River Indus is high and there is a risk of flooding of their properties. Following the floods, most of households return to their villages. However, over the last four years, a small number of households have begun to construct permanent structures on the embankments, preferring to remain on the embankments, rather than moving on a temporal basis. Typically, the originating villages and place of work of these households is close to their current location on the embankments, so they are not disadvantaged by remaining on the embankments. All these structures have been constructed illegally on government owned land, and their owners have no legal rights to the land on which these structures are located.

Consultations

Consultations were completed with affected persons during the preparation of this Plan. Representatives from the Irrigation Department and Project Management Office were present at these consultations. Note that a process of wider consultations was carried out as part of the environmental and social assessments for the project in 2014.

During these consultations, affected persons were informed of their rights pertaining to resettlement and compensation, entitlements and of the cut-off date for these entitlements. Resettlement options were also discussed, and affected households expressed their preference to manage their own relocation, with adequate cash compensation for the replacement of their

affected structures. Affected households prefer to return to their native villages, where their extended families are living. The affected families reported that they have free access to land within their native villages. Consultations were also carried out with community leaders in the host (native) villages which confirmed that the affected households would be readily accepted back.

Consultations were also carried out with women in the corridor of impact to discuss resettlement impacts, and other indirect sub-project impacts. The primary concerns of affected women were determined to be the need for adequate compensation for rebuilding homes and shifting their belongings, as well as risks to their safety, security and privacy as a result of migration of construction labourers from outside the sub-project area.

During consultations, PAPs expressed keen interest in labour employment opportunities which will arise from the sub-project works.

Cut-Off Date

The census survey was completed for the preparation of the Plan. The survey began on the 9th June 2017, and as such the cut-off date for eligibility under this Plan is the 9th June 2017.

Resettlement Impacts

Resettlement impacts are expected in the following sub-project locations:

- Existing left and right spur complexes upstream of Guddu Barrage;
- Planned left spur extension upstream of Guddu Barrage; and
- Existing left guide bund at Guddu Barrage.

The footprint of the works on these embankments is referred to as the Corridor of Impact – all structures within the Corridor of Impact will be removed to allow implementation of the works.

A total of 29 privately owned structures and four hand pumps have been constructed illegally within the corridor of impact, and will be removed under the sub-project. Of these structures, 19 are owned by 16 households – of these: 15 are residential, two are commercial, and two are otaqs (non-income generating guest houses). The remaining ten have been abandoned and no impact is expected as a result of their removal.

A total of 16 households, who own the impacted structures, will be affected by the sub-project. One of these households is also illegally farming two acres of land within the corridor of impact. The impacted household farms a total of 15 acres, 13 of which will not be impacted by the sub-project. All other affected farming households are farming land outside the corridor of impact. The total number of PAPs is 133. Of these, 128 are living within the corridor of impact and will be displaced by the sub-project. The other five PAPs belong to one household owning the two commercial structures in the corridor of impact – this household resides outside the corridor of impact.

In addition to the privately-owned structures, two mosques are also situated in the corridor of impact, one is community owned and the second is abandoned. Both will be removed under the sub-project. No impact is expected as a result of the removal of the abandoned mosque.

14 of the households are considered to be vulnerable as they have low and fragile incomes, and may experience circumstances which will result in a sudden and unexpected decrease in the income (such as unavailability of employment) or an increase in their household expenditure (such as illness or death in the family). Should such a change coincide with other sub-project

impacts, the household will be less able to absorb the change without compromising the health and wellbeing of the family.

Note that the permanent acquisition of privately owned land is not required for this sub-project.

The resettlement impacts are summarised in the following table. Note that there are 16 impacted households in total, one household may be subject to multiple impacts detailed in the following table.

Table 1: Summary of Resettlement Impacts

Type of Loss	Application	Definition of Entitled Person	Unit	Total
Structures (residential, or institutional) and hand pumps	Entire loss of structure	Owner of affected structure without title or right to land at which it is sited	Impacted households	15
Structures (religious)	Entire loss of structure	Impacted community	Impacted community	1
Structures (commercial)	Entire loss of structure	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Impacted households	1
Land (residential, commercial, industrial, religious or institutional - excluding assets)	Loss of land without sufficient remaining land for continued use/habitation	PAPs without title (Squatter/ Informal Settlers)	Impacted households	16
		Impacted community	Impacted community	1
Land (agricultural - excluding standing crops)	Partial and permanent loss of land with remaining holding economically viable (greater than 0.5 acres)	PAPs without title (Squatter/ Informal Settlers)	Impacted acres (Impacted households)	2 (1)
Loss of crops	Loss of planted crops that could not be harvested	Owner of affected crop (regardless of land ownership rights)	Impacted acres	2
			(Impacted households)	(1)
Loss of trade/ occupation or business incomes	Loss of trade/occupation or business due to dislocation or loss of asset (except agricultural land or crops)	Owner or employee of affected business	Impacted households	1
Any loss above	Vulnerable allowance	PAP classed as vulnerable regardless of legal entitlement to land	Impacted households	14

Compensation and Resettlement Assistance

Compensation and resettlement assistance proposed in this Plan is in accordance with the Resettlement Policy Framework for the project, and is based on the findings of consultations with affected persons.

Owners of affected structures, including hand pumps, will be provided cash compensation for their impacted structures, regardless of whether they own the land on which the structure is situated. Valuation of compensation is based on market rates to rebuild, or reinstall (in the case of handpumps), these structures. Affected households will also be paid a cash transport allowance to shift the contents of the affected structures. The value of the transport allowance is

based on local rates and is dependent on the relocation distance. As it is not possible to identify a single owner of the community mosque, reconstruction of this mosque will be managed through one of the civil works contracts (SBIP/G3) under this sub-project.

Owners of affected residential structures have been consulted and have agreed to relocate to their native villages – they are not eligible for any additional compensation, but will be provided compensation above for loss of affected structures, and a vulnerability allowance where applicable.

The household owning the impacted commercial structures will be permitted to rebuild these at an alternative location on the embankment, but without the transfer of title to ownership of this land. The household will also be provided a livelihood allowance in cash which is equivalent to three months' minimum wage in Pakistan.

The household farming the two acres of impacted farmland will be provided cash compensation for the loss of any crops planted, but not harvested, at the time of impact. The compensation rate has been calculated based on the average yield and value of cultivated crops during the June 2017 field survey. As the area is illegally farmed government owned land, and the impacted area accounts for only a portion of the land farmed by the household, the household is not eligible for any further compensation or assistance for this loss, with the exception of a vulnerability allowance.

The 14 households considered to be vulnerable will also be offered an additional cash allowance equivalent to one month's minimum wage to increase their resilience to other direct impacts under this sub-project.

Implementation

The Project Management Office will have overall responsibility for the implementation of this Plan. The Plan also defines the role of other stakeholders during implementation, and defines the Grievance Redress Mechanism.

An implementation schedule is included in the Plan, this schedule ensures implementation of the Plan prior to implementation of sub-project works which will have a direct impact on any person.

Monitoring will be completed internally by the Project Management Office and externally by an independent Monitoring and Evaluation Consultant. A monitoring framework is included in the Plan.

The total cost for implementation of the Plan is estimated to be PKR 3,232,995 (USD 30,790). This includes contingencies, training and monitoring costs.

1 Introduction

1.1 Sindh Barrages Improvement Project

The World Bank (WB) is supporting the Government of Sindh in the implementation of the Sindh Barrages Improvement Project (SBIP). This project is split into the following components:

- Component A: Rehabilitation of Guddu Barrage and its associated structures;
- Component B: Improved Barrage Operation - to support the establishment of a Barrage Management Organisation; and,
- Component C: Project Management, Monitoring and Evaluation.

SBIP is being implemented by the SBIP Project Management Office (PMO), which has been formed within the Sindh Irrigation Department (ID), Government of Sindh.

1.2 Purpose of this Report

Physical displacement could bring about disruption and impoverishment to communities. Therefore, it should be avoided or minimized by exploring all viable alternatives. If displacement is inevitable, compensation plans should be developed in the early stages of the planning process of the project. In accordance with the WB's Operational Policy 4.12 [Involuntary Resettlement], a Resettlement Plan (RP) is required for any WB funded project involving the potential physical or economic displacement resulting from the acquisition or use of land and other assets for a project regardless of the total number of people impacted.

The scope and level of detail of resettlement planning will vary with circumstances, depending on the project's complexity and the magnitude of its effects. The WB seeks to promote the improvement of the living standards of Project Affected Persons (PAPs). Thus, resettlement activities should result in visible improvements in the economic conditions and social well-being of affected people and communities. As a minimum requirement, a RP must ensure that the livelihood of PAPs is restored to pre-project levels.

It is anticipated that works to be implemented during the rehabilitation of Guddu Barrage (component A of the SBIP – referred to as 'the sub-project') may have some adverse social impacts associated with the displacement of a number of residential and commercial structures. The most significant impact is the loss of shelter of PAPs, and loss of income for those owning commercial structures. Therefore, OP 4.12 is triggered for this sub-project.

As the number of PAPs is less than 200, OP 4.12 allows that an Abbreviated Resettlement Plan (ARP) may be prepared. This approach was agreed with the WB during a mission in May 2017. This document forms the ARP for Component A of SBIP (Rehabilitation of Guddu Barrage).

This ARP has been prepared to detail the social consequences of the works planned under this sub-project and propose appropriate measures to reduce the adverse effects. The ARP has been prepared in accordance with the Resettlement Policy Framework (RPF) for the project (as included within the Social Management Framework²), Pakistan Government policy and WB policy. In accordance with OP 4.12, this ARP includes:

- Findings of a socio-economic survey;

² Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Rehabilitation and Modernization of Guddu Barrage, Social Management Framework', December 2014, Government of Sindh

- Census survey of displaced persons;
- Valuation of assets;
- Description of compensation and other resettlement assistance to be provided;
- Consultations with those to be displaced about acceptable alternatives;
- Institutional responsibility for implementation and procedures for grievance redress;
- Arrangements for implementation;
- Arrangement for monitoring;
- A timetable for implementation; and.
- A budget for implementation.

1.3 Objectives of the Abbreviated Resettlement Plan

The potential for direct economic and social impacts to arise from implementation of this sub-project have been identified. As such this ARP has been prepared as a plan for mitigation of these effects and to, at least, maintain living standards of those affected by the sub-project activities. It includes the findings of socio-economic studies, census survey, consultations, parameters for entitlement packages for PAPs, the institutional framework, mechanisms for consultation, grievances resolution and the implementation timeframe.

Development projects that displace people involuntary can generally give rise to economic, social and environmental problems. Involuntary resettlement may cause severe long-term hardship, impoverishment and environmental damage without the application of appropriate measures to mitigate these impacts. This ARP outlines the likely impacts resulting from the sub-project interventions and the mitigation measures that will be adopted to address these adverse impacts.

The principal objective of the ARP is to ensure that all affected persons losing assets, infrastructure and livelihood as a result of the sub-project are eligible to receive compensation and livelihood assistance. Such compensation and assistance shall be provided irrespective of ownership of title to the land.

The following are the specific objectives of this ARP:

- Identify specific social and resettlement impacts of the sub-project by types and their mitigation;
- Identification of those to be directly impacted as a result of sub-project implementation;
- Present a strategy for achieving the objectives of the WB policy and the RPF for the project;
- Provide a framework for implementation of strategies to ensure payment of compensation and delivery of other benefits to PAPs;
- Provide details on the range of entitlements to improve the living standards, income earning capacity and production levels of PAPs or at least restore them to pre-project levels;
- Provide details on the public information consultation and participation and grievance redress mechanism in project planning, design and implementation;
- Identify and provide an estimate of required resources for implementation of recommended strategies, including monetary budget; and,
- To provide a framework for supervision, monitoring and evaluation of implementation of this ARP.

2 Policy, Legal and Administrative Framework

This ARP has been prepared in accordance with the RPF for the project (as included within the Social Management Framework³), Pakistan Government policy and WB policy.

2.1 Legal Framework

The Land Acquisition Act (LAA) of 1894 is the key legislation that has direct relevance to resettlement and compensation in Pakistan. Please refer to the RPF for a full review of the LAA.

2.2 World Bank Framework

2.2.1 OP 4.12 – Involuntary Resettlement

As detailed in Section 1.2, the WB OP 4.12 on Involuntary Resettlement has been triggered.

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; and,
- The Policy defines the requirement of preparing a resettlement plan or a RPF, in order to address the involuntary resettlement.

Please refer to the RPF for a full review of OP 4.12.

As the number of PAPs is less than 200, OP 4.12 allows that an ARP may be prepared. This approach was agreed with the WB during a mission in May 2017.

2.2.2 World Bank Policy on Access to Information

The WB allows access to any information in its possession (with exceptions, such as where such information could cause harm to specific parties or interests). The policy is based on the following five principles:

- Maximizing access to information;
- Setting out a clear list of exceptions;
- Safeguarding the deliberative process;
- Providing clear procedures for making information available; and

³ Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Rehabilitation and Modernization of Guddu Barrage, Social Management Framework', December 2014, Government of Sindh

- Recognizing requesters' right to an appeals process.

Exceptions to access to information include:

- Personal information (of Bank staff);
- Communications within and between Governors and/or Executive Directors' Offices;
- Proceedings of the WB Ethics Committee;
- Information subject to Attorney-Client Privilege;
- Information which may compromise the safety and security of individuals, the environment and assets and documents belonging to the WB or its staff;
- Information restricted under separate disclosure regimes or investigative information;
- Information provided to the WB in confidence;
- WB corporate administrative matters;
- WB deliberative information; and,
- Some financial information

All other information held by the WB is to be made available in accordance with the WB Access to Information Policy⁴. Where access to information is denied, the requester may file an appeal where the WB has violated this policy, or there is a public interest case to override the exceptions to the policy.

2.3 Resettlement Policy Framework for Sindh Barrages Improvement Project

This ARB has been prepared in accordance with the RPF, the key sections of which are summarised here:

2.3.1 Comparison of Pakistan and World Bank Policies

Pakistan's environmental and social assessment procedures are in general based on and in line with the environmental guidelines of the WB. However, there are some contradictions between the Pakistan legislation and the WB safeguards particularly regarding land acquisition and the resettlement of PAPs. Please refer to the RPF for a full comparison of the policies.

In principle, Pakistan's law and WB policy adhere not only to the objective of compensation for affected families, but also to the objective of rehabilitation. However, Pakistan's law is unclear on how rehabilitation is to be achieved and in practice the provision of rehabilitation is left to ad hoc arrangements taken by provincial governments and the specific project proponents. To clarify these issues and reconcile eventual gaps between Pakistan's Law and WB Policy, the RPF requires that this ARP is prepared to ensure the following:

- Compensation for any privately-owned land lost as a result of the works;
- Compensation for lost assets regardless of rights to land on which they are sited;
- Valuation of assets and land at the prevailing market rate;
- Resettlement assistance to be offered to all PAPs, regardless of legal entitlement to the land they occupy;
- Provision of additional allowances for vulnerable PAPs;
- Provision of additional allowance for those who may suffer commercial losses; and,
- Establishment of a Grievance Redress Committee as part of any RAP.

⁴ Available at <http://documents.worldbank.org/curated/en/391361468161959342/pdf/548730Access011y0Statement01Final1.pdf>

2.3.2 Eligibility and Entitlement

This ARP has been prepared in accordance with the criteria for eligibility and entitlement defined in the RPF:

2.3.2.1 Category of Displaced Person

The likely displaced persons can be categorized into following groups, namely:

Affected Individual (or PAP): An affected individual is one who suffers loss of assets or investments, land and property and/or access to natural and/or economical resources as a result of the sub-project and to whom compensation is due. For example, an affected individual is a person who farms, or who has built a structure on land that is now required by a sub-project for purposes other than farming or residence by the initial individuals. Affected individuals could be title holders (those who have formal legal right of land), squatters (those occupying land for residential or commercial purposes), or encroachers (those farming, logging, grazing, or making some other extractive use of the land). Affected individuals are also referred to as Project Affected Persons (PAPs) in this ARP.

Affected Household: A household is affected if one or more of its members is affected by project activities, either by loss of property, land, loss of access or otherwise affected in any way by project activities. This provides for: (a) any members in the households, men, women, children, dependent relatives and friends, tenants; (b) relatives who depend on one another for their daily existence; (c) other vulnerable people who cannot participate for physical or cultural reasons in production, consumption, or co-residence.

Affected Local Community: A community is affected if project activities affect their socio-economic and/or social-cultural relationships or cohesion.

Vulnerable Households: Vulnerable households may have different land needs, or reduced ability to absorb changes, or needs unrelated to the amount of land available to them and may include: (a) unmarried women living alone, (b) elderly, (c) infirm or ill, (d) orphans, and (e) those living below the poverty line. The income levels have been considered in relation to the poverty line of Pakistan.

2.3.2.2 Eligibility Criteria

Each category of vulnerable person or household must be compensated according to the nature of the economic loss suffered by loss of access to or use of the land acquired by the sub-project.

WB OP 4.12 suggests the following three criteria for eligibility;

1. Those who have formal legal right of land (including customary and traditional rights) recognized under the laws of the country.
2. Those who do not have formal legal rights of land at the time a census begins but have a claim to such land or assets provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement policy.
3. Those who have no recognized legal right or claim of the land they are occupying.

Those covered under 1) and 2) above are to be provided compensation for the land they lose, and other assistance in accordance with the policy. Persons covered under 3) above are to be provided with resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in the RPF, if they occupy the project area prior to a cut-off date established by a RP and acceptable to the WB. Persons who

encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in 1), 2) or 3) above are to be provided with compensation for loss of assets other than land.

It is clear that all affected persons irrespective of their status or whether they have formal titles, legal rights or not, are eligible for some kind of assistance if they occupied the land before the entitlement cut-off date. The entitlement cut-off date refers to the time when the assessment of persons and their property in the sub-project area is carried out, i.e. the time when the project area has been identified and when the socio-economic study is taking place. Thereafter, no new cases of affected people will be considered. Persons who encroach upon the area after the socio-economic survey (census and valuation) are not eligible for compensation or any form of resettlement assistance.

2.3.2.3 Entitlements

Entitlement provisions for PAPs are given in Table 2. In accordance with WB OP 4.12, the entitlement matrix is based on the following principles:

- Entitlement for those with rights (formal or recognisable) to the land they occupy:
 - Cash compensation for lost land, or provision of alternative land with formal rights (agricultural land or housing sites)
 - Cash compensation for lost assets, or provision of alternative assets (including housing)
 - Moving allowance
 - Transition allowance
 - Compensation for loss of earning in the case of loss of business
- Entitlement for those without rights to the land they occupy:
 - Cash compensation for lost assets
 - Provision of alternative site to reconstruct lost structural assets, or cash compensation adequate to gain formal rights to alternative land adequate for reconstruction of lost structural assets
 - Moving allowance
 - Compensation for loss of earning in the case of loss of business

Where alternative entitlements are offered, the final decision on the suitable entitlement is to be made during consultations with the PAPs to whom the entitlements are due. All compensation will be at replacement value without deducting depreciation and salvage value. Cash compensation will be indexed for inflation.

Additional cash compensation is also to be offered to PAPs who are considered vulnerable.

Table 2: Entitlement Matrix

#	Type of Loses	Application	Definition of Entitled Person	Entitlement Policy
1	Structures (residential, religious or institutional) and hand pumps	Partial loss of structure and the remaining structure still viable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Cash compensation for affected part of the structure at replacement value; and Allowance to cover repair cost of the remaining structure.
			Tenant / leaseholder in the partially affected structure	Cash compensation to cover proportional reimbursement for un-expired lease period
		Entire loss of structures or where only partial impact, the remaining structure is rendered unviable for continued use	Legal owner of the affected structure with valid title or customary right to land at which it is sited	Cash compensation for entire structure at replacement value, Or: Structure of at least equivalent standard acceptable to PAP and right to the land at which it is sited Transition allowance equivalent to two-month rent (current rate) Transport allowance for moving to new location (current rate)
			Tenant / leaseholder in the partially affected structure	Transition allowance equivalent to two-month rent (current rate) Transport allowance for moving to new location (current rate)
2	Structures (commercial)	Partial loss of shop/cabin and the remaining structure still viable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Cash compensation for affected part of the structure at replacement value Allowance to cover repair cost of the remaining structure Compensation for loss of income as per #8
			Tenant / leaseholder in the partially affected structure	Cash compensation to cover proportional reimbursement for un- expired lease period Compensation for loss of income as per #8
		Entire loss of shop/cabin or where only partial impact, the remaining structure is rendered unviable for continued use	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Cash compensation for entire structure at replacement value, Or:

#	Type of Loses	Application	Definition of Entitled Person	Entitlement Policy
				Structure of at least equivalent standard acceptable to PAP
				Shifting allowance to cover relocation of business (current rate)
				Compensation for loss of income as per #8
			Tenant / leaseholder in the affected structure	Transition allowance equivalent to two months' rent (current rate)
				Compensation for loss of income as per #8
3	Land (residential, commercial, industrial, religious or institutional - excluding assets)	Partial loss of land with remaining land sufficient for continued use/habitation	PAPs with valid title or customary or usufruct rights	Cash compensation for affected portion of land at replacement value
			Tenant of lost land	Reimbursement for un-expired lease period
			PAPs without title (Squatter/ Informal Settlers)	N/A
		Loss of land without sufficient remaining land for continued use/habitation	PAPs with valid title or customary or usufruct rights	Cash compensation for affected portion of land at replacement value as if land under private ownership Or: Provision of equivalent area of land acceptable to the PAP
				Transport allowance for moving to new location
			Tenant of lost land	Reimbursement for un-expired lease period
				Transport allowance for moving to new location (current rate)
			PAPs without title (Squatter/ Informal Settlers)	N/A
4	Land (agricultural - excluding standing crops)	Partial and permanent loss of land with remaining holding economically viable (greater than 0.5 acres)	PAPs with valid title or customary or usufruct rights	Cash compensation for impacted land at replacement value as if land under private ownership
			Tenant of lost land	Reimbursement for un-expired lease period
			PAPs without title (Squatter/ Informal Settlers)	N/A
		Permanent loss of entire land holding, or partial loss where remaining holding is less than 0.5 acres	PAPs with valid title or customary or usufruct rights	Cash compensation for affected portion of land at replacement value as if land under private ownership or: Provision of equivalent area of land with equivalent productive potential acceptable to the PAP
			Tenant of lost land	Reimbursement for un-expired lease period

#	Type of Loses	Application	Definition of Entitled Person	Entitlement Policy
			Farmer of lost land (this may be the owner, tenant or encroacher)	Livelihood allowance equal to three months income from lost land (current rate)
5	Loss of access to common resources	Loss of access to common resource and amenities	Households	Replacement of common property resources/amenities Or: Access to equivalent amenities/services.
6	Loss of crops	Loss of planted crops that could not be harvested	Owner of affected crop (regardless of land ownership rights)	Cash compensation equivalent to market value of lost/damaged crops (value based on previous yield and value of harvested crop)
7	Loss of trees	Trees felled during implementation of works where land is privately owned	Owner of land on which tree is planted	Cash compensation equivalent to market value of tree on the basis of type, age and productive value
		Trees felled during implementation of works where land is government owned	Project Proponent	Replantation of cut trees included as part of civil works contract
8	Loss of trade/ occupation or business incomes	Loss of trade/occupation or business due to dislocation or loss of asset (except agricultural land or crops – see #4 or #6 respectively)	Owner or employee of affected business	Livelihood allowance equivalent to: <ul style="list-style-type: none"> • three months incomes/ wages in case of permanent closure • income/wages over closure period in case of temporary closure
9	Temporary Loses	Severely affected structures	PAPs made to shift temporarily from their present location	Entitlement will be in terms of rent allowance to cover the cost of alternate accommodation for the period of temporary displacement.
		Temporary acquisition of land or asset	PAPs with valid title or customary or usufruct rights to land or asset	No compensation if returned to the original user in acceptable condition Monthly rent as per market value Compensation for damage or repair to original condition
			Tenant	Proportional reimbursement of lease for period of acquisition
10	Loss of public infrastructure	Infrastructure	Relevant agencies	Compensation at replacement cost
11	Any loss above	Vulnerable allowance	PAP classed as vulnerable regardless of legal entitlement to land	Payment of additional vulnerable allowance

Source: Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Rehabilitation and Modernization of Guddu Barrage, Social Management Framework', December 2014, Government of Sindh

2.3.3 Procedure for Preparing Resettlement Plans

The RPF also defines the procedure for preparing resettlement plans, in particular with regards to:

- Calculation of compensation payments and allowances;
- Screening for involuntary resettlement;
- Baselines, socio-economic data and resettlement surveys;
- Implementation arrangements;
- Monitoring, evaluation and reporting;
- Grievance redress;
- Cost estimates;
- Public consultation and participation; and,
- Resettlement planning.

This report has been prepared on the basis of each of the above, where applicable to an abbreviated resettlement plan.

2.3.4 Submission and Approval of Resettlement Plans

In accordance with the RPF, this ARP shall be submitted to the Irrigation Department (ID) of the Government of Sindh, who in turn shall submit it to the WB. Both the ID and WB will review and, where applicable, approve this ARP. Following approval, the ARP will be translated into Urdu and Balochi by PMO, and all three versions will be disclosed on the SBIP website.

3 Description of the Sub-Project

3.1 General

This chapter provides an overview of Component A of SBIP: Rehabilitation of Guddu Barrage, which is the sub-project for which this ARP has been prepared.

Guddu Barrage is the first of three barrages on the Indus River within the Province of Sindh. The barrage was commissioned in 1962, and has now seen over fifty years of active service. The primary function of barrage is to service the irrigation of agricultural lands in the Ghotki, Sukkur, Kashmore, Shikarpur, Jacobabad and Larkana Districts of Sindh and the Nasirabad District of Balochistan, by feeding the Ghotki Feeder and Raineer Canals on the left side and Beghari Sindh Feeder and Desert Pat Feeder canals on the right side. Guddu Barrage is also an important transport link across the River Indus and provides cooling water for the thermal power station at Guddu. Two major gas lines from the Sui Fields cross the barrage to link with the Multan-Sukkur pipeline.

The sub-project involves the rehabilitation of Guddu Barrage itself, and the rehabilitation (raising and widening) of river training and flood embankments upstream of Guddu Barrage.

The aim of the sub-project is to improve the reliability and safety of Guddu Barrage and thereby safeguard supplies of water to over 2.6 million people, across 1.2 million hectares of irrigated land, and improve flood management for local communities.

3.2 Project Administration

3.2.1 Sindh Irrigation Department

The Irrigation Department owns, operates and maintains the barrage and its river training and flood embankments. The Chief Engineer (Guddu) and the Executive Engineer are overall responsible for the operation and maintenance of the barrage.

Project Management Office

The PMO has been formed within the ID, and is the implementing agency for SBIP, and therefore the project proponent for the sub-project.

The PMO will monitor and coordinate all project implementation activities. It shall be responsible for procuring, monitoring and supervising all project works as well as supervision of the overall project environmental and social activities. An Environmental and Social Unit (ESU) has been formed within the PMO, for supervision and monitoring of the environmental and social activities. The ESU is staffed by a social/resettlement specialist, environmental specialist and a communication specialist. The PMO, and in particular the ESU, shall be responsible for the implementation of this ARP.

3.2.2 Project Coordination and Management Unit

The Project Coordination and Management Unit (PCMU), formed the Planning and Development Department of the Government of Sindh to provide coordination, monitoring and evaluation of SBIP, coordinating the work of the Project Steering Committee.

3.2.3 Project Management Consultant/Procurement Agent

The Project Management Consultant/Procurement Agent will support the PCMU and PMO in bid evaluation and contract management.

3.2.4 Monitoring and Evaluation Consultants

Monitoring and Evaluation Consultants (M&EC) will provide the PMO with support to evaluate the project's impact, including the implementation and monitoring of the environmental and social activities. Their studies will evaluate the success in project implementation in terms of meeting the project's objectives, and assess its physical, hydrological, environmental, social, and economic impacts. The M&EC will provide continuous feedback to the Project Steering Committee on the project's performance, so that appropriate management actions can be undertaken in a timely manner.

3.2.5 Project Steering Committee

The Project Steering Committee shall be head by the Additional Chief Secretary Development and shall oversee, provide policy level guidance and inter-agency coordination for the project. The Project Steering Committee shall also comprise of the Secretary of Irrigation, Secretary of Finance, Secretary of Agriculture, Secretary of Environment, Secretary of Public Health Engineering, Secretary of Forestry and Wildlife, Chief Executive officer of a selected NGO, and representatives of the local/district administration. The Director of PMO will act as secretary for PSC meetings and be responsible for reporting.

3.2.6 Panel of Experts

An independent Panel of Experts has been established by PMO to provide technical oversight regarding the safety of the barrage.

3.2.7 Project Implementation Consultants

The Project Implementation Consultants (PIC) have been appointed by PMO to assist in procurement of contractors for the civil works contracts, and thereafter be responsible for the supervision of construction. For the civil works contracts, PIC shall serve as the Engineer.

3.2.8 Contractors

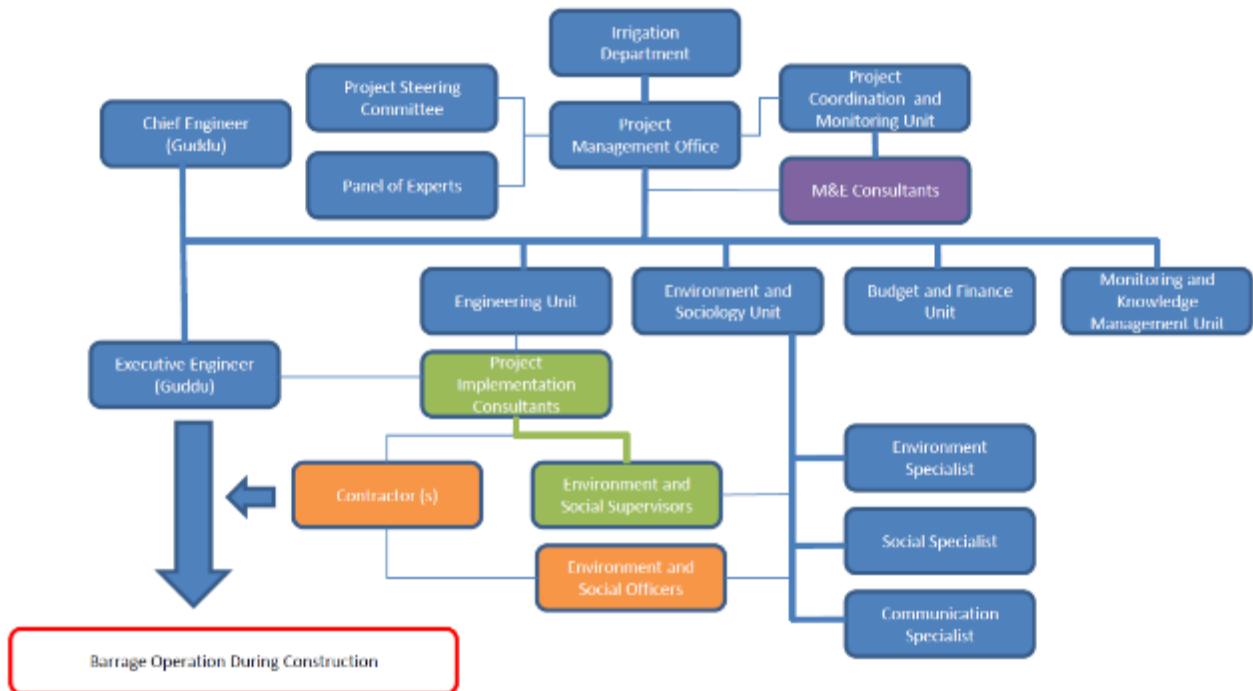
The works under this sub-project have been subdivided into two civil works contracts: SBIP/G2 and SBIP/G3. Both contracts have been awarded, and further details of each contract can be found in Section 3.4. The Contractor for each contract shall be responsible for the implementation of the civil works in accordance with the designs and specifications. Upon mobilisation, the contractor shall develop method statements to the approval of PIC, clearly detailing how they propose to implement the works.

The Contractors will prepare and implement their own social and environmental management plans, but will not be responsible for implementation of any parts of the ARP.

3.2.9 Organogram

The institutional arrangements for the implementation of the sub-project are summarised in the following figure.

Figure 1: Institutional Organogram for Implementation of the Sub-Project



3.3 Sub-Project Area

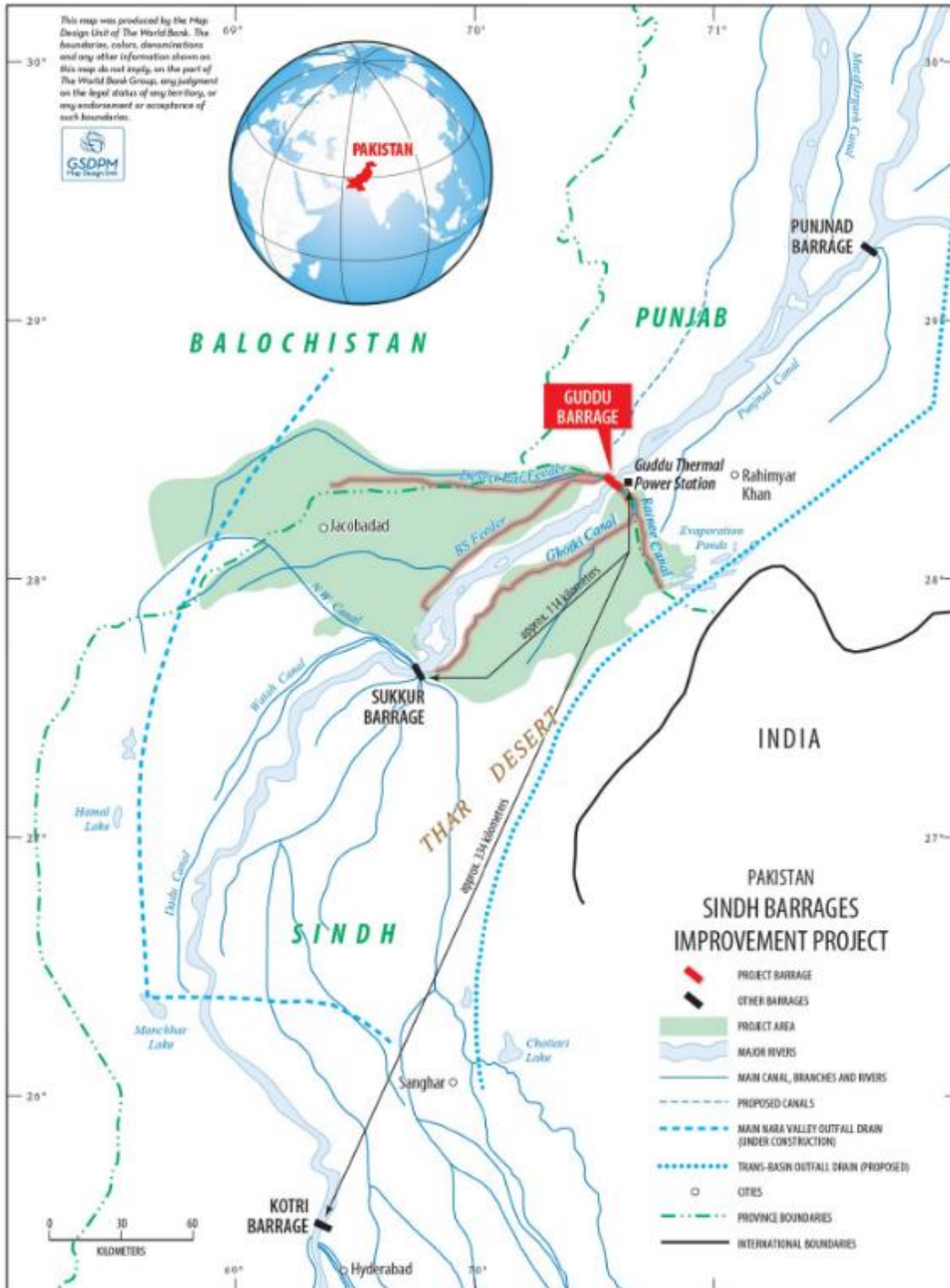
Guddu Barrage is located in the District of Kashmore in the north of Sindh Province, approximately 10 miles North East of Kashmore Town, as shown in Figure 2.

The sub-project area consists of the following distinct locations:

- Left marginal bund, upstream of Guddu Barrage – 25km
- Right marginal bund, upstream of Guddu Barrage – 8km
- Left and right spurs, upstream of Guddu Barrage – 14km
- Left and right guide banks at Guddu Barrage – 6km
- Guddu barrage and head regulators to offtaking canals immediately upstream of the barrage
- Irrigation Colony at Guddu Barrage.

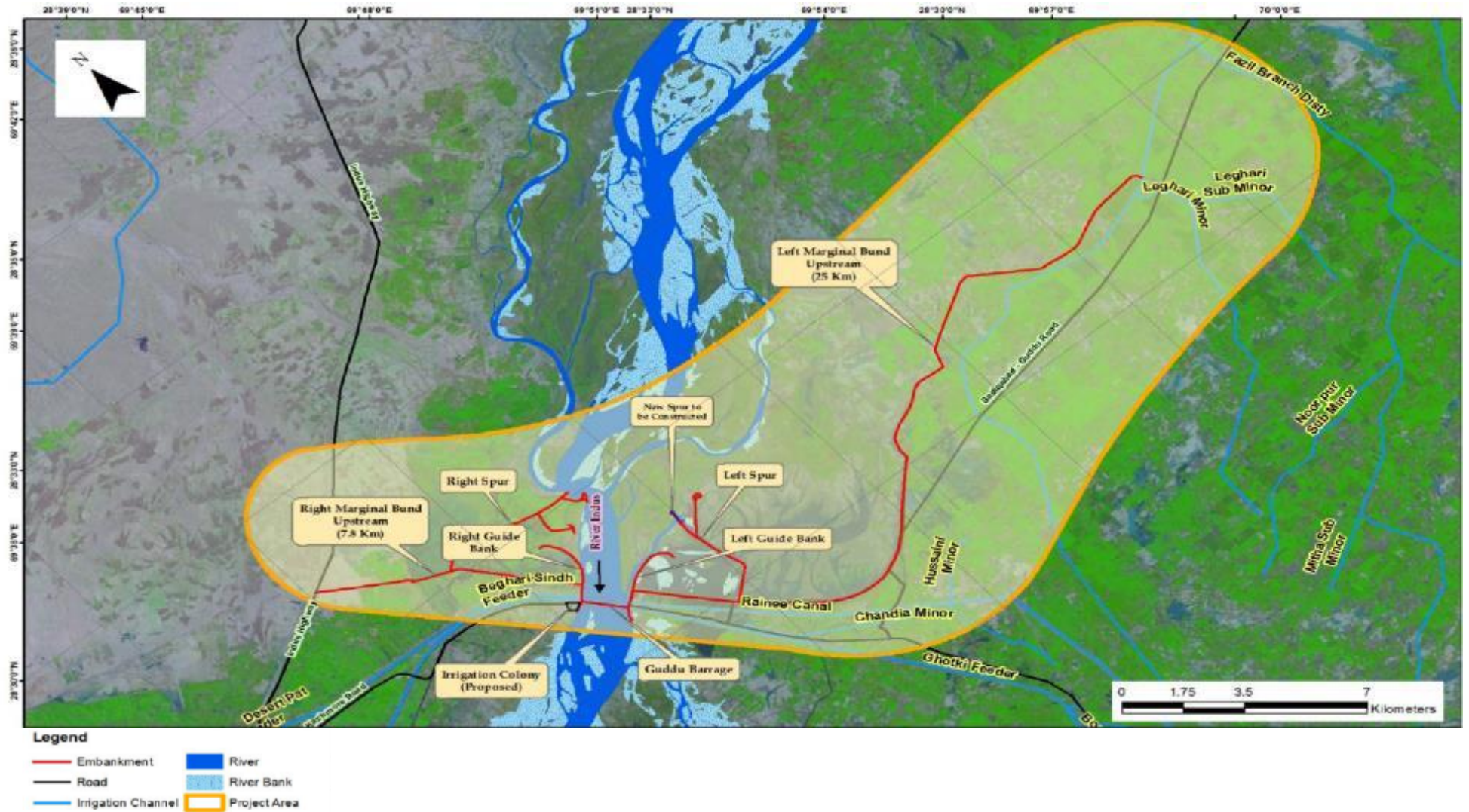
The sub-project area is shown in Figure 3.

Figure 2: Sub-Project Location



Source: World Bank

Figure 3: Sub-Project Area



3.4 Works

The works under the sub-project have been sub-divided into civil works contracts.

3.4.1.1 Contract SBIP/G2: Barrage Rehabilitation Works

The following works are included in contract SBIP/G2:

- Replacement of all gates on Guddu barrage, and the head regulators to Ghotki, Beghari Sindh and Desert Pat feeder canals;
- Replacement of mechanical and electrical equipment on the barrage and head regulators;
- Provision of equipment for the future operation and maintenance of the barrage;
- Minor repairs to the barrage and head work civil structures;
- Modification to the left-hand pocket divide wall; and,
- Construction of an irrigation colony and building works.

3.4.1.2 Contract SBIP/G3: River Training Works

The following works are included in contract SBIP/G3:

- Strengthening, raising and widening of the upstream embankments (marginal bunds) and training works (spurs and guide banks); and,
- Construction of new spur to improve the river approach conditions.

3.5 Resettlement Scoping

Prior to socio-economic fieldwork and consultations carried out as part of the planning for the ARP, a field scoping exercise was carried out to identify the construction activities resulting in direct economic or social impacts. This scoping exercise was carried out in the sub-project area in December 2016. The results of this assessment are summarised in Table 3 and determine that resettlement impacts are expected in the following sub-project locations:

- Existing left and right spur complexes upstream of Guddu Barrage;
- Planned left spur extension upstream of Guddu Barrage; and
- Existing left guide bund at Guddu Barrage.

The footprint of the works on these embankments is referred to as the Corridor of Impact (CoI) – all structures within the CoI will be removed to allow implementation of the works.

Table 3: Resettlement Scoping by Sub-Project Activity

Proposed Works	Location	Loss of Shelter	Loss of Assets/ Access to Assets	Loss of Income Source/ Means of Livelihood	Scoping Assessment
Contract SBIP/G2					
Replacement of gates and lifting mechanisms, minor structural repairs	Guddu Barrage and head regulators	-	-	-	Works are confined to the barrage and head regulator structures themselves. No other structures are present in these areas. These sites are government owned.
Removal of existing divide wall and construction of new divide wall	Indus river immediately upstream and downstream of the barrage	-	-	-	The work area falls entirely within the main channel of the Indus River
Demolition of existing buildings and construction of new irrigation colony	Irrigation colony site on right bank of Guddu Barrage	-	-	-	The site is entirely government owned and no privately owned structures are present at this site. Public access to this site is currently restricted.
Contract SBIP/G3					
Raising and widening of the marginal bund embankments	Left marginal bund embankments, upstream of Guddu Barrage	-	-	-	The embankments are government owned and no privately owned structures are situated within the footprint of the works. No agriculture is practiced within the footprint of works.
	Right marginal bund embankments, upstream of Guddu Barrage	-	-	-	The embankments are government owned and no privately owned structures are situated within the footprint of the works. No agriculture is practiced within the footprint of works.
Raising and widening of the embankments, placement of stone pitching on embankment	Left bank spur embankments, upstream of Guddu Barrage	✓	✓	✓	The embankments are government owned, however, privately owned and inhabited structures (residential and commercial) are illegally situated within the footprint of the works. No agriculture is practiced within the footprint of works.
	Right bank spur embankments, upstream of Guddu Barrage	✓	✓	✓	
	Left bank guide bund embankment at Guddu Barrage	✓	✓	✓	
	Right bank guide bund embankment at Guddu Barrage	-	-	-	The embankments are government owned and no privately owned structures are situated within the footprint of the works. No agriculture is practiced within the footprint of works.
Construction of left spur extension	Left bank spur complex, upstream of Guddu Barrage	✓	✓	-	The land is government owned, however, privately owned and inhabited structures (residential only) are situated within the footprint of the works, and areas of the impacted land are illegally farmed.

4 Socio-Economic Survey

4.1 Approach and Methodology

The following techniques and tools were adopted in order to facilitate comprehensive and detailed information regarding the socio-economic status of PAPs.

4.1.1 Sample Size

The socio-economic profile of PAPs is based on a census of all households and businesses falling within the footprint of works under this sub-project, carried out in June 2017.

The socio-economic profile of the sub-project area is based largely on secondary data, including the Environmental and Social Assessment prepared by PIC in 2014 for this project⁵. During the field surveys for this assessment, 28 villages and scattered hamlets, with a combined population of 18,495 (9,068 male, 9,427 female) were selected randomly for socio-economic analysis.

4.1.2 Collection of Primary Data

The preparation of the ARP required the collection of data and information from the sub-project area. To achieve this end, the following questionnaires (provided in full in Appendix A) were prepared:

Household Socio-Economic and Poverty Assessment Baseline Survey - This questionnaire was completed during consultative meetings with each household separately to document the PAPs, their assets, family profiles and economic status, as well as to develop an overall baseline profile of the people of the area in respect of their socio-economic behaviour, vulnerability and attitudes towards the developmental activity to be carried out in the area.

Household Assets Inventory Census Questionnaire - The questionnaire was also completed for each household during consultative meetings in order to record details of affected assets.

To test the validity and reliability of the developed questionnaire, interviewing guides were pre-tested in the study area and the questionnaire was reviewed to assess whether questions need to be clarified or changed

In addition to the questionnaires, consultation sessions were also held separately with each household. These consultations were used as part of the resettlement planning, as discussed in Chapter 5, but also to inform the socio-economic study.

Comprehensive village profiles were also prepared through village level consultations to supplement the socio-economic and demographic data collected at a household level. Village level consultations were carried out at the following villages in June 2017:

- Giddu Mirani, on the left guide bank
- Sher Khan Mazari, on the right spur

Separate consultations covering various aspects relating to women in the sub-project area were also carried out.

⁵ Mott MacDonald 'Guddu Barrage Rehabilitation Project, Design Report. Annex E: Environmental and Social Impact Assessment (ESIA)' November 2014

PIC were active in the field to collect detailed socio-economic and census data for this ARP in June 2017. The PIC team consisted of sociologists as well as a surveyor who identified the footprint of the planned works, and therefore determined which land and structures would be directly impacted by the sub-project. PIC were accompanied by representatives from PMO and Sindh ID. A list of the staff accompanying PIC is provided in Appendix B.

4.1.3 Collection of Secondary Data

Secondary data relating to the socio-economic characteristics of the sub-project was collected from the concerned local government offices, police, fisheries, building, and road and agriculture departments.

Official Websites of Rajan pur, Rahim yar khan, Kashmore and Ghotki districts were also searched. The population census reports for the concerned districts were also consulted.

Secondary data was also collected from the Environmental and Social Assessment (2014)⁶ prepared for this project by PIC during the feasibility and detailed design stages of this project. During the preparation of this Environmental and Social Assessment, a number of villages were consulted regarding the planned works from September to December 2013. While the scope of these consultations did not cover resettlement impacts, the findings are useful in detailing the socio-economic baseline of the sub-project area.

4.2 Socio-Economic Profile of the Sub-Project Area

4.2.1 Administration of the Sub-Project Area

Guddu Barrage is located at longitude 69 45'E and latitude 28 25'N across the River Indus some 16 km north east of Kashmore Town in Kashmore District, Province of Sindh. It is the first of three barrages on the Indus River within the Province of Sindh, the others being Sukkur and Kotri Barrages. Guddu Barrage is located in District Kashmore at the Sindh and Punjab border, the upstream area of the Barrage divides into two Districts of the Punjab: District Rahim-yar-khan on the left side of the Barrage and District Rajanpur on the right. The downstream project area of Guddu Barrage also divides into two Districts of the Sindh: District Ghotki on the left side of the Barrage, and District Kashmore on the right.

4.2.1.1 Rajanpur District

District Rajanpur takes its name from the district headquarters town of Rajanpur which was founded by Makhdoom Sheikh Rajan Shah in 1731-33 A.D.

Rajanpur city is situated on the right bank of River Indus and District boundaries are extended on both sides of River Indus. Rajanpur District is bounded on the north by DG Khan, on the east by Muzafar Garh and Rahim Yar Khan Districts lying across the River Indus. On the south lies District Jacobabad of Sindh province while on the west is the District Dera Bughti and Barkhan of Balochistan province. The population density of the district is 90 persons per km². Rajanpur District is subdivided into three administrative divisions called tehsils: the Jampur tehsil, Rajanpur tehsil and Rojhan tehsil. There are 44 union councils in the district.

The flood affects Rajanpur District almost every year. It is caused by two main factors: hill torrents and riverine flooding. July 2013 brought torrential rains and gave rise to heavy flash floods in the affected areas of the Suleman Mountain range.

⁶ Mott MacDonald 'Guddu Barrage Rehabilitation Project, Design Report. Annex E: Environmental and Social Impact Assessment (ESIA)' November 2014

Rajanpur is the headquarters of Rajanpur District and Tehsil. It is located in the extreme southwest part of Punjab, Pakistan (29:06N, 70:19E) with a geographical span of 12,319 km². It is one of the only two districts of Punjab located west of the Indus River. The land is sandwiched between the River Indus on one side, and the Sulaiman Mountain range on the other. According to the National Census Report 1998, it had a population of 1,103,618 of which 14.27% were urban. Under the local administrative break up, the whole district is divided into three Tehsils and 43 Union Councils.

Siraiki is the main language spoken in the Rajanpur District. Balochi language is the second most spoken language. Urdu is also becoming a third language spoken in the literate community.

Rajanpur district is famous for growing cotton and sugarcane, although they are cultivating wheat and rice as well. The cotton picking season starts in the middle of September. The price of one bag of DAP fertilizer is Rs 3,000 but the price reaches to Rs 5,000 if taken on credit. The majority of the farmers save their own wheat crop seed for the next year's crop.

4.2.1.2 Rahim Yar Khan District

Rahim Yar Khan district has a total area of 11,880km². According to the 1998 census, the city population was 233,537 with an annual growth rate of 4.04%. As of January 2007, it was around 330,000. The district comprises four Tehsils namely Rahim Yar Khan, Sadiqabad, Liaquatpur and Khanpur. There are 122 union councils, three municipal committees and five town committees in the district.

Rahim Yar Khan is bounded on the north by Muzaffargarh district, on the east by Bahawalpur district, on the south by Jaisalmer (India) and Ghotki district of Sindh province and on the west by Rajanpur district. This district is divided into three main physical features i.e. (a) Riverine area, (b) canal irrigated area, and (c) desert area which is called Cholistan. It lies in the south of the irrigated tract up to the Indo-Pak border.

Siraiki is the predominant language being spoken in the district, representing 62.6 percent of the population, followed by Punjabi and Urdu spoken by 27.3 and 2.9 percent respectively and Sindhi by 2.0 percent while others speak Pushto, Balochi, Bravi and Dari.

The main crops of the district are Cotton-wheat, Mung-wheat, Sugarcane-wheat, Kharif fodder/maize-wheat. Most of the orchards are of mangoes and citrus.

4.2.1.3 Kashmore District

Kashmore District falls in the administrative control of Sindh province of Pakistan. Kashmore has a unique identity because of its location and its roads connecting 3 provinces. Kashmore has always been a hub of trade for its agricultural produce. The main tribes of Kashmore are the Mazari, Bajikani, Banglani, Dahani, Nindwani, Bahalkani, Bijarani, Khoso, Kosh, Solangi, Bhutto and the Domki.

The population of Kashmore District is 662,462. Kashmore is bordered by Ghotki and Shikarpur districts in Sindh. The district is also bordered by Rajanpur and Rahim Yar Khan in Punjab, and Sui and Dera Bugti in Balochistan. Kashmore is divided into three Talukas: Tangwani, Kandhkot and Kashmore. Bakhshapur is a large town of Kashmore district. Kashmore is at a road junction to the Balochistan town of Sui. It is also connected by a road over Guddu Barrage to highway N5 at a town called Umar kot (near Ubauro). The same road, after crossing Guddu Barrage, branches off to Punjab's city of Sadiqabad.

Guddu Barrage is located in Kashmore. Desert Pat Feeder and Beghari Sindh Feeder, both offaking on the right bank of Guddu Barrage, encircle Kashmore city from the north and south.

Kashmore is said to be the largest rice producing district in Asia.

4.2.1.4 Ghotki District

Ghotki district takes its name from the Ghotki Town which is the headquarters of the district. It is located between 270-18' to 280-27' north latitudes and 690-10' to 700-10' east longitude. The district is bounded on the north by Rahim Yar Khan and Jacobabad districts, on the south by Sukkur district, on the east by Jasalmir State of India and on the west again by Jacobabad district. The total area of the district is 6,083 km². The total population of district is 970,549, comprising of 511,363 males and 459,186 females. The average annual growth rate of district is 3.26 percent per annum and population density of district is 159.6 persons per square kilometre. The Ghotki district is divided into five Talukas, namely Daharki , Ghotki, Mirpur Mathelo, Ubauro, and Khanpur Mahar. Ghotki district has two gas fields namely Mari gas field and Qadirpur gas field in the Daharki and Ghotki talukas respectively.

Engro Chemical Fertilizers, Fauji Fertilizer and Fatima Fertilizer Company are situated at Machi Goth, Taluka Sadiqabad, District Rahim Yar Khan (Punjab). Engro Energy Plant is situated in Ghotki. Liberty Power Plant and Fauji Foundation Power Plant is situated in Mirpur Mathelo, WAPDA (Guddu Thermal) and Sui Southern Gas Company are the main consumers of natural gas produced by these gas fields. Important means of transport and communication in the district are roads and railways. The main Pakistan railway line between Karachi and Peshawar passes through this district and the District is also connected with the National Highway running from Karachi to Peshawar.

The area is fertile and is irrigated by canals; it primarily grows cotton, wheat and sugar cane. The other crops in the area are rice, maize, barley, jawar, bajra, tobacco, gram and barley. The main occupation of the people is agriculture.

4.2.2 Agriculture

Agriculture is the most significant source of income for those in the sub-project area, including those to be directly impacted by the works. The land in the sub-project area is fertile and the crops grown during the Kharif season (April to November) and during the Rabi season (April to October) are summarised in Table 4. Kharif crops are often flooded by the high floods in the River Indus and Rabi crops are usually sown on the residual flood moisture. Sugarcane is a cash crop and is the most commonly grown crop in the sub-project area due to the availability of the surrounding sugar mills in the area. Other commonly grown crops are wheat, rice and fodder for livestock.

Table 4: Cropping Pattern in the Sub-Project Area

Rabi Crops	Kharif Crops
<ul style="list-style-type: none"> ● Wheat ● Gram ● Oilseed (Rape Seed and Mustered) ● Barley ● Pluses ● Tobacco ● Rabi Fodder (Barseem/Losern) ● Vegetables (Onion, Tomato, Potato, Cabbage and Peas) ● Orchard 	<ul style="list-style-type: none"> ● Cotton ● Sugarcane ● Rice ● Bajra ● Maize ● Pluses ● Kharif Fodder ● Vegetables ● Orchard (Date, Banana, Falsa and Guava)

Source: Environmental and Social Assessment (2014), PIC

Figure 4: Cropping in the Sub-Project Area



Source: Survey of PAPs, PIC, June. 2017

Figure 5: Cropping in the Sub-Project Area



Source: Survey of PAPs, PIC, June. 2017

4.2.3 Animal Husbandry

Households in the sub-project area own quality breeds of buffaloes, cows and goats. Livestock is the main source of milk, meat and ghee for the local population, but also provides a secondary source of income for many families. Households commonly rear cows and goats to sell annually at Sukkur market. Domestic poultry is also a source of income.

Figure 6: Livestock in Sub-Project Area



Source: Survey of PAPs, PIC, June. 2017

Figure 7: Livestock in Sub-Project Area



Source: Survey of PAPs, PIC, June. 2017

4.2.4 Castes and Languages

Social organization in all villages within the sub-project area is strongly based on Biradari (tribal) system, where each caste has a caste leader. The main castes in the sub-project area are Mazari, Mirani and Malik. These castes are not related to religion and are not immutable.

Balochi language is commonly spoken as mother tongue of majority of the communities in the sub-project area. However, Sindhi and Sareiki languages are also spoken and understood as local languages.

4.2.5 Education and Literacy Ratio

Of the 18,495 (9,068 male, 9,427 female) people covered by field surveys for the Environmental and Social Assessment (2014) for this project, 823 (681 male and 142 female), or 4.45%, were found to be literate. Out of total literate, 84% have primary level education, 12% have middle level, 3% are educated to matric level, and 1% have intermediate and graduate education levels. Education and literacy levels of the surveyed population is provided in Table 5.

Table 5: Education Levels in the Sub-Project Area

Education Level	Male (number)	Female (number)	Total (number)	Total (%)
Illiterate	7,752	8,625	16,377	89
Children	151	170	321	7
Educated	681	142	823	4
Primary	556	137	693	84
Middle	91	5	96	12
Matric	24	-	24	3
Above Matriculate	10	-	10	1
Grand Total	9,068	9,427	18,495	100

Source: Environmental and Social Assessment (2014), PIC

4.2.6 Social Amenities in Sub-Project Area

Surveys completed during the feasibility and detailed design stage revealed that the electricity, road, primary level education and mobile phone facilities are available in the sub-project area. However, access to these facilities, and the quality of the services provided varies. Sewerage/drainage, water supply, gas, basic health unit and land line telephone facilities were not reported in the sub-project area. The level of access to, and performance of, social amenities in the sub-project area is summarised in the following table.

Table 6: Access to Social Amenities in the Sub-Project Area

Facility	Available (%)	Not Available (%)	Satisfactory (%)	Unsatisfactory (%)
Electricity	10	90	35	65
Gas	0	100	-	-
Water Supply/Tank	0	100	-	-
Telephone (Land Line)	0	100	-	-
Sewerage/ Drainage	0	100	-	-
Road	15	85	20	80
BHU	0	100	-	-
School (Primary only)	15	75	20	80
Mobile	100	-	100	-

Source: Environmental and Social Assessment (2014), PIC

During socio-economic surveys completed for the Environmental and Social Impact Assessment, male respondents expressed a priority need for adequate medical dispensary facilities and addition education facilities. Respondents noted that improved access to electricity and improved road networks were required.

4.2.7 Status of Women in the Sub-Project Area

4.2.7.1 Socio-Economic Activities of Women in the Sub-Project Area

The female population in Pakistan according to the 1998, Census, is around 48%. In view of this situation, the gender issues assume special focus and need to be properly addressed and evaluated. A gender study was carried out in the sub-project area, as part of the Environmental and Social Assessment⁷ for the project, to assess the difference in social roles between females and males. Details of the constraints faced by the females in gaining access to various activities and participation were gathered by interviews of women in the sub-project area, including working class women, house wives, students and elderly women.

The results of these surveys have revealed that participation of women in various socio-economic activities in the project corridor is generally high, especially in household activities and childcare. The majority are also involved in agriculture, which is the major source of income within the sub-project area, as well as maintaining social obligations (such as attending death and marriage ceremonies). The results of the survey are provided in Table 7. Female participation in household decision making was very low, particularly where decisions related to activities which require interaction with others - such as decisions about education of children, farm business, sale and purchase of livestock or property. Elderly women, interviewed as part of the gender study, informed the interviewers that male family members discuss marriage settlements of children and purchase and sale of animals with them more than they do with the younger women.

Table 7: Women’s Role in Socio-Economic Activities

Activity	Participation of Women (%)
Households Activities	100
Child Care	100
Farm/Crop	60
Livestock Rearing	50
Social Obligations	90
Decision Making	05

Source: Environmental and Social Assessment (2014), PIC

Figure 8: Women Engaged in Agriculture



Figure 9: Women Engaged in Livestock Rearing



⁷ Mott MacDonald ‘Guddu Barrage Rehabilitation Project, Design Report. Annex E: Environmental and Social Impact Assessment (ESIA)’ November 2014

During interviews as part of the gender study, 53%, 26% and 21% of the women interviewed ranked the provision of basic health units, electricity and primary schools as the priority need in the sub-project area respectively.

4.2.8 Non-Government Organisations in the Sub-Project Area

The following Non-Governmental Organisations (NGOs) were active within the sub-project area following severe flooding in 2010 and 2011. However, they are not currently active and are seeking additional funds:

- Mojaz Foundation: operates from Kashmore town. Mr. Ramesh Arora is the Chief Executive and Mr. Abdul Samad is the Project coordinator of the Mojaz Foundation. The NGO supported flood affected families of Rajanpur District in Punjab province. They provided shelter to the flood affected population by providing tents and wooden dwellings.
- Soofi Sachal Sarmast Welfare Association: operates from Kandh kot city for the welfare of the flood affected people.
- Kainat Development Association was also working for flood affected people.

4.3 Socio-Economic Profile of Project Affected Persons

The socio-economic profile includes the description of the households and populations which are resident on the embankments at Guddu Barrage which fall within the Col, and those who depend on income generated through commercial structures located there. The socio-economic characteristics of the PAPs are based on the socio-economic surveys and focus group meetings conducted in June 2017.

The Col is detailed further in Section 3.5

4.3.1 Demographic of PAPs

The total number of PAPs is 133, and can be sub-divided as shown in Table 8.

Table 8: Demographics of Project Affected Persons Living within Footprint of Works

Age	Male	% Age	Female	% Age	Total	Percentage
< 5	09	6.88	09	6.71	18	13.53
6-9	07	5.40	07	5.10	14	10.53
10-18	12	8.86	11	8.12	23	17.29
19-65	40	29.9	36	27.48	76	57.14
Above 65	01	0.78	01	0.79	02	1.51
Total	69	51.8	64	48.2	133	100

Source: Survey of PAPs, PIC, June. 2017

Of the 133 PAPs, 128 are living in 15 households situated in the Col for this sub-project. One household of five PAPs owns a shop within the Col, but resides elsewhere. Full details of all those owning residential or commercial structures in the Col can be found in Appendix C.

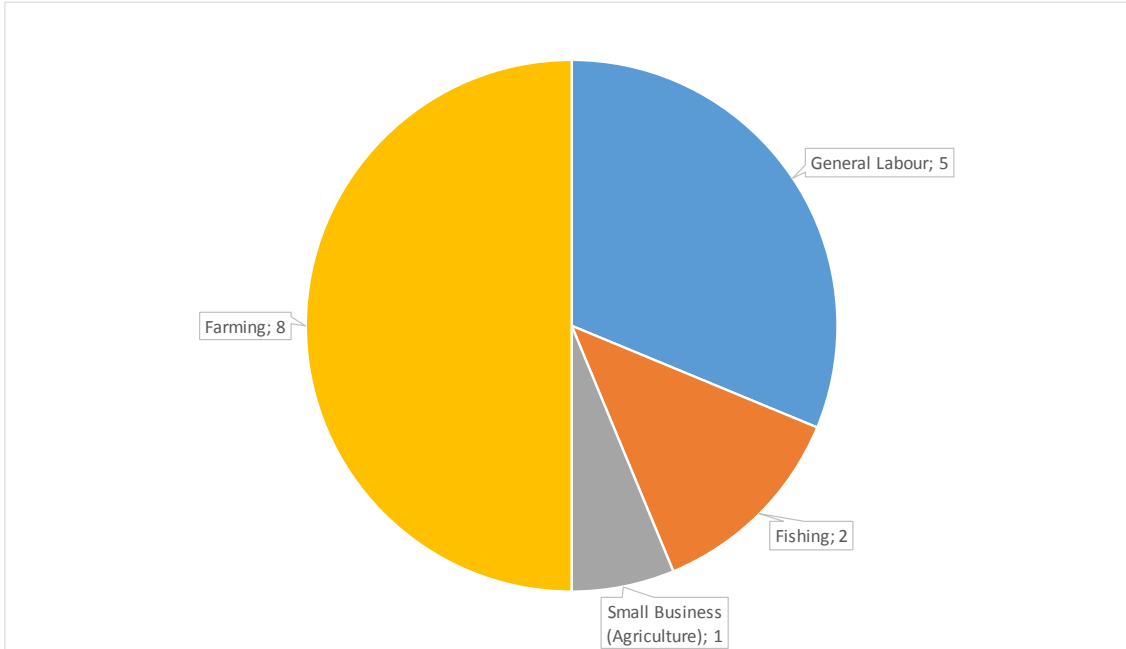
4.3.2 Employment and Income

4.3.2.1 Income Sources of PAPs

The primary income source by household, and by number of PAPs dependant on each income source, is provided in Figure 10 and Figure 11 respectively. These figures show that the most

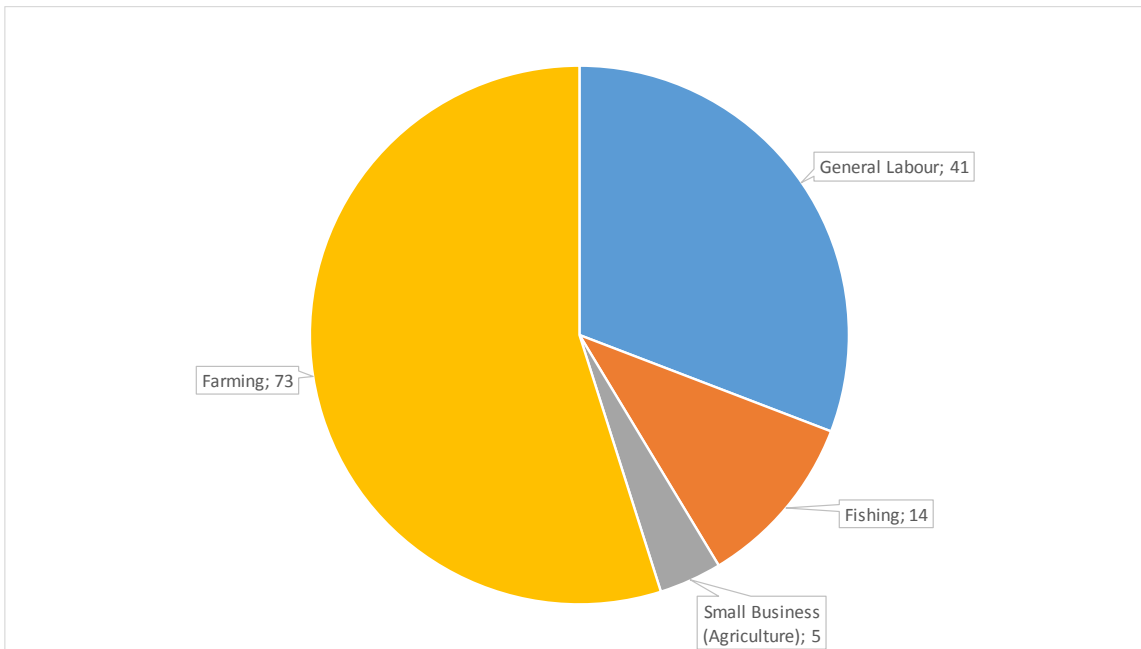
common source of income to PAPs is from farming, followed by general labour, many of whom are also engaged in agricultural activities.

Figure 10: Primary Income Source by Household



Source: Survey of PAPs, PIC, June 2017

Figure 11: Primary Income Source by PAPs (including dependants)



Source: Survey of PAPs, PIC, June 2017

Agriculture

With the exception of two acres of farmland within the footprint of the left spur extension, no farm land was found within the Col at the time of the survey. These two acres are illegally farmed on government owned land. All other farming PAPs are farming land outside the Col. Agricultural practices are summarised in Section 4.2.2, and tenure of this farmland is discussed in Section 4.3.4.

General Labourers

General labourers are engaged in a number of roles. Most commonly, labourers are employed as agricultural labourers (harvesting, picking, threshing, animal rearing, drivers and guards), but also work in shops or construction outside the Col. General laborers commonly gain employment during the wheat harvesting season, for crop picking, loading and threshing. For the majority of labourers, employment is intermittent and usually on a temporary basis. Note that, although the Guddu Thermal Power Plant also employs skilled and unskilled labour from within the sub-project area, no PAPs are employed at the plant.

Small Business

The household headed by Ahmed Bux Mazari earns income from small business activities. The household owns a tractor, which is stored in their village (Sher Khan Mazari) outside of the Col. The household's primary income is from renting the tractor (and driver) to farmers in the sub-project area for agricultural activities (such as ploughing and loading/transporting goods). This source of income will not be impacted by the sub-project, and accounts for 55% of the total household income.

The same household has constructed two adjoining structures on the right spur within the Col. The structures consist of a shop and a store as shown in Figure 12. During the harvest of wheat, oilseed and rice, farmers from within the sub-project area sell their produce to the household, one of the structures is used to store this produce. During the harvest seasons, the second structure is operated as a shop selling basic household commodities including pulses, sugar, tea, oil, ghee, flour, as well as savoury and sweet snacks. Towards the end of each harvest season, the shop is closed and the second structure is also used to store harvest produce. The shop is only operational during the harvest seasons and produce is stored on the embankment all year round. The household use their tractor to transport the produce to Kashmore for onward sale to wholesalers, at a profit, at a later date. Income earned from the structures on the right spur is secondary to the income earned from renting the tractor, and accounts for 45% of the total household income.

Figure 12: Shop and Store on Right Spur



Source: Survey of PAPs, PIC, June 2017

Fishing

Two households earn their primary income from fishing. They fish from the waterbodies within the riverine areas surrounding Guddu Barrage all year round. Both own boats. They sell fish to passing traffic at Guddu Barrage, as well as at the nearby cities of Sadiqabad, Rahim yar khan, Daharki and Mirpur Mathelo. Of these two households, the household headed by Nasir Ahmed also earns a secondary income from general labour.

4.3.2.2 Income Levels and Poverty Status

The overall income and poverty status of PAPs owning assets in the Col is provided in the following table.

Table 9: Income of Affected Households

Primary profession	No. of households	Number of PAPs	Total income (PKR/Month)	Average Household Income (PKR/Month)	Average Income Per Capita (PKR/Month)
Farming	8	73	137,500	17,188	1,884
General Labour	5	41	33,667	6,733	821
Fishing	2	14	15,000	7,500	1,071
Small Business	1	5	8,333	8,333	1,667
Total	16	133	194,500	12,156	1,462

Source: Survey of PAPs, PIC, June 2017

The income levels have been considered in relation to the poverty line of Pakistan, which has been set in this ARP to be PKR 2,631.26 per capita per month for 2017. This is calculated from the 2010-2011 poverty line of PKR 1,745/capita/month as quoted in the Pakistan Economic Survey of 2013-2014². This value has been adjusted based on the annual consumer price inflation quoted by the WB⁸:

⁸ <http://databank.worldbank.org/data/home.aspx>

- 11.9% inflation in 2011: PKR 1,952.66
- 9.7% inflation in 2012: PKR 2,142.06
- 7.7% inflation in 2013: PKR 2,307.00
- 7.2% inflation in 2014: PKR 2,473.10
- 2.5% inflation in 2015: PKR 2,534.93
- 3.8% inflation in 2016: PKR 2,631.26

The following table indicates that among the affected households, all those households engaged in small businesses, farming (Owner and tenants) and General Labour are living below the poverty line, while the majority of general labourers and farm owners also live below the poverty line. Overall, 88% (all but two) of the affected households are living below the poverty line.

Table 10: Poverty Status of PAPs

Profession of Affected Household	Number of Households Below Poverty Line	Number of PAPs Below Poverty Line	% of Households Below Poverty Line by Profession
Farming	6	51	75%
General Labour	5	41	100%
Fishing	2	14	100%
Small Business	1	5	100%
Total	14	111	88%

Source: Survey of PAPs, PIC, June 2017

4.3.3 Expenditure of Affected Household

The field team collected details of monthly and yearly household expenditures from the affected households. Those consulted estimated their average monthly expenditure, but noted that this varies from month to month. Many general labourers in the Col informed the team that they must supplement their daily wages with loans from landlords and shopkeepers in town in order to meet their monthly expenditure. They depend on earnings from harvest employment to repay their loans. Table 11 provides expenditure details for the affected households.

Table 11: Expenditure of Affected Households

Profession	Number of Households	Number of PAPs	Expenditure (PKR/ month)	Average Expenditure Per Household (PKR/month)	Average Expenditure Per Capita (PKR/Month)
Farming	8	73	64,500	8,063	884
General Labour	5	41	42,700	8,540	1,041
Fishing	2	14	17,500	8,750	1,250
Small Business	1	5	7,000	7,000	1,400
Total	16	133	131,700	8,231	990

Source: Survey of PAPs, PIC, June 2017

4.3.4 Landholding Status

All structures constructed within the Col have been constructed illegally on government owned land, and the PAPs have no legal rights to the land on which these structures are located. Similarly, the impacted land in the footprint of the spur extension is government owned and farmed illegally.

However, seven affected household which are residing on the spurs and guide bank own and farm agricultural land beyond the Col. They have constructed temporary houses and sheds on the river embankments to protect them from flood. They also own houses in their native villages. Another household farms government owned land in the riverine area beyond the Col.

4.3.5 Settlement Background of Affected Households

A large number of households living within the riverine area around Guddu Barrage were displaced by severe flooding in 2010, and constructed temporary shelters on the embankments upstream and downstream of the barrage. Once the floods receded, these households returned to be close to their original farmland, resulting in a number of abandoned structures identified on the embankments.

In the following years, several households living in the riverine area have occasionally moved to the embankments on a temporary basis when the flow in the River Indus is high, while others preferred to temporarily protect their property (by, for example, constructing earthen ring bunds around their homes). Those moving to the embankments temporarily will bring many of their belongings and livestock with them in order to protect them from the flood waters. Following the floods, most of households return to their villages. However, over the last four years, a small number of households have begun to construct permanent houses on the embankments, preferring to remain on the embankments, rather than moving on a temporal basis. Typically, the originating villages and place of work of these households is close to their current location on the embankments, so they are not disadvantaged by remaining on the embankments. Conversely, many of those who remain on the embankments only temporarily live and work further away from the embankments, so prefer to move home as soon as possible once flood flows in the River Indus recedes. Some, but not all, of those who now remain on the embankments are situated within the Col for the sub-project and will be impacted by these works. The settlement background of the affected households is summarised in Table 12 and in the following sections.

Table 12: Settlement Background of Affected Households

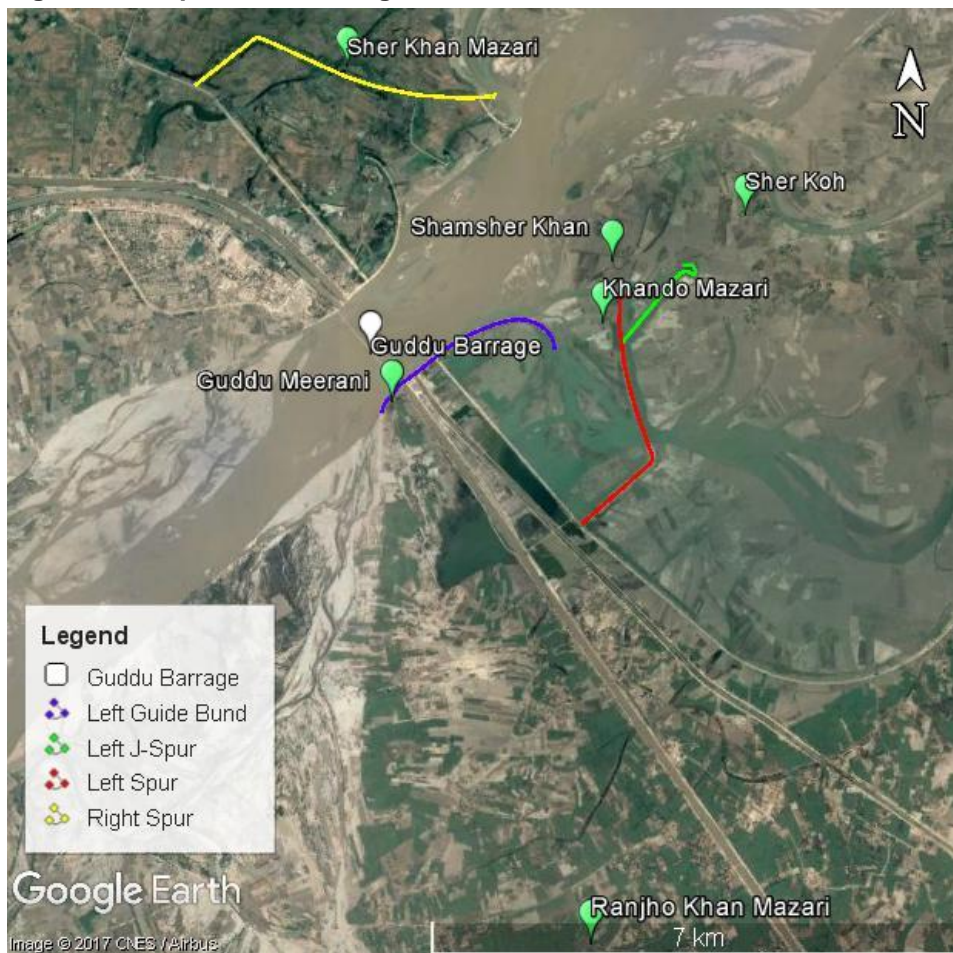
Ref	Head of Household	Occupation	Native Village	Distance from Original Village	Years on Embankment	Reason for Moving
LEFT SPUR						
LS1	Sijawal Mazari	Farming	Khando Mazari	<500m	4	Flood in Indus River
LS2	Abid Hussain	Farming	Khando Mazari	<500m	3	Flood in Indus River
LS3	Sanwan	Farming	Khando Mazari	<500m	4	Flood in Indus River
LS4	Mohammad Afzal	Farming	Khando Mazari	<500m	4	Flood in Indus River
LS5	M.Ayoub	Farming	Khando Mazari	<500m	4	Flood in Indus River
LEFT J-SPUR						
LJS1	Ghulam Qadir	General Labour	Sher koh	2km	4	Flood in Indus River
LJS2	Morzada	General Labour	Sher koh	2km	3	Flood in Indus River
LJS3	Mustafa	General Labour	Sher koh	2km	4	Flood in Indus River
LJS4	Wazir Hussain	General Labour	Sher koh	2km	4	Flood in Indus River

Ref	Head of Household	Occupation	Native Village	Distance from Original Village	Years on Embankment	Reason for Moving
LJS5	Ghani Khan	General Labour	Sher koh	2km	3	Flood in Indus River
LEFT SPUR EXTENSION						
LSE1	Long Malik	Farming	Shamsher Khan	300m	4	Flood in Indus River
RIGHT SPUR						
RS1	Ahmed Bux Mazari	Small Business	Sher Khan Mazari	50m	3	To establish business
LEFT GUIDE BANK						
LGB1	Nasir Ahmed	Fishing	Guddu Meerani	50m	20	Find work in Guddu town
LGB2	Ali Sher Meerani	Fishing	Guddu Meerani	2.5km	3	For Fishing
LGB3	Farman Ali	Farming	Ranjho Kahn Mazari	8km	8	For Farming
LGB4	Pir Bux	Farming	Ranjho Khan Mazari	8km	8	For Farming

Source: Survey of PAPs, PIC, June 2017

The native villages are shown in the following figure.

Figure 13: Map of Native Villages



Source: Created in Google Earth Pro

Left Spur

The five households situated on the left spur all moved from Khando Mazari village. Each household is currently farming land situated close to the left spur, but which is beyond the Col for this sub-project. Khando Mazari is situated just 200m from the left spur, and extended family members of the PAPs on the left spur still reside in the village. PAPs on the left spur chose to remain on the embankments, as their village and farmland is close by and they can maintain close links with their extended family in Khando Mazari village.

Left J-Spur

The five households situated on the left J-spur all moved from Sher Koh village. Sher Koh is approximately 2km from the left J-spur. The primary income source of each household is as general labourers, and they generally find work on farmland during the rabi season. This farmland is situated approximately equidistant between Sher Koh village and the left J-Spur. During the kharif season, this farm land is flooded and they temporarily shift their families outside of the sub-project area, to nearby districts (generally residing illegally in the government owned right of way of canals) to find work as labourers in cotton picking, sugarcane and fruit harvesting.

Left Spur Extension

The household living on the footprint of the left spur extension has constructed a house on the slope of the existing spur. They farm land adjacent to their current location.

Right Spur

The household (ref RS1) owning the commercial structures on the right spur live in a village close to the spurs. They constructed two buildings on the embankment to store wheat, oilseed and rice produce which they purchase from local farmers and subsequently sell for profit at Kashmore city. They chose to construct the stores on the embankment of the right spur, as this location is less prone to flooding than the surrounding area, therefore their purchased produce is safeguarded against flooding in the sub-project area.

Left Guide Bank

Nasir Ahmed's family (Ref LGB1) moved to Guddu Meerani village in 1960 before he was born. The village is situated immediately adjacent to the left guide bank. Once Nasir Ahmed was married with children, he moved from his family house and built a new house on the left guide bund as the village grew and began to encroach over the government owned embankments.

Another household (Ref LGB2) also belongs to Guddu Meerani village, and the primary income of the household is fishing. The head of the household fishes from the upstream end of the left guide bund, approximately 2.5km from the village. He has constructed a house on embankment as this location.

Two further households (ref LGB3 and LGB4) both farm land near the upstream end of the left guide bund. They moved to the upstream end of the guide bunds from Renjho Khan Mazari to be closer to their farmland.

4.3.6 Vulnerable PAPs

The poverty status assessment (Section 4.3.2.2) identifies that 88% of the PAPs are living below the poverty line. Households who are living below the poverty line will be most vulnerable to changes in their circumstances which impact upon their income or expenditure. All households living below the poverty line are considered as vulnerable in this ARP. In addition, households consisting of ill and/or elderly dependants may experience sudden and unexpected increases in their expenditure and are also considered vulnerable in this ARP. The following table identifies the 14 households which are considered vulnerable.

Table 13: Vulnerable Affected Households

Ref	Head of Household	Occupation	Below Poverty Line?	Elderly PAPs (>60yrs)	PAPs with Poor Physical Health
LS1	Sijawal Mazari	Farming	Yes	2 nr	1 nr.
LS2	Abid Hussain	Farming	Yes	-	-
LS3	Sanwan	Farming	Yes	-	-
LJS1	Ghulam Qadir	General Labour	Yes	-	-
LJS2	Morzada	General Labour	Yes	-	-
LJS3	Mustafa	General Labour	Yes	-	-
LJS4	Wazir Hussain	General Labour	Yes	-	-
LJS5	Ghani Khan	General Labour	Yes	-	-
LSE1	Long Malik	Farming	Yes	-	-
RS1	Ahmed Bux Mazari	Small Business	Yes	-	-
LGB1	Nasir Ahmed	Fishing	Yes	-	-
LGB2	Ali Sher Meerani	Fishing	Yes	-	-
LGB3	Farman Ali	Farming	Yes	-	-
LGB4	Pir Bux	Farming	Yes	2 nr.	-

Source: Survey of PAPs, PIC, June 2017

No physically or mentally disabled PAPs were identified.

4.3.7 Castes and Languages

The majority of the affected households (14) belong to the Mazari caste, the remaining two belong to the Mirani and Malik castes. These castes are not related to religion and are not immutable.

Balochi language is commonly spoken as mother tongue of the PAPs. However, Sindhi and Sareiki languages are also spoken and understood as local languages.

4.3.8 Social Cohesion and Conflict in the Col

4.3.8.1 Social Structure

The social structure and conflict resolution mechanisms of the Col and sub-project area are similar.

The majority of families in the study area live in joint family systems (parents live with their elders and children). The sharing of resources is beneficial in term of joint incomes, manpower (agricultural practices) and basic amenities such as water, electricity, housing and food.

Social organization in all villages is strongly based on the tribal system, where each tribe has a tribal leader. The families belonging to the same tribe have strong interactions with one another and generally keep separate identities. For example, in the marriages of their young, they prefer to marry within their own tribe. Such interactions between different tribes are less common.

During the survey, it was found that most communities had built their own religious structures and maintenance of these religious structures was by the villagers themselves.

4.3.8.2 Conflict Resolution within Tribes and Castes

During the field survey of it was observed that most activities are carried out under the instruction of the head of tribe. The caste system in the rural area of the Sindh is very rich, and decisions about conflict, right of vote, marriage settlements and other matters are usually resolved by the head of tribe. Most of the conflicts in the Col are mutually resolved within the tribe at the village level. Those living within the Col feel obliged to accept the decision of their tribe leader.

It has been observed in rural Sindh that where more than one tribe has settled within a single village, each tribe has their own tribe leader. Overall there is a village leader from the same village and who belongs to an influential political family or a land lord and is from a financially sound family of the village. The majority of conflicts are resolved by tribe leader, and if not solved at this level, the matter shall be elevated to the village leader.

Occasionally, where the conflict cannot be resolved at a village level, the matter may go to the political leaders of the area. In extreme cases where resolution at all other levels has failed, conflicts may go to police and ultimately a court of law. The police and the court of law are the last options and these are rarely exercised.

5 Consultations with Project Affected Persons

5.1 General

To comply with WB safeguards, the sponsors of the projects resulting in involuntary resettlement are required to prepare and publicly disclose a Resettlement Plan. The plan 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 implementation of the plan for the sponsor or other responsible parties. This chapter provides details of consultations carried out with affected persons during the preparation of this ARP.

Note that a process of wider consultations was carried out as part of the environmental and social assessments for the project by PIC in 2014. As part of this process, PIC carried out public consultations at various locations in the proposed sub-project area and with key stakeholders outside the sub-project area. These stakeholder consultations targeted the sub-project area, local administration, government officials, business owners (small and large) and local communities in and around the sub-project area. These consultations included consultations with those identified as PAPs within the ARP. Further details of these consultations can be found in the Environmental and Social Impact Assessment (2014)⁹.

5.2 Objectives of Consultation

Public consultation plays a vital role in studying the effects of the sub-project on the stakeholders (including affected persons), and in the successful implementation and execution of the proposed sub-project. Public involvement is a compulsory feature of resettlement planning, 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 resettlement planning, and ensure their views are incorporated into the ARP;
- Discuss and agree on mitigation measures;
- 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 sub-project and ARP;
- Ensure that views and concerns of the stakeholders are incorporated into the sub-project design and implementation with the objectives of reducing or offsetting negative impacts and enhancing benefits of the proposed sub-project;
- Create a sense of ownership among the stakeholders regarding the sub-project;
- Increase public confidence about the proponent, reviewers and decision makers; and
- To ensure the transparency in all the sub-project activities.

⁹ Mott MacDonald 'Guddu Barrage Rehabilitation Project, Design Report. Annex E: Environmental and Social Impact Assessment (ESIA)' November 2014

5.3 Methodology

PIC completed second stage consultations with PAPs during the fieldwork in June 2017 for the collection of socio-economic baseline data. Consultations were held separately with each affected household. Representatives from PMO and the ID participated in the consultations, these representatives are detailed in Table 22. In order to facilitate an open dialogue there was no set format to the consultations, however, the following topics were discussed in each case:

- Demographic characteristics of the household, ethnic groupings, and vulnerable family members;
- Livelihood activities of the PAPs;
- Women's role in socio- economic life;
- Access to health facilities, education facilities and social amenities;
- Introduction to the sub-project, to obtain the views of PAPs on the sub-project works and impacts;
- Impacts to unauthorised structures on the embankments;
- Options and rights of PAPs pertaining to resettlement and compensations, entitlements of PAPs and cut-off date for entitlements;
- Relocation options and preferences for PAPs, and impacts of relocation;
- Process of, and proposed dates for, resettlement and compensation;
- Appropriate compensation rates;
- Grievance redress mechanism;
- Opportunities for employment during implementation of the works; and,
- A question and answer session.

Following consultations with PAPs regarding relocation options, consultations were also held with host communities.

5.4 Consultation Outcomes

The key outcomes of the consultations are discussed in the following sections. Note that some outcomes have been used to determine the socio-economic baseline, and have been discussed in Chapter 4.

5.4.1 Cut-off Date

PAPs were informed that the cut-off date for eligibility for entitlements under this sub-project has been set as the 9th June 2017. The 9th June 2017 was the first working day of the PIC team in the field to conduct the census survey of the Col. It was discussed in all consultations that any person constructing assets or using government owned land within the Col after this date will not be eligible for entitlements under this ARP.

5.4.2 Impact to Structures

PAPs informed the field team that the loss of their structures would be a significant impact as they cannot afford to reconstruct them, especially as some have very low income levels. It was agreed that PAPs would be compensated for their impacted structures at replacement cost, in accordance with the entitlement matrix. In addition, those with the lowest income will be provided with additional compensation to safeguard them against the impacts associated with resettlement.

5.4.3 Relocation Locations

5.4.3.1 Residential Structures

All PAPs preferred to manage their own relocation. With the exception of two households on the left guide bund, all affected households have moved from villages which are within the sub-project area. The native village of the other two households is Ranjho Khan Mazari village, located approximately 8km from their present position. All affected households maintain close social contacts with members of their native village, and in many cases their native village is adjacent to their position on the embankment. They prefer to return to their native villages, where their extended families are living. The affected families reported that they have free access to land within their native villages (and in some cases their original houses are still vacant). Consultations were also carried out with community leaders in the host (native) villages which confirmed that the affected households would be readily accepted back.

The resettlement location of each household losing residential land is summarised in the following table.

Table 14: Resettlement Location for PAPs Losing Residential Land

Ref	Head of Household	Occupation	Original Village/ Resettlement Location	Distance to Resettlement Location
LEFT SPUR				
LS1	Sijawal Mazari	Farming	Khando Mazari	200m
LS2	Abid Hussain	Farming	Khando Mazari	200m
LS3	Sanwan	Farming	Khando Mazari	200m
LS4	Mohammad Afzal	Farming	Khando Mazari	200m
LS5	M.Ayoub	Farming	Khando Mazari	200m
LEFT J-SPUR				
LJS1	Ghulam Qadir	General Labour	Sher koh	2km
LJS2	Morzada	General Labour	Sher koh	2km
LJS3	Mustafa	General Labour	Sher koh	2km
LJS4	Wazir Hussain	General Labour	Sher koh	2km
LJS5	Ghani Khan	General Labour	Sher koh	2km
LEFT SPUR EXTENSION				
LSE1	Long Malik	Farming	Shamsher Khan	500m
LEFT GUIDE BANK				
LGB1	Nasir Ahmed	Fishing	Guddu Meerani	50m
LGB2	Ali Sher Meerani	Fishing	Guddu Meerani	1km
LGB3	Farman Ali	Farming	Ranjho Khan Mazari	8km
LGB4	Pir Bux	Farming	Ranjho Khan Mazari	8km

The resettlement locations relative to the existing locations of the affected households are shown in the following figures. The impact of relocation is discussed further in Chapter 6.

Figure 14: Resettlement Locations for Households on Left Spur and Left J-Spur



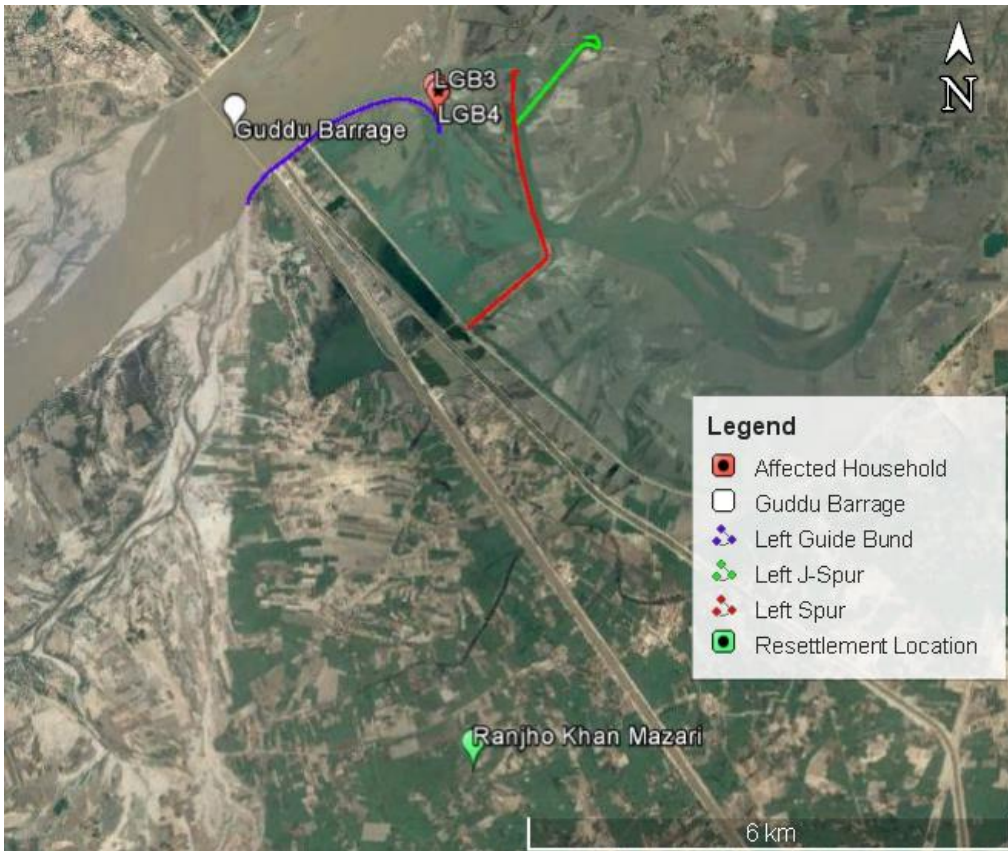
Source: Prepared using Google Earth Pro

Figure 15: Resettlement Location for Households LGB1 and LGB2



Source: Prepared using Google Earth Pro

Figure 16: Resettlement Location for Households LGB3 and LGB4



Source: Prepared using Google Earth Pro

5.4.3.2 Commercial Structures

The owner of the affected commercial structures on the right spur (ref RS1) expressed concern that if they were to rebuild these structures within their village of Sher Khan Mazari (where the household currently live) there would be an increased risk of the structure being flooded during high flows in the River Indus. This is the reason why the household had chosen to construct the stores on the embankment, rather than within the village that they currently reside. Should the structure be flooded when full of produce, all the produce would be ruined, and the investment in this produce lost. It was agreed during the consultation that the affected household would be permitted to rebuild the structures on the embankment and shift the stored produce during implementation of the works, but that this does not imply tenure rights to the land that the rebuilt structure is situated on. Through consultation with the contractor, it will be possible to rehabilitate a nearby portion of the embankment, and construct new stores and shift the contents prior to rehabilitating the portion of the embankment on which the stores are currently located.

5.4.4 Consultations with Affected Women

Separate consultations were completed by a female sociologist with female PAPs in November 2015 as part of the resettlement planning. During the consultations in June 2017, the field team also carried out consultations with elderly women, accompanied by male family members.

Figure 17: Consultation with Affected Women



Source: PIC, female consultations, November 2015

Figure 18: Discussing Impacts to Hand Pumps with Affected Women



Source: PIC, female consultations, November 2015

These consultations revealed that affected women's primary concerns were:

- Assurances that proper compensation would be provided for their homes, as well as for assistance in shifting their belongings from their existing homes back to their native villages – the team explained that PAPs were entitled for compensation for their lost assets, as well as a transport allowance to shift their belongings.
- Negative impact to household income as a result of the relocation – the team explained that PAPs operating affected commercial structures are eligible for a livelihood allowance, and that additional compensation would be provided to those with very low household income. The impact to the income level of PAPs is discussed further in Chapter 6.
- Risks to safety, security and privacy of the local communities during implementation of the sub-project, in particular with the migration of workers from outside the sub-project area – mitigation measures formed as part of the environmental and social assessment for this sub-project, and included in the civil works contract documents, were discussed during the consultations. PAPs were assured that contractors were required to provide separate and secure camps for outside labourers, that they would not be permitted to enter into local communities and that all migrant workers will receive training on local sensitivities as part of their induction. The PAPs were also informed that each contractor is required to employ a qualified Community Liaison Officer to lead continued consultation activities with the local community so that continued feedback would be possible. The PAPs were also reminded of the grievance redress mechanism for the sub-project.

5.4.5 Hand Pumps

The use of hand pumps by affected women was also discussed. Women informed PIC's female sociologist that they rely upon their hand pumps within their homes for daily use for both domestic and livestock needs. It was discussed and agreed that materials and labour for the installation of new hand pumps are available in Guddu town (immediately adjacent to the barrage), and that PAPs will be able to arrange for local installation of hand pumps if provided with sufficient compensation. As the hand pumps are used on a daily basis, it is important that compensation is provided in advance of clearance of the Col to ensure new hand pumps can be installed before the existing hand pumps are removed from the Col.

5.4.6 Employment in the Sub-Project

During consultations, PAPs expressed keen interest in labour employment opportunities which will arise from the sub-project works and demanded to be offered employment. It was discussed with PAPs that these opportunities had already been considered as part of the sub-project planning, and that the contractors are required to offer employment to local community members. As part of the civil works contracts, the contractors are to prepare and implement a plan for disseminating employment opportunities within the sub-project area. Each contractor is required to employ a qualified Human Resources Officer and Community Liaison Officer to lead these activities.

6 Assessment of Impacts

6.1 Identification of PAPs

Prior to implementation of the sub-project, clearance over the footprint of the works (defined as the Col) will be required. The resettlement scoping exercise carried out for this ARB (see Section 3.5) has identified that the Col is occupied by families living in shelters, and in a limited number of cases, conducting business and farming at the following locations:

- Left bank spur embankments upstream of Guddu Barrage;
- Right bank spur embankments upstream of Guddu Barrage;
- Left bank guide bund embankments at Guddu Barrage; and,
- Footprint of proposed left bank spur complex, upstream of Guddu Barrage.

The measurements of the Col vary depending upon the design levels/dimensions and the existing level/dimensions of the embankment. The Col is equal to the footprint of the design embankments and the associated stone protection works.

A PAP is defined as any person, whose land, shelter, assets, infrastructure, source of livelihood or access to resources is to be affected by the sub-project activities. PAPs can be divided into the following two groups:

1. Directly and Partially Affected Persons: This group includes people whose land, houses, other built-up property, source of livelihood or access to resources will be affected due to sub-project activities.
2. Indirectly Affected Persons: This group includes people who will not lose their land, houses or built-up property, but whose social relations and/or free mobility would be indirectly disrupted due to sub-project activities.

Any person whose land, assets, infrastructure, source of livelihood or access to resources is likely to be affected by the sub-project activities is therefore considered to be a PAP. In the context of this sub-project, all those who will lose shelter, commercial structures or land that they farm due to clearance of the Col are considered PAPs.

Impacts to indirectly affected persons have been covered in the Environmental and Social Assessment¹⁰ and Social Management Framework¹¹ for this sub-project. These documents stipulate a number of actions taken during the planning and design, as well as actions to be implemented by contractors implementing the sub-project works, to prevent any significant impact to this group. This group is not considered within this ARP.

6.2 Cut-Off Date

A census survey was completed by PIC to identify the PAPs. The census began on the 9th June 2017, and as such the cut-off date for eligibility under this ARB is the 9th June 2017.

¹⁰ Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Guddu Barrage Rehabilitation, Environmental and Social Assessment, Report by Independent Environmental Consultants (Reviewed Draft for Disclosure)', December 2014, Government of Sindh

¹¹ Sindh Irrigation Department, 'Sindh Barrage Improvement Project, Rehabilitation and Modernization of Guddu Barrage, Social Management Framework', December 2014, Government of Sindh

6.3 Overview of Impacts

A total of 35 privately owned structures (including four hand pumps and two mosques) have been constructed illegally within the Col and will be removed under the sub-project. The owners of these assets have no formal recognisable rights to the land occupied by their assets. Of these structures, 23 are owned by 16 households and ten have been abandoned. The remaining two structures are mosques, one of which is community owned and the second is abandoned. Both will be removed under the sub-project.

A total of 16 households, who own the impacted structures, will be affected by the sub-project. One of these households is also illegally farming two acres of land within the Col. The total number of PAPs is 133.

Full details of the structures to be removed, and the affected households, are provided in Appendix C.

Note that in this ARP, a structure is defined as a single continuous structure fixed to the ground, including all the rooms within that structure, any sheds built against or over that structure, and boundary walls associated with the structure. For example, a single house may contain multiple rooms (bedrooms, living room), a kitchen, a shed and a boundary wall.

6.4 Loss of Structures and Hand Pumps

A summary of impacted structures is provided in the following table.

Table 15: Summary of Impacted Structures within the Col

Type of Structure	Left Spur	Left J-Spur	Left Spur Extension	Right Spur	Left Guide Bund	Total Number
Residential	5	5	1	-	4	15
Otaq	1	-	-	-	1	2
Shop or Store	-	-	-	2	-	2
Hand Pump	2	-	1	-	1	4
Mosque ¹²	1	-	-	-	-	1
Abandoned Structures	3	1	1	5	1	11
Total	12	6	3	7	7	35

Source: Survey of PAPs, PIC, June 2017

Full details of the affected structures are provided in Appendix C.

6.4.1 Residential Structures

A total of 15 residential structures, occupied by 15 different households, will be removed from the Col. This shall result in the loss of shelter for all 15 households, consisting of 128 people (including 22 children aged less than 10 years old and two aged over 65 years old). Of this, 13 households and 106 PAPs are living below the poverty line. Without reconstruction of these structures, there will be a significant and direct impact upon the wellbeing of all 128 PAPs. The impact will be exacerbated for the 106 PAPs living below the poverty line. Full details of the owners of the affected structures are provided in Appendix C. Typical residential structures are shown in the following figures.

¹² The second mosque is recorded under 'Abandoned Structures'

Figure 19: Katcha House – Left J-Spur



Source: Survey of PAPs, PIC, June 2017

Figure 20: Katcha House – Left Guide Bund



Source: Survey of PAPs, PIC, June 2017

Figure 21: Katcha Houses – Left Spur Extension



Source: Survey of PAPs, PIC, June 2017

The cost of reconstruction would be a significant expenditure for these households, who have a very low income. This would require a reduction in expenditure on basic commodities (such as food, clothes and medical expenses), which would also have a significant impact on the wellbeing of these PAPs.

Sufficient compensation to allow the affected households to reconstruct their houses without impacting upon their wellbeing through increased expenditure is detailed in Section 7.2.

6.4.2 Commercial Structures

One household (ref RS1) owns two adjacent commercial structures on the right spur (further details of the business run from these structures can be found in Section 4.3.2.1). Full details of the owner of the affected structures are provided in Appendix C.

The two structures will be permanently removed from the Col. Without reconstruction of these structures, this will result in a significant and direct impact upon the income of the household. The cost of reconstruction of these structures would be a significant expenditure for the household, who are living below the poverty-line. This would require a reduction in expenditure

on basic commodities (such as food, clothes and medical expenses), which would also have a significant impact on the wellbeing of these PAPs. The impact to the income of these PAPs is discussed further in Section 6.6.

Sufficient compensation to allow the affected household to reconstruct these structures without impacting upon their wellbeing through increased expenditure is detailed in Section 7.2.

6.4.3 Otaqs

Otaqs can be described as guest houses. Typically, they are privately owned by a single household from within a community (generally the head of the community) and are used to welcome and, if necessary, house visitors from outside the community. No income is earned from otaqs – otaqs facilitate hospitality to outsiders by the community. Two otaqs will be removed from the Col for this sub-project. Without reconstruction of these structures, the social interactions of the affected household and their surrounding community will be impacted, but there will be no direct impact to their wellbeing. Full details of the owners of the affected structures (ref LS1 and LGB3) are provided in Appendix C. The two impacted otaqs are shown in the following figures.

Figure 22: Otaq on Left Spur



Source: Survey of PAPs, PIC, June 2017

Figure 23: Otaq on Left Guide Bund



Source: Survey of PAPs, PIC, June 2017

Sufficient compensation to allow the affected households to reconstruct otaqs is detailed in Section 7.2.

6.4.4 Hand Pumps

Of the 16 affected households, three will also be impacted by the removal of four privately owned hand pumps. The removal of these hand pumps shall result in a reduction in the availability of drinking water within the Col. The income of the affected households is low, and without sufficient compensation, these households shall not be able to install new hand pumps outside the Col, resulting in a long term negative impact to their wellbeing. Full details of the owners of the affected hand-pumps (ref LS1, LSE1 and LGB3) are provided in Appendix C.

Sufficient compensation to allow the affected households to reinstall handpumps is detailed in Section 7.2.

6.4.5 Mosques

One operational mosque has been illegally constructed on the left spur within the Col¹³. This brick-built mosque is owned by the community and used by five affected households living on the spur. It is shown in the following figure. The removal of this mosque will result in the loss of a place of worship for these five households. Without the reconstruction of the mosque, or access to an alternative mosque within the same distance, this will be a long-term impact. However, as the mosque is community owned, it is not possible to identify a single household who would receive compensation and reconstruct the mosque. Assistance to reconstruct this mosque is detailed in Section 7.3.

Figure 24: Brick-built Mosque on the Left Spur



Source: Survey of PAPs, PIC, June 2017

6.4.6 Abandoned Structures

A total of 11 abandoned structures were identified within the Col. These include five residential structures (of which three are remaining portions of houses only), two commercial structures, three otaqs and a mosque. With the exception of the mosque (which is brick-built), all of the abandoned structures were of katcha construction (mud/straw). Consultations with surrounding households revealed that these structures have been abandoned for a number of years and are no longer in use at any time during the year. The owners of the structures are unknown. The removal of these structures from the Col will have no direct impact to people in the sub-project area. Examples of abandoned structures are provided in the following figures, and full details are provided in Appendix C.

¹³ A second abandoned mosque was also identified to fall within the Col on the left spur.

Figure 25: Abandoned Mosque on Left Spur



Source: Survey of PAPs, PIC, June 2017

Figure 26: Abandoned House at Spur Extension



Source: Survey of PAPs, PIC, June 2017

6.5 Loss of Land

6.5.1 Residential Land

15 households, consisting of 128 PAPs, have illegally constructed residential structures on the government owned embankments within the Col for this sub-project. These households shall be required to vacate this land for implementation of the sub-project. None of the 15 households own titles to the impacted land as it is all government owned.

During consultations with PAPs in June 2017, potential resettlement locations were discussed with the affected households. As discussed in Chapter 5, affected households prefer to remain within their existing communities, and expressed a preference to resettle to their original villages rather than being resettled to a separate location in order to maintain their social connections. During consultations, the households indicated that they maintain close connections with the originating villages (in some cases they are situated adjacent to their locations on the embankment) and that they did not expect any conflicts to arise from returning to their villages. The resettlement location of each household losing residential land is discussed in Section 5.4.3.

As the PAPs have access to land for reconstruction of their homes, a major impact is not expected. However, the cost of relocating their household possessions will be a difficult to bear given their low income levels, and if not mitigated will have a short-term but direct impact on the PAPs. Sufficient compensation to allow the affected households to shift their belongings is detailed in Section 7.2.

6.5.2 Commercial Land

One household (ref RS1), consisting of five PAPs, has illegally constructed two commercial structures on the government owned embankments within the Col for this sub-project. The household does not own the title to this land as it is government owned.

The household has alternative land available within the village (Sher Khan Mazari) that they currently reside in. This village is located approximately 50m away from the location of the commercial structures. However, the flood risk in Sher Khan Mazari is higher than on the

embankments, and the village is prone to flooding at times of high flow in the River Indus. It would be difficult for the household to shift large volume of produce in the event of a flood. Should the produce stored in these structures being impacted by flood waters, the household would lose their investment in all stored produce which would have a significant direct impact on the income to the family, and their wellbeing (these structures contribute to 45% of the total household income). Assistance to provide a suitable location for the commercial structures is detailed in Section 7.5.

Furthermore, the cost of relocating any produce stored in the structures will be a difficult to bear given their low income level of the household, and if not mitigated with have a short-term but direct impact on the PAPs. Sufficient compensation to allow the affected household to shift the contents of these structures is detailed in Section 7.2.

Note that this affected household resides outside the Col, and as such, their residential structures will not be impacted.

6.5.3 Industrial Land

No land used for industrial purposes will be impacted by the sub-project.

6.5.4 Religious

One community has illegally constructed a mosque on the government owned embankments within the Col for this sub-project. The community does not own the title to this land as it is government owned. If the community does not have access to land for reconstruction of this mosque, members of the mosque will be required to travel further for worship. Assistance to reconstruct this mosque is detailed in Section 7.3.

6.5.5 Institutional Land

All institutional land that shall be impacted by the sub-project is currently owned by the Irrigation Department, and shall remain under ownership of the Irrigation Department.

6.5.6 Agricultural Land

The permanent acquisition of privately owned land is not required for this sub-project.

An area of two acres of government owned land which is illegally farmed by one affected household (ref LSE1) will be permanently lost during the construction of the left spur extension. The impacted area is flooded (and non-productive) during the Kharif season every year. During the Rabi season, the affected household farms wheat on the impacted area.

Following implementation of the sub-project, this area will no longer be available for cultivation by the affected household, therefore this will result in a permanent reduction of income to this household of nine PAPs. However, this area represents just 13% of the total area farmed by this household, and as such the severity of the impact will be reduced.

If the area is farmed at the time of implementation of the works at this location, the household will also lose up to two acres of standing crop. This shall result in the loss of any money invested in crops which have been planted but not harvested at the time that works are implemented. Compensation for any lost crops is detailed in Section 7.7.

6.6 Impact to Income

6.6.1 Farming

The primary income of eight affected households is from farming. There will be no direct impact to the farmland of seven of these households as they are farming land beyond the Col.

However, one household illegally farms land within the footprint of the left spur extension. Of the 15 acres of land that the household farms, two acres will be permanently lost as a result of these works. Assuming all land is similarly productive, this will equate to a permanent reduction in their household income of approximately 13%.

Other than direct impacts to farmland, there is a potential impact resulting from the relocation of the farming households if they can no longer access their farmland from their new location.

Consultations (refer to Section 5.4.3.1) revealed that the five farming households on the left spur and at the location of the left spur extension will move less than 500m to their native villages. They are currently farming land adjacent to their native village, and therefore access to their farmland will not be impacted.

The two farming households on the left guide bund (ref LGB 3 and LGB 4) will relocate approximately 8km from their existing location. Currently, both households farm land adjacent to their existing location. Following relocation, the households will be required to travel 8km to reach their farmland. Each household owns a motorcycle which may be used to complete this journey.

6.6.2 General Labourers

The field survey identified five households living on the left J-spur who depend on general labour as their source of income. These households find employment on agricultural land in the sub-project area during the Rabi season. In the Kharif season, when the agricultural land is flooded they temporarily move their families to find employment in cotton picking, sugarcane and fruit harvesting on lands beyond the flooded riverine areas. As their source of income is outside of the Col, there will be no direct impact on their income.

The farmland on which the work during the Rabi season is located equidistant between their current location and the location they propose to relocate to, therefore, there will be no impact on access to their source of income in the Rabi season due to the relocation. For employment in the Kharif season, it is assumed they will continue to move temporarily outside the sub-project area.

6.6.3 Fishing

Two households (ref LGB1 and LGB2) are dependent on fishing for their income. They fish from the lakes which are outside of the Col, and sell their fish beyond the Col, therefore there will be no direct impact upon their income.

Of the two households, LGB1 will relocate their residence just 50m from their existing position, so there will be no impact on their ability to access their source of income. LGB2 will relocate their residence 1km. If the household wishes to continue fishing upstream of the barrage, they will need to travel 1km to reach their boat, however, they indicated during consultations that they intend to relocate their boat closer to their proposed residence and fish from the downstream area of Guddu Barrage.

6.6.4 Small Businesses

One household (ref RS1) owns two commercial structures within the Col. The household will experience a direct impact on their income due to the loss of these structures and loss of trade. This will equate to a loss of approximately 45% of their household income. Their remaining source of income (rent of a tractor) will not be affected by the proposed works. Compensation for the impact to commercial income is detailed in Section 7.8.

6.7 Vulnerable PAPs

Section 4.3.6 identifies households which are considered vulnerable under this ARP. Vulnerable households have low and fragile incomes, and may experience circumstances which will result in a sudden and unexpected decrease in the income (such as unavailability of employment) or an increase in their household expenditure (such as illness or death in the family). Should such a change coincide with other sub-project impacts, the household will be less able to absorb the change without compromising the health and wellbeing of the family.

The impacts discussed in the sections above will likely be exacerbated for vulnerable households

In order to mitigate this impact, additional cash allowances are proposed for vulnerable households in Section 7.9.

6.8 Impacts on Women Headed Households

During the surveys of the sub-project area, it was found that no women headed households exist in the Col.

6.9 Impacts on Trees

All trees to be cut during implementation of the sub-project are government owned. To mitigate the adverse impacts, provision for re-plantation has been included in the civil works contract. The contractor shall plant five trees for every one tree which is cut.

6.10 Summary of Impacts

A summary of impacts is provided in Table 16, note that there are 16 impacted households in total, one household may be subject to multiple impacts detailed in Table 16. The impacts by individual households are summarised in Table 17.

Table 16: Summary of Sub-Project Impacts

Type of Loss	Application	Definition of Entitled Person	Unit	Rehabilitation of Left Spur	Rehabilitation of Right Spur	Rehabilitation of Left Guide Bund	Left Spur Extension	Total
Structures (residential, or institutional) and hand pumps	Entire loss of structure	Owner of affected structure without title or right to land at which it is sited	Impacted households	10	-	4	1	15
Structures (religious)	Entire loss of structure	Impacted community	Impacted community	1	-	-	-	1
Structures (commercial)	Entire loss of structure	Owner of the affected structure with or without valid title or customary right to land at which it is sited	Impacted households	-	1	-	-	1
Land (residential, commercial, industrial, religious or institutional -excluding assets)	Loss of land without sufficient remaining land for continued use/habitation	PAPs without title (Squatter/ Informal Settlers)	Impacted households	10	1	4	1	16
		Impacted community	Impacted community	1	-	0	0	1
Land (agricultural - excluding standing crops)	Partial and permanent loss of land with remaining holding economically viable (greater than 0.5 acres)	PAPs without title (Squatter/ Informal Settlers)	Impacted acres (Impacted households)	-	-	-	2 (1)	2 (1)
Loss of crops	Loss of planted crops that could not be harvested	Owner of affected crop (regardless of land ownership rights)	Impacted acres (Impacted households)	-	-	-	2 (1)	2 (1)
Loss of trade/ occupation or business incomes	Loss of trade/occupation or business due to dislocation or loss of asset (except agricultural land or crops)	Owner or employee of affected business	Impacted households	-	1	-	-	1
Any loss above	Vulnerable allowance	PAP classed as vulnerable regardless of legal entitlement to land	Impacted households	8	1	4	1	14

Table 17: Summary of Sub-Project Impacts by Household

Type of Loss	Household Reference																Total
	LS 1	LS 2	LS 3	LS 4	LS 5	LJS 1	LJS 2	LJS 3	LJS 4	LSJ 5	LSE 1	RS 1	LGB 1	LGB 2	LGB 3	LGB 4	
Structures (residential, or institutional) and hand pumps	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	15
Structures (commercial)													✓				1
Land (residential, commercial, industrial, religious or institutional -excluding assets)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
Land (agricultural - excluding standing crops)											✓						1
Loss of crops											✓						1
Loss of trade/ occupation or business incomes												✓					1

7 Compensation and Resettlement Assistance

7.1 General

This ARP has been prepared on the basis of the findings of the census survey and by adopting the legal and policy framework of the RPF for the project, Government of Pakistan and the WB policies as reflected in the Entitlement Matrix (refer to Chapter 2 for detailed). This Entitlement Matrix was discussed during consultations as part of the proposed mitigation measures. This ARP focuses on providing assistance in the form of compensation for the lost assets and additional assistance aimed at restoring the livelihoods of PAPs to their pre-project condition. This section details the applicable entitlements, grouped by the type of loss in order to remain consistent with the Entitlement Matrix and the impacts for this project as detailed in Chapter 6.

7.2 Loss: Privately Owned Structures

7.2.1 Application: Entire Loss

7.2.1.1 Entitled Person: Owner of Structure

Owners of structures which are to be removed from the Col are eligible for compensation to rebuild the affected structure, regardless of whether they own the land on which the structure is situated.

Entitlement: Compensation for Replacement of Structures

All the structures in the Col are illegally built on government land. Data on assets within the Col has been collected through physical inspection and measurement of the structures. Full details of structures are given Appendix C.

A valuation survey was undertaken by PIC to calculate the unit rate for compensation for loss of residential and commercial structures and related assets. The rates were determined by engineers and sociologist from PIC, in consultation with the PAPs and market places in as detailed in Appendix D. Using this data, the unit rates used for valuation of affected structures was determined. These are based on the prevailing market rates as of June 2017, and the following procedures for the assessment of unit compensation values of different items/ assets located within the Col:

- Houses are valued at replacement value/cost based on cost of materials, type of construction, labour, transport and other construction costs.
- Hand pumps and other utilities are valued at current installation cost.
- The relocation cost is the amount needed to displace and relocate assets at prevailing market prices without adding costs for transaction.

Table 18: Compensation Rates for Replacement Assets

Description	Unit	Unit Rate (PKR)
(i) Residential, Commercial, Community or government	Sq. ft.	Pacca = 930
		Semi-pacca = 630
		Kacha = 180

Description	Unit	Unit Rate (PKR)
(ii) Straw Shed, Animal Shed	Sq. ft.	Kacha = 150 Straw Shed = 100
(iii) Boundary Wall	5 ft height & 1 ft. length in running ft.	Pacca = 1097 Semi-pacca = 710 Kacha = 336
Hand pump	Number	8,000

The compensation cost for privately owned structures is based on the valuation of structural assets provided in the table above. Owners of privately owned structures shall be paid compensation for replacement of their structures in full, regardless of the entitlement of the PAPs to the land in which the affected structure is located and regardless of where they will rebuild these structures.

The details of compensation for structures is provided in Appendix E (with a detailed breakdown provided in Appendix C).

Entitlement: Transport Allowance

This allowance shall be paid regardless of any other assistance (i.e. this allowance shall be paid to households who will rebuild affected structures on private land or government owned land).

Standard Transport Allowance

A standard transport allowance shall be paid to each household owing assets in the Col to cover the cost of that household to shift their belongings to their new location where their new location is within five km of their existing location. The standard transport allowance has been valued at PKR 6,000 per household and shall cover two tractor trolleys to transport goods within a five km radius. This allowance has been calculated based on quotes of PKR 3,000 obtained from local transporters in June 2017 to use one tractor trolley to transport goods up to five km.

Long Distance Transport Allowance

A long-distance transport allowance is provided to the two households on the left guide bund (ref LGB3 and LGB4) who will relocate to their native village of Ranjho Khan Mazari at a distance of 8km from their existing location. The long-distance transport allowance will be PKR 10,000 and will cover two tractor trolleys to transport goods within a radius of 8km. This allowance has been calculated based on quotes of PKR 5,000 obtained from local transporters in June 2017 to use a single trolley to transport goods up to 8km. Households receiving a long-distance transport allowance will not also be eligible to receive a standard transport allowance.

7.3 Loss: Religious Structures

7.3.1 Application: Entire Loss

7.3.1.1 Entitled person: Affected Community

The mosque constructed on the left spur is used by the five affected households living on this spur (ref LS1 to LS5). This community is eligible for the following compensation.

Entitlement: Reconstruction of the Mosque by ID

It is not possible to identify a single household who would be eligible for receipt of compensation and responsible for reconstruction of this mosque. Therefore, it was agreed that the mosque would be reconstructed at the village of Khando Mazari (where households ref LS1 to LS5 will relocate). The reconstruction will be completed by the contractor implementing contract SBIP/G3 and will be paid for as a variation to this contract. The total cost is estimated to be approximately PKR 550,000. The contractor will be required to complete construction of this mosque prior to clearance of the existing mosque from the Col.

7.4 Loss: Land (Residential)

7.4.1 Application: Entire Loss

7.4.1.1 Entitled Person: PAP without Valid Title

PAPs who shall lose the land on which their residential structures are located, but who do not own the title to the land on which these structures are located have been consulted and have agreed to relocate to their native villages, as detailed in Section 5.4.3.1.

Entitlement: Not Applicable

PAPs without a valid title to the land on which their residential structures are situated are not eligible to any additional compensation or assistance under this ARP. However, these PAPs will be entitled to cash compensation for their affected assets and a transport allowance, both as detailed in Section 7.2, as well as additional compensation in the case of vulnerable households, as detailed in Section 7.9.

7.5 Loss: Land (Commercial)

7.5.1 Application: Entire Loss

7.5.1.1 Entitled Person: PAP without Valid Title

The affected household (ref RS1) who will lose the land on which their commercial structures are located, but who do not own the title to the land on which these structures are located have been consulted and have indicated that the income they earn from these structures will be compromised if they relocate the structures to their home village (refer to Section 5.4.3.2).

Entitlement: Alternative Government Owned Site

The affected household will be permitted to rebuild their commercial structures at an alternative location on the right spur on government owned land (but without the transfer of title to ownership of this land). They are also entitled to cash compensation for their affected assets and a transport allowance, both as detailed in Section 7.2, as well as additional compensation where identified to be vulnerable, as detailed in Section 7.9.

7.6 Loss: Land (Agricultural)

7.6.1 Application: Partial and Permanent Loss

7.6.1.1 Entitled Person: PAPs without Valid Title

Entitlement: Not Applicable

In the event of partial loss, PAPs without a valid title to the land which they are farming are not entitled to compensation for the loss of this land. However, the PAPs are still eligible for the loss of any standing crops, as detailed in Section 7.7.

7.7 Loss: Crops

7.7.1 Application: Loss of Planted Crops

7.7.1.1 Entitled Person: Owner of Affected Crop

The owner of planted crops which are lost as a result of the sub-project is eligible for compensation regardless of their land ownership rights.

Entitlement: Cash Compensation for Lost Crops

The affected person is eligible for cash compensation equivalent to the market value of the lost crops. The compensation rate has been calculated based on the average yield and value of cultivated crops during the June 2017 field survey. Local farmers reported that wheat yielded in between 40 to 50 mounds/ acre, so an average yield of 45 mounds/acre (1,800 kg/acre) has been adopted. The official rate of 40 kg during of wheat in 2017 is PKR 1,250. This equates to a value of PKR 56,250 per acre of planted crop.

It is not possible to anticipate whether crops which sown at the time of implementation of the sub-project. However, an allowance has been included of PKR 56,250 per acre, for up to two acres of lost crops.

Details of crop compensation due to PAPs under this sub-project are provided in Appendix E.

7.8 Loss: Income

It is anticipated that the sub-project will make a positive impact on the economy of the area. A number of employment opportunities will be created during the works, particularly for unskilled labour.

7.8.1 Application: Loss of Trade/Occupation or Business

7.8.1.1 Entitled Person: Owner of Affected Business

Entitlement: Livelihood Allowance

For the household owning commercial structures within the Col (ref RS1), a Livelihood Allowance shall be paid. In accordance with the RPF, this allowance has been calculated as equivalent of three months minimum wage in Pakistan (PKR 42,000 in 2017¹⁴). This will be provided to support the affected family losing their sources of livelihood in order to allow them to restore their business at a new location without any economic pressure. This allowance is

¹⁴ Based on a minimum wage of PKR14,000 per month for labour, as announced in the 2017 Government of Pakistan budget.

intended to compensate for any lost income during transition, relocation and reconstruction of their businesses.

Details of the livelihood allowance due to PAPs under this sub-project are provided in Appendix E.

7.9 Loss: All Sub-Project Direct Impacts

7.9.1 Application: Any Loss Above

7.9.1.1 Entitled Person: PAP classed as Vulnerable

This entitlement is due to any household defined as vulnerable in Section 6.7 of this ARP. The entitlement is based on household income, and as such is due only once per vulnerable household, regardless of the number of vulnerable PAPs in a household.

Entitlement: Payment of Vulnerability Allowance

Vulnerable households are less able to absorb any change in their socio-economic equilibrium, which may result in negative impacts to their wellbeing. For such households, in addition to the entitlements above, an additional vulnerability allowance will be paid in cash. In accordance with the RPF, this allowance has been calculated as equal to the equivalent of one month's minimum wage in Pakistan (PKR 14,000 in 2017). This allowance is intended to increase their resilience to other direct impacts identified in the preceding sections.

This allowance is additional to any other compensation or assistance that a household may be eligible to.

Details of the vulnerability allowance due to PAPs under this sub-project are provided in Appendix E.

8 Implementation

8.1 Institutional Arrangements

The following will hold responsibility for the implementation of this ARP. Please refer to Section 3.2 for an overview of the overall sub-project administration.

8.1.1 Sindh Irrigation Department

Project Management Office

As the project proponent, the PMO (formed within the ID) are overall responsible for the implementation of this ARP and will coordinate and monitor all implementation activities. While the ESU of PMO has delegated authority for implementation of this ARP, overall responsibility will remain with the Director of PMO.

Chief Engineer

The Chief Engineer of Guddu Barrage will hand the site over to the Contractors, and thereafter will prevent any further encroachment into the Col.

8.1.2 Monitoring and Evaluation Consultants

The M&EC will be responsible for overall third-party monitoring of the implementation of this ARP as well as monitoring actions taken in respect to any chance find items or design changes which may alter the land acquisition or resettlement requirements.

8.1.3 Project Implementation Consultants

PIC have no direct responsibility under this ARP, but will provide an interface between the contractors implementing the works and the PMO implementing the ARP. In particular:

- PIC will not approve any works requiring physical displacement or land acquisition prior to implementation of the relevant requirements of this ARP, or any subsequent resettlement plans;
- PIC will monitor the contractor's implementation of civil works to ensure no unnecessary resettlement is required;
- PIC will notify the contractor to temporarily cease works which will require resettlement or land acquisition beyond that envisaged in this ARP and notify the PMO of the potential resettlement and of the need to prepare a resettlement plan;
- PIC will notify PMO of any encroachment into the Col during implementation of the sub-project works.

8.1.4 Contractors

The contractors have no direct responsibility under this ARP, but will be required to notify employment opportunities and for monitoring job creation, in accordance with the civil works contracts. The Contractors will appoint and employ a full time Human Resources Officer who shall have a key role in identifying local job opportunities at the beginning of each contract. The Human Resources Officer will be required to pass on the details of available jobs to PMO for dissemination and advertisement of the job opportunities in sub-project and command areas.

The Human Resources Officer will also be required to report on the number of job vacancies filled by those from sub-project and command areas separately.

Furthermore, the Contractors will appoint and employ a full time Community Liaison Officer. This Officer shall, in conjunction with the PMO, be responsible for consultations with local communities to raise awareness of health and safety measures to be undertaken by communities in the project area (especially during embankment works) and discuss the mobility of women and children in the sub-project area (and identify alternative routes where applicable).

8.1.5 World Bank

The WB will review and approve this ARP.

8.2 Grievance Redress Mechanism

The grievance system under this project will primarily (but not exclusively) handle issues that emerge from Guddu Barrage Rehabilitation sub-project activities, or can be plausibly described as a consequence of these activities. Grievances arising from potential resettlement activities will be prominent within the scope of the GRM. The same mechanism will also be used to hear grievances relating to environmental and social management and performance of the project.

A Grievance Redress Committee has been formed for this project, and approved by the Project Steering Committee. The committee will meet quarterly but may need to meet on monthly basis during initial stages of implementation of this ARP. The aim of these meetings will be to provide advisory services regarding resettlement issues, and identify, discuss and resolve any blockers to successful implementation of this ARP in a timely manner.

The GRM described here is as described in the RPF for the project.

8.2.1 Principles, Procedures and Time-Lines

Bearing in mind the range of possible grievances, the following three basic standards shall underpin the proposed systems for handling these:

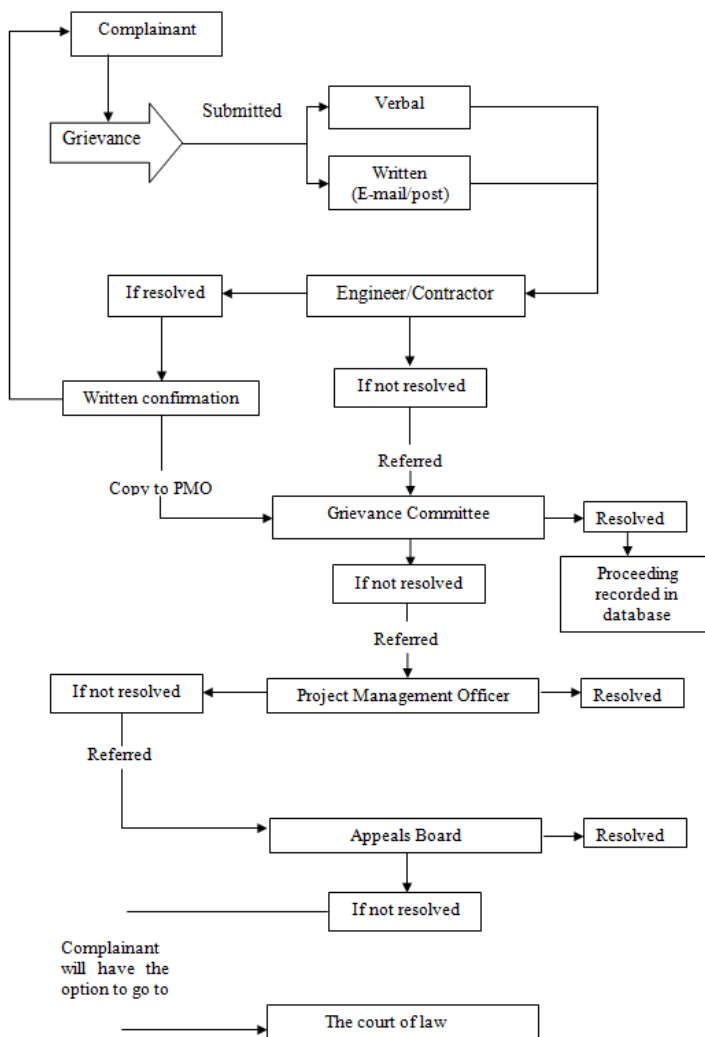
1. All grievances submitted in writing to staff assigned under PMO will be formally recorded, and a written acknowledgement issued.
2. Grievances will be dealt with on a referral basis; those that the Contractor or PIC are unable to resolve will be referred to the Grievance Committee, with a final provision for appeal to Director of PMO if an issue cannot be resolved with the Committee.
3. Every effort will be made to address or resolve grievances within the following fixed timelines, which will be an indicator against which the performance of the handling system is evaluated:
 - a. Acknowledgement of a written submission will be issued to the complainant within three working days.
 - b. If not resolved earlier by the Contractor or PIC staff on site, grievances will be tabled for discussion/resolution during Committee meeting within one week of receipt of the written submission.
 - c. If not satisfactorily resolved by the Grievance Redress Committee, the grievance will be referred for consideration by the Director of PMO within 1 week.
 - d. Cases that prove impossible to resolve through the Grievance Redress Committee may be referred to the Appeals Board to be appointed by ACS (Dev.) Planning and Development Department (Government of Sindh), comprising senior representatives from the Planning and Development Department, ID, and an independent legal expert. This

Board will meet as needed to adjudicate on cases and either send their recommendations for endorsement to the Chairman of the Planning and Development Department, or refer these for legal action. Where feasible, a response will be forthcoming to such appeals within two weeks of submission.

- e. If the complainant is not satisfied, the complaint will have the option to go to the court of law.

The Director of PMO may delegate responsibilities under this mechanism to a Deputy Director of the Environment and Social Unit where appropriate, but the Director of PMO shall remain responsible for any decision made by a Deputy Director on his behalf. The GRM is shown in the following figure.

Figure 27: Grievance Redress Mechanism



8.3 Implementation Plan

The schedule shown in Table 19 is proposed to ensure implementation of this ARP prior to implementation of works in areas which will have a direct impact on PAPs. The implementation 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 on payments is recognized in the period allowed for grievance resolution process.

The implementation schedule includes the civil works which will impact directly on any PAPs which have not vacated the Col. Those works with a direct impact are shown in red. The civil works schedule is based on the latest programme prepared by the contractor (as included in their bid submission) with adjustments for the revised commencement date (10th July 2017).

The methodology is discussed in the following sections. Note that PMO will maintain overall responsibility for implementation of the ARP.

8.3.1 Preparation of the ARP

The ARP has now been completed by PIC and is to be reviewed and approved as per the following section. Any necessary revisions are to be agreed and incorporated by PIC.

8.3.2 Review and Approval of ARP

This ARP will, in the first instance, be submitted to the Director of PMO for review, and subsequently to the WB for review and approval (following any agreed revisions).

8.3.3 Prevent Encroachment into Col

The Chief Engineer of Guddu Barrage will monitor the Col and provide eviction notices to any person(s) who have arrived, or do arrive, following the cut-off date provided in this ARP. The notice should inform the person(s) of the cut-off date and inform them that they shall not be eligible for compensation or assistance under this ARP. A copy of the grievance redress mechanism should also be provided to them.

8.3.4 Translation and Disclosure of ARP

PMO will translate this ARP into Urdu and Balochi, and ensure the translated versions of the ARP remain publicly available at the Irrigation Office at Guddu Barrage. The English and translated versions of ARP will also be published on PMO's website.

8.3.5 Notification of PAPs

PMO will prepare a unique package for each project affected household which includes the following information:

- Inventory of losses of each PAP in the household;
- Compensation to be paid to each PAP in the household;
- The date, time and venue for the disbursement of compensation;
- Detailing the requirement to present their National Identity Card (NIC) and submit a copy of their NIC on the date of disbursement;
- Detailing the requirement to obtain a stamp paper from the local court confirming the PAPs identity;
- For any PAP under the age of 18 or without a NIC, the PAP must provide an affidavit with photograph signed by the head of local government;
- The requirement to hold an open a bank account in order to receive compensation; and,
- Details of the Grievance Redress Mechanism.

These packages shall be distributed to the PAPs no later than one month prior to the date of disbursement of funds.

8.3.6 Open Bank Account

The Finance Manager of PMO will open a dedicated bank account to deal with compensation and its disbursement.

8.3.7 Transfer of Funds

Based on the budget provided in this ARP, the Finance Manager of PMO will submit the compensation budget to the ID, for transfer of funds into the bank account opened by PMO.

8.3.8 Disbursement of Compensation to PAPs

Disbursement of compensation shall be carried out in public by PMO. The identity of PAPs shall be verified through his/her NIC (or signed affidavit in the case of eligible PAPs under 18 years of age) and stamp paper. Following verification, payment of compensation shall be paid through a crossed cheque to the name of the PAPs. Payments of less than PKR 5,000 may be made in cash.

8.3.9 Vacation of PAPs from Col

PAPs shall be given one month from the date of disbursement of compensation to vacate the Col. ID shall be responsible for clearing Col.

8.3.10 Period for Grievance Redress

The Grievance Redress Committee will be active to review any grievances received from the time at which PAPs are formally notified.

8.3.11 Internal and External Monitoring

PMO will carry out internal monitoring, and M&EC shall complete external monitoring, from the point at which the ARP is approved until completion of the civil works. Further details are provided in Section 8.4.

Both parties shall monitor the compensation and vacation of PAPs.

8.3.12 Variation Order for Construction of Mosque

The reconstruction of the active mosque situated on the left spur will be managed through the civil works contract, and implemented by the contractor. The PMO will formally instruct the contractor (via PIC) to prepare a costed proposal for the replacement mosque. The proposal, once submitted by the contractor, will be reviewed by PIC and subsequently approved by PMO. Following approval, the contractor will be required to build the new mosque, prior to removal of the existing mosque.

Table 19: Resettlement Plan Implementation Schedule

#	Activity	Responsibility	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18
1	Preparation of ARP	PIC	█									
2	Review and Approval of ARP	PMO/WB		X								
3	Coordinate ARP Implementation	PMO		█	█	█	█	█	█	█	█	█
4	Prevent Encroachment into Col	ID	█	█	█	█	█	█	█	█	█	█
5	Translation and Disclosure of ARP	PMO		X								
6	Notification of PAPs	PMO			█							
7	Open Resettlement Bank Account	PMO			█							
8	Transfer of Funds	ID.			█							
9	Disburse Compensation to PAPs	PMO				█						
10	Vacation of PAPs from Col	ID					█					
11	Period for Grievance Redress	GRC			█	█	█	█	█	█	█	█
12	Internal Monitoring	PMO		█	█	█	█	█	█	█	█	█
13	External Monitoring	M&EC		█	█	█	█	█	█	█	█	█
14	Mobilisation of Contractor	Contractor	█	█								
15	Rehabilitation of Left Spur	Contractor			█	█	█	█	█	█	█	█
16	Rehabilitation of Left J-Spur	Contractor					█	█	█	█	█	█
17	Extension of Left Spur	Contractor									█	█
18	Rehabilitation of Left Guide Bund	Contractor							█	█	█	█
19	Rehabilitation of Right Spur	Contractor										Works commence in July 2018
20	Request Contractor's proposal for construction of mosque	PIC			X							
21	Preparation of proposal	Contractor				█						
22	Prepare Variation Order	PIC					█					
23	Review and approval of Variation Order	PMO						█				
24	Construction of new mosque at Khando Mazari village	Contractor						█				

8.4 Monitoring

The WB requires proper monitoring of implementation of the ARP and reporting on its effectiveness, including the disbursement of compensation, effectiveness of public consultation and participation activities. The objective of monitoring is to provide feedback on implementation of the ARP and to identify problems and successes as early as possible to allow timely adjustment to implementation arrangements. For these reasons, ARP monitoring and evaluation activities should be adequately funded, implemented by qualified specialists and integrated into the overall project management process.

8.4.1 Objectives

The purpose of resettlement monitoring is as follows:

- Ensure that actions and commitments described in the RPF and the ARP are implemented fully and on time;
- Identification of blockers (and subsequently solutions) to the implementation of the RPF and ARP;
- Complaints and grievances lodged by PAPs are followed up and that, where necessary, appropriate corrective actions are taken up and implemented; and
- If necessary, changes in implementation of the ARP are made to improve delivery of entitlements to PAPs.

Monitoring shall be carried out both internally and externally.

8.4.2 Internal Monitoring

Internal monitoring shall be carried out by ESU of PMO. Information will be collected from the sub-project site and assimilated in the form of a monthly progress report to assess the progress and results of implementation of the RP, and adjust the work progress, where necessary, in case of any delays or problems. The report shall be submitted to the Director of PMO.

Specific implementation activities that will be monitored include:

- Information campaign and consultation with PAPs;
- Compensation for affected structures;
- Status of compensation disbursement;
- Status of restoration of livelihood employment opportunities for PAPs;
- Grievances redress activities; and,
- Sub-project employment.

Field offices of PMO will be responsible for monitoring the day-to-day resettlement activities of the sub-project. PMO's Resettlement Specialist will be responsible for the coordination of their monitoring. A performance data sheet will be developed to monitor the sub-project at the field level.

8.4.3 External Monitoring

The M&EC will have environmental and social experts and will carry out intermittent third party monitoring of the implementation of the ARP against the proposed implementation schedule.

The M&EC will be responsible for overall monitoring of the implementation of this ARP, as well as monitoring actions taken in respect to any chance find items or design changes which may alter the resettlement requirements.

M&EC will also be responsible for evaluation of the resettlement activities, which include indicators related to the long-term impacts (effects/benefits) of the project on people’s lives in the sub-project area, including an updated socio-economic assessment, comparison with the baseline socio-economic assessment and an assessment of the socio-economic impact. The evaluation shall also extend to the host communities.

The evaluation of the M&EC shall be in the form of a single final report to be issued to the PMO one year following the completion of civil works on the sub-project. The report shall also include details of any outstanding issues and actions required to resolve such issues. The M&EC shall provide feedback to PMO on the sub-project’s performance and impact so that corrective actions can be taken in a timely manner.

The M&EC will submit bi-annual (six monthly) reports to the PMO, copied to the PCMU. These reports will detail the following:

- Monitoring methodology;
- Monitoring activities;
- Results of monitoring; and,
- Recommendations/proposals.

8.4.4 Monitoring Framework

The indicators to be verified as part of the monitoring activities are detailed in the following table.

Table 20: Monitoring Framework

Aspect	Indicator	Verification
Affected Persons are compensated in a fair and mutually accepted manner for their damages by the project authorities.	The PAPs are correctly identified	List of PAPs in ARP
	Affected structures correctly recorded for compensation	List of PAPs in ARP
	Compensation / assistance for damaged structures is paid based upon replacement cost	Receipts of payments made to PAPs
Reconstruction of mosque at Khando Mazari village	Variation order prepared and approved in a timely manner; Affected structures rebuilt	Implementation schedule; Consultation with community for reconstruction or relocation
Relocation of commercial structure on the right spur	Relocation site prepared prior to removal of commercial structure; Relocation of commercial structure	Consultation with affected owner of commercial structure
Disturbance of local community by migrant labour	Contractor delivers training to migrant labourers on cultural sensitivities	Training delivered as per the contractor’s approved training plan
Grievance Mechanism is in place	Number of grievances received; Time taken for resolving grievances; Number of grievances resolved.	Consultation with PAPs during internal and external monitoring
Resettlement Plan is effectively implemented	Opening of resettlement bank account; Date of notification of PAPS; Date of disbursement of funds; Vacation of PAPs	Implementation schedule

Aspect	Indicator	Verification
Local employment on the construction contract	Number of PAPs employed as unskilled labourers	Contractor's employment records
	Number of PAPs employed as skilled labourers	
	Local unskilled labourers by district	
	Local skilled labourers by district	

8.5 Budget

The budget for the implementation of this ARP is provided in Table 21. The cost will be borne by the ID.

Please refer to Appendix E for a breakdown of cash compensation due by affected household.

Table 21: Implementation Budget

Loss	Application	Entitled Person	Entitlement	Unit	Quantity	Unit Cost (PKR)	Cost (PKR)
A: Cash Compensation to Affected Households							
Privately owned structures	Entire loss	Owner of structure	Compensation for replacement of structures	Affected households	16	Varies (refer to Appendix C)	1,734,240
			Standard transport allowance	Affected households	14	6,000	84,000
			Long-distance transport allowance	Affected households	2	10,000	20,000
Commercial land	Entire loss	PAP without valid title	Alternative government owned site	Affected households	1	-	-
Crops	Loss of planted crops	Owner of affected crops	Compensation for lost crops	Acres	2	56,250	112,500
Income	Loss of trade	Owner of affected business	Livelihood allowance	Affected households	1	42,000	42,000
Sub-Project Direct Impact	Any loss	Vulnerable PAP	Vulnerability allowance	Affected households	14	14,000	196,000
Sub-Total A:							2,188,740
B: Assistance Through Civil Works Contract							
Religious structures	Entire loss	Affected community	Reconstruction of mosque	Number of mosques	1	550,000	550,000
Sub-Total B:							550,000
C: Training							
	Training cost			Lump Sum	-	100,000	100,000
Sub-Total C:							100,000
D: Monitoring and Evaluation							
	Monitoring and Evaluation			Lump Sum		2% of A	43,775.00
	Administrative Costs			Lump Sum	-	3% of A	65,662.00
Sub-Total D:							109,437
D: Contingencies							
	Contingency			Lump Sum	-	10% of A, B, D	284,818
Sub-Total D:							284,818
Grand Total:							3,232,995
Grand Total USD (USD = 105 PKR):							30,790

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A. Survey Questionnaires

A.1 Household Assets Inventory Census Questionnaire

Sr. # _____

ASSETS INVENTORY CENSUS QUESTIONNAIRE

1. LOCATION

2. IDENTIFICATION

2.1 Name of Affected Person: _____ Located at RD: _____

2.2 Father's Name: _____

2.3 Respondent NIC No: _____

2.4 Permanent Address of the Respondent:

Village: _____ Sub-Village _____ Town _____

Tehsil _____ District: _____

2.5 Category of Respondent: (Tick relevant)

1	Resident Land Owner	2	Absentee Land Owner	3	Tenant
4	Business Owner Operator	5	Business Tenant Operator	6	Encroacher
7	Squatter	8	Other (Specify) _____		

3. DETAIL OF AFFECTED PROPERTY

3.1 Type of Affected Property (a) Land (b) Structure (c) Land & Structure

3.2 Offset from the Outer Edge of Existing RoW _____ Ft.

3.3 Located At (RS / LS) _____

3.4 In case of affected land provide following details:

Type of Land	Total Land Owned Acres (with in and outside this village)	Affected Land	
		Width (ft.)	Length (ft.)
a) Agriculture			
b) Commercial			
c) Residential			
d) Grazing Land			
e) Forest Land			
f) Wetland			
g) Others (specify)			

3.5 If Structure, specify category of Structure: (tick relevant)

(a).Commercial_____ (b).Residential_____ (c).Otaq_____

3.6 Information about Commercial Structures:

Structure	Size (ft)		Type of structure (codes)			Estimated cost (Rs.)	Year of construction	Affected structures (ft.)	Ownership documents Yes-----No---
	W	L	Roof	Wall	Floor				
Shop									
Cabin									
Otaq									
Other									

3.7 Information About Residential Structure:

Structure	Sr. No	Size (ft)		Type of Structure			Estimated cost (Rs.)	Year of construction	Similar const. cost at present (Rs.)	Affected Structures (ft) (WxL)	Ownership Status
		W	L	Roof	Wall	Floor					
Living Rooms	1										
	2										
	3										
	4										
Kitchen	1										
	2										
Bathroom/ Latrine	1										
	2										
Shed (Animal)	1										
	2										
Other	1										
	2										

Types of Structures (codes)

Walls: 1= Bricks + Cement + Cement Plaster 2= Bricks+Cement+Mud Plaster 3= Bricks+Mud+Mud Plaster 4= Mud Masonry

Roofs: 1= RCC 2= RBC 3= Tiles+T.Irons+Girders 4= Tiles+Wooden Planks 5= Asbestos/ Iron Sheets 6= Mud+Wood 7=Mud+Thatched

Floors: 1= Mosaic 2= Concrete with Plaster 3= Bricks+ Cement 4= Mud

3.8 Details about Shareholders, if any:

Sr.No.	Name	Relationship with Respondent	Share in % age	Document Available (Yes/No)
1.				
2.				
3.				
4.				
5.				

3.9 Details about Affected Crops:

Sr. No.	Crops	Area Acres		Production (Kgs)	Total Costs (Rs.)	Qty Sold (Kgs)	Price (Rs./40Kgs)
1.							
2.							
3.							
4.							
5.							

3.10 Details about other Affected Assets

Type of Asset	No.	Value (Rs.)	When Purchased / Installed (No. of Yrs.)
Peter Engine			
Hand Pump/Donkey Pump			
Electric Motor			
Tube Well			
Lined Watercourse			
Rain Drain Pump			
Other (specify)			

4. IN CASE OF TENANT

4.1 Name of Owner: _____ Name of Occupation / Business _____

Av. Monthly Income (Rs.) _____ Av. Monthly Rent (Rs.) _____

4.2 Type of Tenancy a) Residential b) Commercial c) Agriculture Land

4.3 For how long you are at tenancy: Month _____ Year _____

4.4 Have you made any investment: Yes _____ No _____

4.5 If yes, Provide following details:

Structure	Size (ft)		Estimated Cost (Rs.)	Year of Construction	Cost for Similar Replacement (Rs.)
	W	L			
House (Rooms)					
Shop					
Cabin					
Other (specify)					

5. COMMENTS/ OBSERVATIONS

5.1 General Remarks of the Respondents

5.2 Pressing Needs of the Respondent:

5.3 General Observations of Interviewers

Name of Interviewer: _____
_____/_____/_____

Dated:

A.2 Household Socio-Economic and Poverty Assessment Baseline Survey

S. No. _____

IDENTIFICATION

1.1 Name of Respondent _____ 1.2 Father's Name _____

1.3 Respondent NIC No: _____

1.4 Permanent Address of the Respondent:

Village: _____ Town _____ Tehsil _____
 District: _____

1.5 Located At: _____

1.6 Category of Respondent: (Tick relevant)

1	Resident Land Owner	2	Absentee Land Owner	3	Tenant
4	Business Owner Operator	5	Business Tenant Operator	6	Encroacher
7	Squatter/ Informal Settlers	8	Other (Specify) _____	9	

1.7 Demographic Profile of Respondent (Children up to 10 yrs (#): M____, FM ____=T_____)

Sr. No.	Name	Relationship with Respondent (See codes)	Sex Male=1 Female=2	Age (Yrs.)	Education (See Codes)	Income Earned (Y/N)
1		SELF				
2						
3						
4						
5						
6						
7						
8						
9						
10						

1.8 Languages Spoken in Household _____

Demographic Codes:

- a) Relationship:1=Self, 2=Wife, 3=Son, 4=Daughter, 5=Father, 6=Mother, 7=Brother, 8=Sister, 9=Grand Father, 10=Grand Mother, 11=Sister in Law, 12=Nephew, 13=Father -in-Law, 14=Mother- in- Law, 15=Niece, 16=Uncle, 17=Aunt, 18=Others
- b) Sex:1=Male, 2=Female
- c) Education:1= Primary 2= Middle 3= Matric, 4= Intermediate, 5= BA/BSc, 6= MA/MSc, 7=LLB, 8=Engineer, 9=MBBS, 10=Technical Diploma, 11=Dars-e-Nizami, 12=CanRead Quran, 13= Can Insert Signatures, 14= Illiterate
- d) Health Condition1=Good, 2=Average, 3=Poor

2. Income

S.No:	Income Source	permanent	Employment Status	Name of Business or Employer	Location of Income Source	Method of Travel Time to Income Source	Travel Time to Income Source	Numbers of Household Members involved	
								Male	Female

Example:

Income Source: Agriculture, Livestock, Construction, Government, Private etc.

Type: Permanent, Temporary, Seasonal & Daily Wages

Employment Status: Farm Owner, Business Owner, Business Employer, Trader & Tenant.

Name of Business / Employer: Self Employed, Landlord xyz, Guddu Power Plan, Irrigation Department etc.

3. Source of Transport

DISTANCE OF VILLAGE FROM ROAD / TRACK: _____ KMs

AVAILABILITY OF TRANSPORT IN THE VILLAGE?

13.1 Public Transport Yes _____ No _____

13.2 Private Transport Yes _____ No _____

4. Agriculture

4.1 Agricultural Implements

Sr. No.	Items	Nos.	Year of Purchase	Present Value
1	Tractor			
2	Fodder Cutter			
3	Seed Drill			
4	Reaper Machine			
5	Thresher			
6	Spray Pump			
7	Scraper			
8	Others			

4.2 LAND UTILIZATION

Land	Acres	Kanal	Marla
Total Area owned			
Total Cultivated Area			
a. Area Under Rabi (winter) Crops			
b. Area Under Kharif (summer) Crops			
Uncultivated Area			

4.3 Cropping Pattern, Yield and Cost

Code	Crops	Area Sown		Production (Kgs)	Total costs incurred (Rs.)	Price (Rs/40kg)
		Acres	Kanal			
1	Rice					
2	Sugarcane					
3	Cotton					
4	Maize					
5	Millets					
6	Potato					
7	Fodder (kharif)					
8	Vegetables(kharif)					
9	Barley					
10	Wheat					
11	Oilseed					
12	Fodder (Rabi)					
13	Vegetables(Rabi)					
14	Orchards					
15	Other					

4.4 Source of Irrigation

1. Canal 2. Tube well 3. Canal + Tube well 4. Lift Irrigation 5. Barani 6. Other. _____

4.5 Prevalent Land Rate

Residential _____ Agriculture Land _____
 Cultivable Waste _____ Other _____

4.6 Land Rent (Rs./ Year) _____

4.7 Tube well Water (Rs./Hr.) _____

5. POSSESSION OF HOUSEHOLD ITEMS

Item	No	Value (Rs.)	Item	No	Value (Rs.)
Refrigerator			Van/Pickup		
Deep Freezer			Gas Cylinder		
Television			VCR		
Electric Fan			Telephone/PTCL		
Electric Iron			Mobile		
Radio/Tape Recorder			Electric Water Pump		
Bicycle			Computer		
Motor Cycle/Scooter			Air Cooler		
Car			Other		

6. AVERAGE MONTHLY EXPENDITURE ON FOOD AND NON- FOOD ITEMS (RS.)

a. Food Items	Expenses	b. Non-Food Items	Expenses
Meat		Bath Soap	
Ghee		Washing Soap	
Sugar		Gas Cylinder	
Flour		Fuel Wood	
Legumes		Kerosene Oil	
Vegetables		Other	
Species			
Tea Leaves			
Others			

c. Estimated Monthly Expenditure

1. Kitchen _____ 2. Others _____

7. ACCESS TO SOCIAL AMENITIES (TICK)

Social Amenities	Available	Satisfactory	Non-Satisfactory	No Access
Electricity				
Gas				
Water Supply				
Telephone				
Sewerage/Drainage				
BHU				
School				

8. LIVESTOCK INVENTORY

Livestock	No.	Present Value (Rs.)
Buffaloes		
Cows		
Horse		
Donkey		
Camel		
Sheep/Goat		
Poultry		
Other		

9. WOMEN’S PARTICIPATION AND ROLE IN DIFFERENT HOUSEHOLD ACTIVITIES

9.1 Participation and Decision Making (Tick):

Activities	Participation Extent (%)	Decision Making Extent (%)
Household activities		
Child caring		
Farm/Crop activities		
Livestock rearing		
Sale & Purchase of properties		
Social obligations (marriage, birthday & other functions)		
Local representation (councilor/political gathering)		

10. PERCEPTION OF RESPONDENT FOR ACTION ASSOCIATED WITH THE PROJECT

Possible impacts/effects of the Project	1	Increase	2	Decrease
--	----------	-----------------	----------	-----------------

Employment opportunities		
Industrial Development Opportunities		
Living standard		
Unemployment		
Income generating activities		
Electricity Supply Quality		
Mobility (Access to Resources)		
Other specify		

11. Does any NGO / FO Exist in your Area?

Yes _____ No _____

If yes, Name of NGO _____

Are you member of this NGO _____

Are you member of this NGO _____

Role of NGO _____

12. Details of sharecropper agreement

IN CASE OF TENANT

12.1 Name of Owner: _____ Name of Occupation / Business _____

Av. Monthly Income (Rs.) _____ Av. Monthly Rent (Rs.) _____

12.2 Type of Tenancy a) Residential b) Commercial c) Agriculture Land

12.3 For how long you are at tenancy: Month _____ Year _____

12.4 Have you made any investment: Yes _____ No _____

12.5 If yes, Provide following details:

13. Tenant Share in Crop Inputs

Crop	Farm Inputs						
	Seed	Fertilizer	Ploughing	Sowing	Harvesting	Transport	Other
Sugarcane							
Cotton							
Wheat							
Rice							
Fodder							
Pulses							
Others							

B. Details of Survey and Consultation Participants

The following ID officials participated in field work as part of the preparation of the ARP:

Table 22: Details of ID Official Participating in Field Work Activities

#	Name	Designation	Organization	Contact No.
1	Dr. Ali Asghar Mahesar	Deputy Director Environmental	PMO	0301-3561195
2	Abdul Ghafar Soomro	Deputy Director Resettlement	PMO	0333-7364050
3	Mr: Shahnawaz Bhutto	Executive Engineer	ID	03363118895
4	Azhar Ali Bhutto	AEN River Training	ID	-
5	Mr: Nazir Ahmed Shahani	Assistant Engineer	ID	03463394836
6	Mr: Jabir Hussain	Surveyor	ID	-
7	Mr: Mohammad Ali Khoao	Surveyor	ID	03332023403
8	Mr: Ghulam Yaseen	Darogha	ID	03113607304
9	Mr: Abdul Malik	Darogha	ID	-
10	Mr: Sikandar	Darogha	ID	03342523528
11	Mr: Ali Nawaz Mazari	Darogha	ID	03343435070

C. Details of Project Affected Persons and Assets

Table 23: Poverty Status of Project Affected Households

Ref	Head of Affected Household	Fathers Name	Deh/ Village	Taluka	District	CNIC	Profession	Monthly Income (PKR)	Family Size	Per Capita Income (PKR)	Poverty Status Above/ Below
Left Spur											
LS1	Sijawal Mazari	Imam Bux	Paro Khan	Ubaro	Ghotki	31304-9986542-7	Farming	4,167	8	521	B
LS2	Abid Hussain	Allah Geo		Ubaro	Ghotki	31304-2491301-3	Farming	5,833	11	530	B
LS3	Sanwan	Sohbat Ali		Ubaro	Ghotki		Farming	5,000	8	625	B
LS4	Mohammad Afzal	Rozi	Khando	Kashmore	Kandhkot	31304-2065317-5	Farming	62,500	13	4,807	A
LS5	M.Ayoub	Rozi	Khando	Kashmore	Kandhkot		Farming	35,000	9	3,889	A
Total									49		
Left-J-Spur											
LJS1	Ghulam Qadir	Ali Moham mad		Sadiqabad	Rahim Yar Khan	32404-8886951-1	General Labour	7,000	11	636	B
LJS2	Morzada	Shahmur ad		Sadiqabad	Rahim Yar Khan	43504-0344528-5	General Labour	7,500	5	1,500	B
LJS3	Mustafa	Giyandar		Sadiqabad	Rahim Yar Khan	32464-5175937-7	General Labour	6,250	7	893	B

Ref	Head of Affected Household	Fathers Name	Deh/ Village	Taluka	District	CNIC	Profession	Monthly Income (PKR)	Family Size	Per Capita Income (PKR)	Poverty Status Above/ Below
LJS4	Wazir Hussain	Giyandar		Sadiqabad	Rahim Yar Khan	32404-5804592-9	General Labour	6,667	12	556	B
LJS5	Ghani Khan	M.Bux		Sadiqabad	Rahim Yar Khan	32404-4328052-1	General Labour	6,250	6	1,042	B
Total									41		
Left Spur Extension											
LSE1	Long Malik	Moham mad Bux		Rojhan Mazari	Rajan pur		Farming	6,667	9	741	B
Total									9		
Right Spur											
RS1	Ahmed Bux Mazari	Sher Khan		Rojhan Mazari	Rajan Pur	32404-2854744-1	Small Business	8,333	5	1,667	B
Total									5		
Left Guide Bank											
LGB1	Nasir Ahmed	Mureed Ahmed		Kashmore	Kandhkot	43504-0362121-5	Fishing	6,667	10	667	B
LGB2	Ali Sher Meerani			Kashmore	Kandhkot		Fishing	8,333	4	2,083	B
LGB3	Farman Ali	Pir Bux Mazari		Ubaro	Ghotki		Farming	8,333	5	1,667	B
LGB4	Pir Bux	Boohar Mazari		Ubaro	Ghotki		Farming	10,000	10	1,000	B
Total									29		
Grand Total									133		

Source: Survey of PAPs, PIC, June 2017

Table 24: Details of Affected Structures and Compensation Costs

Ref	Head of Affected Household	Chainage (ft)	Coordinates	Name of Structure	Type of structure	Type of Construction	Size of Structure (ft ² /ft)	Unit Rate (PKR)	Total Cost of Structure (PKR)	
Left Spur										
LS1	Sijawal Mazari	10,200	N; 28°25'12.8" E: 069°44'56.9"	House	Room	Kacha	224	180	40,320	
					Room	Straw	196	100	19,600	
					B/W	Kacha	200	336	67,200	
					Hand Pump			8,000	8,000	
					Otaq	Room	Straw	224	100	22,400
					Hand Pump			8,000	8,000	
LS2	Abid Hussain	10,200	N; 28°25'16.0"	House	Room	Kacha	224	180	40,320	
					Room	Straw	144	100	14,400	
LS3	Sanwan	10,200	N; 28°25'18.3" E: 069°44'55.6"	House	Room	Kacha	252	180	45,360	
LS4	Mohammad Afzal	11500 To 12000	N; 28°25'31.1" E: 069°44'56.9"	House	Room	Kacha	420	180	75,600	
					Room	Kacha	280	180	50,400	
					Animal Shed	Straw	196	100	19,600	
LS5	M.Ayoub	11500 To 12000	N; 28°25'30.5" E: 069°44'56.4"	House	Room	Kacha	364	180	65,520	
					Animal Shed	Kacha	196	150	29,400	
Total									506,120	
Left-J-Spur										
LJS1	Ghulam Qadir	5000 To 5944	N; 28°25'44.5" E: 069°45'34.9"	House	Room	Kacha	364	180	65,520	
					B/W	Kacha	120	336	40,320	
LJS2	Morzada	5000 To 5944	N; 28°25'45.2" E: 069°45'34.6"	House	Room	Kacha	192	180	34,560	
LJS3	Mustafa	5000 To 5944	N; 28°25'45.7" E: 069°45'34.0"	House	Room	Kacha	224	180	40,320	
LJS4	Wazir Hussain	5000 To 5944	N; 28°25'46.7" E: 069°45'32.4"	House	Room	Kacha	224	180	40,320	
LJS5	Ghani Khan	5000 To 5944	N; 28°25'45.8" E: 069°45'32.1"	House	Room	Kacha	216	180	38,880	
Total									259,920	

Ref	Head of Affected Household	Chainage (ft)	Coordinates	Name of Structure	Type of structure	Type of Construction	Size of Structure (ft ² /ft)	Unit Rate (PKR)	Total Cost of Structure (PKR)
Left Spur Extension									
LSE1	Long Malik	1300	N; 28°25'49.6" E: 069°44'58.9"	House	Room	Kacha	224	180	40,320
					Room	Kacha	168	180	30,240
					Room	Semi Pacca	420	630	264,600
					Hand Pump			8,000	8,000
Total								343,160	
Right Spur									
RS1	Ahmed Bux Mazari	6600	N; 28°27'16.4" E: 069°42'32.0"	Shop	Room	Semi Pacca	168	630	105,840
				Store (Shop)	Room	Semi Pacca	168	630	105,840
Total								211,680	
Left Guide Bank									
LGB1	Nasir Ahmed	-700	N; 28°24'46.2" E: 069°42'59.6"	House	Room	Kacha	280	180	50,400
LGB2	Ali Sher Meerani	7800	N; 28°25'20.3" E: 069°44'08.9"	House	Room	Kacha	360	180	64,800
LGB3	Farman Ali	7800	N; 28°25'14.6" E: 069°44'20.0"	House	Room	Kacha	400	180	72,000
				Otaq	Room	Kacha	252	180	45,360
				Hand Pump	Hand Pump			8,000	8,000
LGB4	Pir Bux	7800	N; 28°25'11.9" E: 069°44'21.7"	House	Room	Kacha	960	180	172,800
Total								413,360	
Grand Total								1,734,240	

Source: Survey of PAPs, PIC, June 2017

Table 25: Details of Abandoned Structures in Col

Name of Structure	Chainage (ft)	Coordinates	Type of structure	Type of Construction	Size of Structure (ft ² /ft)
Left Spur					
House	10,200	N: 28°25'12.8" E: 069°44'56.9"	Room	Kacha	168
Otaq Wall	11500 To 12000	N: 28°25'27.2" E: 069°44'56.8"	Wall	Kacha	280
Left-J-Spur					
Otaq	5000 To 5944	N: 28°25'42.2" E: 069°45'35.2"	Room Otaq	Kacha	216
Left Spur Extension					
House Wall only	1300	N: 28°25'48.0" E: 069°44'58.4"	Wall	Kacha	120
Abandoned Mosque	11500 To 12000	N: 28°25'28.2" E: 069°44'56.3"	Room	Semi Pacca	196
Right Spur					
Store	6,000	N: 28°28'18.8" E: 069°42'26.1"	Room	Kacha	280
Otaq	6,500	N: 28°27'16.7" E: 069°42'31.9"	Room	Kacha	144
Store			Room	Kacha	168
Wall		N: 28°27'08.9" E: 069°42'58.5"	Wall	Kacha	700
Wall		N: 28°27'08.3" E: 069°43'02.5"	Wall	Straw (Bushes)	0
Left Guide Bank					
House	7800	N: 28°25'16.9" E: 069°44'16.9"	Room	Kacha	168

Source: Survey of PAPs, PIC, June 2017

D. Details of Asset Valuation

D.1 Detail of market Rates for Pacca House

PACCA HOME					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Bricks	11,305	No	6.00	67,828.32
2	Ceiling Bricks	607	No	10.00	6,072.00
3	Cement bags	98.77	Bags	650.00	64,197.53
4	Fine Sand	468.71	Cft	25.00	11,717.64
5	Course Sand	380.75	Cft	42.00	15,991.55
6	Plastic Sheet	36.375	Sq.Yard	13.50	491.06
7	Distemper	1,670.50	SFT	3.50	5,846.75
8	Iron Grider	35.75	Rft	215.00	7,686.25
9	Iron Tee	299.00	Rft	69.00	20,631.00
10	Steel Door (3.5' x 6')	21.00	SFT	190.00	3,990.00
11	Steel Window (4' x 4')	16.00	SFT	162.00	2,592.00
12	Steel ventilator (1' x 2')	4.00	SFT	150.00	600.00
13	Water Spout	2	No	300.00	600.00
Total Material Rate					208,244.10

Labour / Equipment					
S.no	Description	Qty	Unit	Hire Charges	Amount (rs)
1	Mason	1	12.00 day	1,000.00	12,000.00
2	Skilled Labour	1	12.00 day	700.00	8,400.00
2	Un-Skilled Labour	2	18.00 day	500.00	18,000.00
3	Cooli	1	18.00 day	380.00	6,840.00
4	Wheel barrow	1	15.00 day	50.00	750.00
5	Scaffolding		L.S		3,000.00
6	Carriage		L.S		17,000.00
Total Labour/ Material Charges					65,990.00

	Total Cost of One Pacca Home	274,234.10
	Total Covered Area Sft	295.75
	Rate Per Sft	927.25
	Say	930.00

D.2 Detail of market Rates for Semi Pacca House

SEMI PACCA HOME

Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Bricks	11,305	No	6.00	67,828.32
3	Cement bags	59.46	Bags	650.00	38,651.71
4	Fine Sand	272.20	Cft	25.00	6,804.98
5	Coarse Sand	175.95	Cft	42.00	7,389.83
6	Supply of Mud (Trolley)	2	No	700.00	1,400.00
7	Wheat Straw (Bou)	3.00		250.00	750.00
8	Iron Grider	35.75	Rft	200.00	7,150.00
9	Bamboo	280.00	Rft	16.00	4,480.00
9	Kiri	288.00	Sft	13.00	3,744.00
10	Bushes	312.00	Sft	7.00	2,184.00
11	Plastic Sheet	34.7	Sq.Yard	13.50	468.00
12	Steel Door (3.5' x 6.5')	22.75	SFT	190.00	4,322.50
13	Steel Window (4' x 4')	16.00	SFT	162.00	2,592.00
14	Steel ventilator (1' x 2')	2.00	SFT	150.00	300.00
Total Material Rate					148,065.34

Labour / Equipment					
S.no	Description	Qty	Unit	Hire Charges	Amount (rs)
1	Masson	1	10.00 day	1,000.00	10,000.00
2	Skilled Labour	1	14.00 day	700.00	9,800.00
3	Unskilled	1	16.00 day	500.00	8,000.00
4	Cooli	1	3.00 day	380.00	1,140.00
5	Wheel barrow	1	14.00 day	50.00	700.00
6	Scaffolding		L.S		4,000.00
7	Carriage		L.S		15,000.00
Total Labour/ Material Charges					48,640.00

Total Cost of One Semi Pacca House	196,705.34
Total Covered Area Sft	312.00
Rate Per Sft	630.47
Say	630.00

D.3 Detail of market Rates for Kacha House

KACHA HOME					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	kacha Walls	966	Sft	12.00	11,592.00
2	Supply of Mud (Trolley)	2	No	700.00	1,400.00
3	Wheat Straw (Bou)	5.00	40 kg	250.00	1,250.00
4	Stem	26.00	Rft	95.00	2,470.00
5	Bamboo	280.00	Rft	16.00	4,480.00
6	Kiri	288.00	Sft	13.00	3,744.00
7	Bushes	312.00	Sft	7.00	2,184.00
8	Plastic Sheet	34.7	Sq. Yard	13.50	468.00
9	Wooden Door (3.5' x 6')	1.00	Lum Sum	2,500.00	2,500.00
10	Wooden Window (4' x 4')	1.00	Lum Sum	2,000.00	2,000.00
11	Wooden ventilator (1' x 2')	1.00	Lum Sum	300.00	300.00
Total Material Rate					32,388.00
Labour / Equipment					
S.no	Description	Qty	Unit	Hiring Charges	Amount (rs)
1	Masson	1	3.00 day	1,000.00	3,000.00
2	Skilled Labour	1	3.00 day	700.00	2,100.00
3	Unskilled	1	6.00 day	500.00	3,000.00
4	Cooli	1	2.00 day	380.00	760.00
5	Wheel barrow	1	3.00 day	50.00	150.00
6	Hiring Charges of equipments		L.S		2,000.00
7	Carriage		L.S		3,000.00
Total Labour/ Material Charges					14,010.00
Total Cost of One Kacha House					46,398.00
Total Covered Area Sft					260.00
Rate Per Sft					178.45
Say					180.00

D.4 Detail of market Rates for Semi Pacca Boundary Wall

Semi Pacca Boundary Wall (unit = one Rft) (New Structure)					
Material					
S.no	Description	Qty	Unit	Av: market Rates	Amount (Rs)
1	Bricks	65.813	No	6.00	394.88
2	Cement bags	0.071	Bags	650.00	46.20
3	Fine Sand	0.355	Cft	25.00	8.88
4	Course Sand	0.711	Cft	42.00	29.85
5	Mud		L.S	20.00	20.00
Total Material Rate					499.81
Labour / Equipment					
S.no	Description	Qty	Unit	Hire Charges	Amount (rs)
1	Mason	1	0.10per day	1,000.00	100.00
2	Skilled Labour	1	0.10per day	700.00	70.00
3	Cooli	1	0.10per day	380.00	38.00
4	Wheel barrow	1	0.10per day	50.00	5.00
Total Labour/ Material Charges					213.00
Total Cost of Boundary Wall per RFT					712.81
Say					710.00

D.5 Detail of market Rates for Kacha Boundary Wall

Kacha Boundary Wall (unit = one Rft)					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Kacha Wall	6.13	Sft	12.00	73.50
2	Wheat Straw		L.S	30.00	30.00
3	Mud		L.S	20.00	20.00
Total Material Rate					123.50
Labour / Equipment					
S.no	Description	Qty	Unit	Hire Charges	Amount (rs)
1	Mason	1	0.10per day	1,000.00	100.00
2	Skilled Labour	1	0.10per day	700.00	70.00
3	Cooli	1	0.10per day	380.00	38.00
4	Wheel barrow	1	0.10per day	50.00	5.00
Total Labour/ Material Charges					213.00
Total Cost of Boundary Wall per RFT					336.50
Say					336.00

D.6 Detail of market Rates for Pacca Boundary Wall

Pacca Boundary Wall (unit = one Rft)					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Bricks	65.81	No	6.00	394.88
2	Cement bags	0.46	Bags	650.00	297.55
3	Fine Sand	2.14261378	Cft	25.00	53.57
4	Course Sand	0.71076923	Cft	42.00	29.85
Total Material Rate					775.84
Labour / Equipment					
S.no	Description	Qty	Unit	Hire Charges	Amount (Rs)
1	Mason	1	0.10per day	1,000.00	100.00
2	Skilled Labour	2	0.10per day	700.00	140.00
3	Un skilled Coolii	1	0.20per day	380.00	76.00
4	Wheel barrow	1	0.10per day	50.00	5.00
Total Labour/ Material Charges					321.00
Total Cost of Boundary Wall per RFT					1,096.84
					Say 1,097.00

D.7 Detail of market Rates for Kacha Hut

KACHA HUT (10' x 12')					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Kacha Walls	462	Sft	12.00	5,544.00
2	Supply of Mud (Trolley)	1	No	700.00	700.00
3	Wheat Straw (Bou)	2.00	40 kg	250.00	500.00
4	Stem	12.00	Rft	95.00	1,140.00
5	Bamboo	132.00	Rft	16.00	2,112.00
6	Kiri	132.00	Sft	13.00	1,716.00
7	Bushes	132.00	Sft	-	-
8	Plastic Sheet	13.3	Sq.Yard	13.50	180.00
9	Rope	20.0	Kg	130.00	2,600.00
Total Material Rate					14,492.00
Labour / Equipment					
S.no	Description	Qty	Unit	Hiring Charges	Amount (rs)
1	Skilled Labour	1	2.00 day	700.00	1,400.00
2	Unskilled	1	2.00 day	500.00	1,000.00
3	Carriage		L.S		1,200.00
Total Labour/ Material Charges					3,600.00
Total Cost of One Kacha House					18,092.00
Total Covered Area Sft					120.00
Rate Per Sft					150.77
Say					150.00

D.8 Detail of market Rates for Straw Hut

STRAW HUT (12' x 10')					
Material					
S.no	Description	Qty	Unit	Av: Market Rates	Amount (Rs)
1	Stem	56.00	Rft	65.00	3,640.00
2	Bamboo	36.00	Rft	16.00	576.00
3	Weeds	120.00	Sft	-	-
4	Bushes	120.00	Sft	7.00	840.00
5	Rope	20.00	Kg	100.00	2,000.00
Total Material Rate					7,056.00

Labour / Equipment					
S.no	Description	Qty	Unit	Hiring Charges	Amount (rs)
1	Skilled Labour	1	2.00 day	700.00	1,400.00
2	Unskilled	1	4.00 day	500.00	2,000.00
3	Carriage		L.S		1,500.00
Total Labour/ Material Charges					4,900.00

Total Cost of One Kacha House		11,956.00
Total Covered Area Sft		120.00
Rate Per Sft		99.63
Say		100.00

D.9 Market Quotations

(برائے پبلٹی)
بٹالہ سٹیل ری رولنگ ملز (پرائیویٹ) لمیٹڈ
 13-06-17

55 فی فوٹ
 64
 69

7x4 2x4
 8x4 2x4
 8x4 2x4

صرف اینٹ
 1/10 فی فوٹ

UAN: 042-111-228-252 Fax: 042-37287959

0333-7368617

0300 = 4278725
 Original 56
 M/s/ عبدالقادر ریسٹیل ملز Date 13-6-2017
 0333 17448862
 کسٹمر لوڈنگ فی ٹریلر 5500
 کسٹمر لوڈنگ فی ٹریلر 6000
 رقم بارخانہ ایفیل 7500
 رقم بارخانہ اوول 6500
 صریر شاخ ایفیل ڈبل 6200
 فی 1/10 قیمت کرائی لوڈنگ 10000

امیر مزہ آهن سٹول ایڈیشن اسٹیل ملز

0347 7186046 0305 7079610
 7186046 اسٹیل ملز اسلام آباد
 ہمارے ہاں گاڑو، پائس، جینز، سٹیڈی، جینز، گورنر، پلاسٹک، اور وائے و ڈی و ہاڑے اور عمارت خریدیں۔
 اسلام آباد 0307-3478653 تاریخ 13/06/17

رقم	وزن	تفصیل	تعداد
	700	70 J	
	1000	80 J 8	
	1100	80 J 20	
	16 F	ہاٹ رولنگ	
	13	ہاٹ رولنگ	
	680	ہاٹ رولنگ	
	64	8000	
	58	9000	
	200-195	کڑو (6/10)	
	240	ہاٹ رولنگ	
	6	آپ کا ادنیٰ ہاری کا سامانی	

اگر آپ مطمئن ہیں تو ادویں کو بتائیں اگر آپ مطمئن نہیں ہیں تو ہمیں بتائیں۔
 نوٹ: خریدی ہوئی ادویں یا تبدیلیں نہ ہوں گی۔

E. Cash Compensation due to Affected Households

Table 26: Cash Compensation and Allowances by Household

Ref	Comp. for Structures (PKR) ¹⁵	Standard Transport Allowance (PKR)	Long-Distance Transport Allowance (PKR)	Crop Comp. (PKR)	Livelihood Allowance (PKR)	Vulnerability Allowance (PKR)	Total Cash Comp. (PKR)
Left Spur							
LS1	165,520	6,000	-	-	-	14,000	185,520
LS2	54,720	6,000	-	-	-	14,000	74,720
LS3	45,360	6,000	-	-	-	14,000	65,360
LS4	145,600	6,000	-	-	-	-	151,600
LS5	94,920	6,000	-	-	-	-	100,920
Total	506,120	30,000	-	-	-	42,000	578,120
Left-J-Spur							
LJS1	105,840	6,000	-	-	-	14,000	125,840
LJS2	34,560	6,000	-	-	-	14,000	54,560
LJS3	40,320	6,000	-	-	-	14,000	60,320
LJS4	40,320	6,000	-	-	-	14,000	60,320
LJS5	38,880	6,000	-	-	-	14,000	58,880
Total	259,920	30,000	-	-	-	70,000	359,920
Left Spur Extension							
LSE1	343,160	6,000	-	112,500	-	14,000	475,660
Total	343,160	6,000	-	112,500	-	14,000	475,660
Right Spur							
RS1	211,680	6,000	-	-	42,000	14,000	273,680
Total	211,680	6,000	-	-	42,000	14,000	273,680
Left Guide Bank							
LGB1	50,400	6,000	-	-	-	14,000	70,400
LGB2	64,800	6,000	-	-	-	14,000	84,800
LGB3	125,360	-	10,000	-	-	14,000	149,360
LGB4	172,800	-	10,000	-	-	14,000	196,800
Total	413,360	12,000	20,000	-	-	56,000	501,360
Grand Total	1,734,240	84,000	20,000	112,500	42,000	196,000	2,188,740

¹⁵ Refer to Table 24 for breakdown of structure compensation

