



PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY

DASU HYDROPOWER PROJECT

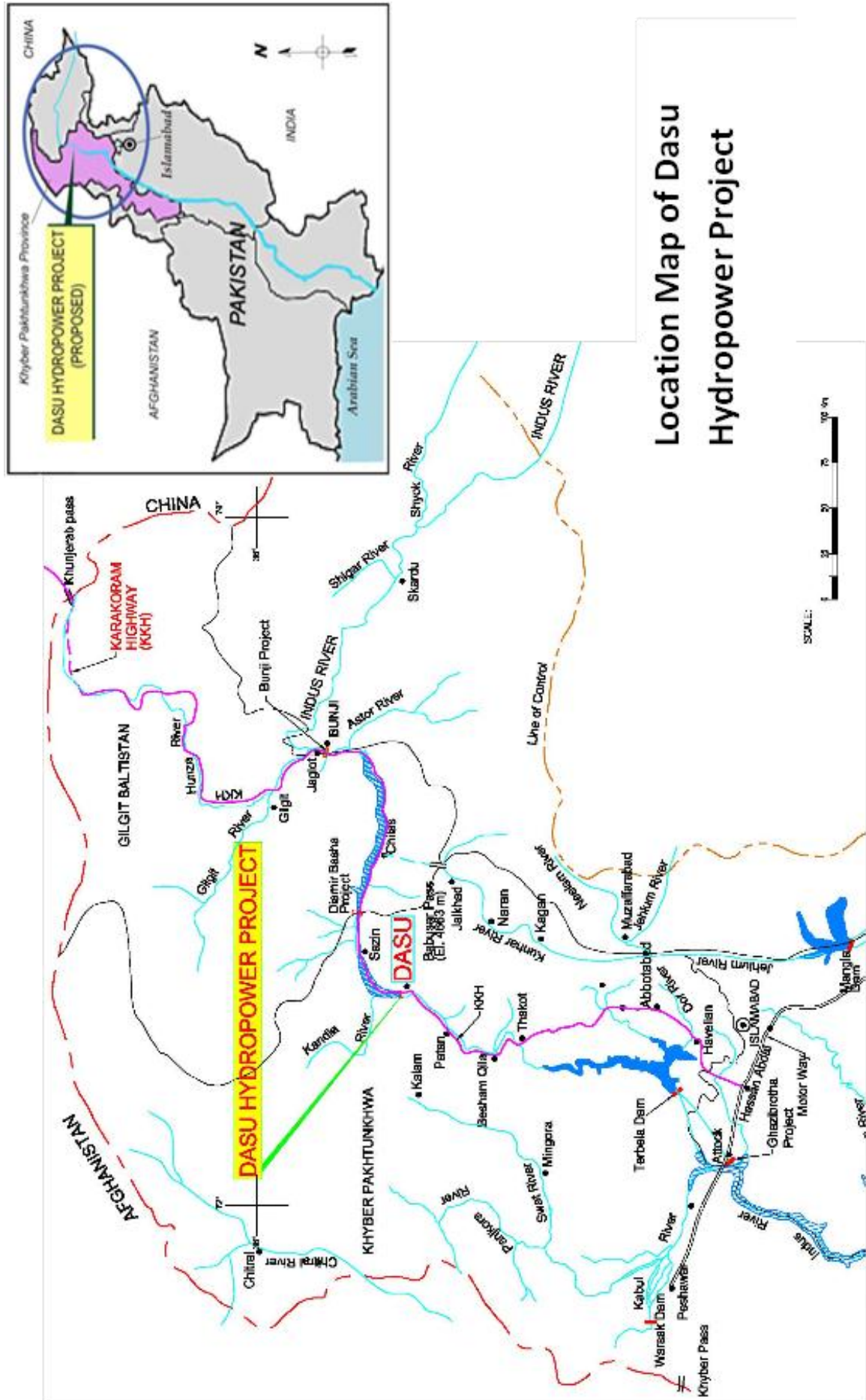


SOCIAL AND RESETTLEMENT MANAGEMENT PLAN

VOLUME 5: RESETTLEMENT ACTION PLAN

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SOCIAL AND RESETTLEMENT MANAGEMENT PLAN

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ABBREVIATIONS

AAC	Additional Assistant Commissioner
AAM	Alternative Analysis Matrix
AH	Affected Household
CSC	Construction Supervision Consultants
C&W	Communication and Works Department of KPK
DC	Deputy Commissioner/Administrative Head of District
DD	Deputy Director
DHC	Dasu Hydropower Consultants
DMS	Detailed Measurement Survey
DPD	Deputy Project Director
EIA	Environmental Impact Assessment
EP	Entitled Person
EPA	Environmental Protection Agency
FGD	Focus Group Discussion
FHH	Female Headed Household
FRL	Full Reservoir Level
GAP	Gender Action Plan
GBHP	Ghazi Barotha Hydropower Project
GOP	Government of Islamic Republic of Pakistan
GRC	Grievance Redress Committee
GRP	Grievance Redress Plan
ICOLD	International Commission on Large Dams
IOL	Inventory of Losses
ILRP	Income and Livelihood Restoration Plan
KKH	Karakoram Highway
KPK	Khyber Pakhtunkhwa
LA	Land Acquisition
LAA	Land Acquisition Act
LAP	Land Acquisition Plan
LAR	Land Acquisition and Resettlement
LGO	Local Government Ordinance
LHV	Lady Health Visitors
LRW	Local Resettlement Workers
M&E	Monitoring and Evaluation
MDP	Mangla Dam Project
MDRP	Mangla Dam Raising Project
MIS	Management Information System
MOWP	Ministry of Water and Power
MPCI	Management Plan for Constructed-related Impacts
MPR	Monthly Progress Report
NARC	National Agriculture and Research Centre
NGO	Non- Governmental Organization
NRSP	National Rural Support Program
OP	Operational Policy
PAP	Project Affected Person
PATA/FATA	Provincially/Federally Administered Tribal Area
PCPP	Public Consultation and Participatory Plan
PCR	Physical Cultural Resources
PD	Project Director
PIC	Project Information Center
PKR	Pakistani Rupee
PMF	Probable Maximum Flood
IPOE	International Panel of Expert
PRO	Project Resettlement Office
PHAP	Public Health Action Plan
PMU	Project Management Unit headed by Project Director
PRA	Participatory Rapid Appraisal
RAP	Resettlement Action Plan
RCC	Roller Compact Concrete

RMU	Resettlement Monitoring Unit
R&R	Resettlement and Rehabilitation
SDF	Social Development Fund
SPT	Social Preparation Team
SRMP	Social and Resettlement Management Plan
TDP	Tarbela Dam Project
TGB	Target Group Beneficiaries
VH	Vulnerable Household
VC	Village Committee
WAPDA	Water and Power Development Authority
WCAP	Water Sector Capacity Building and Advisory Services Project
WB	World Bank

Units of Measurements

masl	Meter above Sea Level
MWh	Mega Watt Hour(Measuring Unit of Energy)
KWh	Kilo Watt Hour (Measuring Unit of Energy)
Ha	Hectares (Metric Unit of Area)
km	Kilometer (Unit of Length)
KW	Kilo Watt (Measuring Unit of Energy)

GLOSSARY OF TERMS

Adequate	Enough to satisfy a need or meet a requirement.
Appropriate	Suitable for identified needs or requirements.
Baseline	A set of pre project conditions used as a basis for project.
Community	A group of individuals broader than the household, who identify themselves as a common unit due to recognized tribal social, religious, economic and traditional ties or a shared locality.
Comprehensive	All relevant components have been considered and addressed.
Compensation	Payment in cash or in kind for an asset or resource acquired or affected by the project.
Cultural Heritage	Attributes of a group or society that are inherited past generations, maintained in the present.
Customary Law	A law passed down through oral tradition, which has now been adopted by the community as <i>riwaj</i> (presently two different types of traditional laws operate in the project area with reference to use rights and management of natural resources).
Cut-off-Date	The date of start of census for all non-land related entitlements and for land, it is the date for announcement of Section 4 notification under the LA Act of 1894. Any person entering the project area after the cut-off date is not eligible to receive the agreed upon entitlements.
Differently-abled HHs	Those disabled and physically and mentally challenged
Directly Affected Area	The lands and settlements physically damaged due to construction of infrastructure and inundation after reservoir impounding.
Disclosure	Openly available for public and all stakeholders
Economic Displacement	A loss of productive assets or usage rights or livelihood capacities because such assets, rights or capacities are located in the directly affected area.
Entitlement Cut-off Date	Date notified by the concerned Civil Administration establishing a deadline for entitlement to compensation in the reservoir and dam construction area (later used term "Impact Area"). Upto and including that date, lands, structures and crops in the impact area are eligible for compensation and or resettlement assistance. Structures and crops established in the impact area after this cut-off date are not eligible for compensation and resettlement assistance.
Elderly	Persons over the age of 70 years (as per birth certificate).
Entitlement	Means the sum total of compensation and other assistance according to the status of each individual in impact area or related therewith and dependent thereon as assessed by the designated committee or any other such body.
Expert	A person who has a high degree of skills in or knowledge of certain subject and experience and or training in that subject.
Grievance Mechanism	This is a process by which PAPs can raise their concerns to project authority.
Hamlet	Locally refer to cluster of households, often related by kinship. Hamlets are small village settlement.
Hardcore poor	Those who live on dollar a day (i.e., poorest of the poor).
Head of household	The head of household according to <i>sharia</i> is principally the husband. In case the husband is dead or disabled, the widow / respective wife can act as 'Head of Household'. Head of the household will deal with all land acquisition / resettlement affairs including getting cash compensation for land, houses and other lost properties and assets.
House	A place of residence for one or more households, including a number of residential and non-residential structures within premises along with any ancillary structures and nonagricultural land around.
Household	A group of persons living together who share the same cooking

	and eating facilities, and form a basic socio-economic and decision-making unit. One or more households often occupy a house.
Impact Area	The area which is directly affected by project activities.
Independent Reviewer	A person who reviews project documents but not employed by DHC.
Indigenous	Customary, cultural, economic, social or political institutions those are separate from the dominant society and culture.
Indirectly Affected Area	The lands, settlements and infrastructure, though not lying within the impact area to be affected by the project construction / operation activities, which could be affected in the form of: social disturbance; denial of public amenities (education, health, utilities); and disruption of access (roads, bridges) and communication linkages.
Involuntary Resettlement	The process of resettlement without informed consent of the displaced persons or if they give their consent without having the power to refuse resettlement.
<i>Jirga</i>	An assembly of elder men/notable to discuss and decide about economic / social / cultural affairs of a village or community including dispute resolution between individuals. Established traditional judicial practice in the project area.
Land Acquisition	Means the process whereby a person is compelled under eminent domain by a public agency to alienate all or part of the land he owns or possesses, to the ownership and possession of that agency, for public purpose in return for compensation.
Land Holding	The basic unit mostly occupied by one household, consisting of: house(s); side building(s); land; trees; and irrigation facilities.
Land Owner	Anyone among the potentially Project Affected Peoples area who has the legal title or physical possession of the parcels of residential / cultivated lands/land or is living as absentee landlord due to historic rights on these parcels.
Landless People(s)	People(s) of the project area that do not own any parcel of residential or cultivated land or other type of land, but have close attachments with the landowners or businessmen to work as daily or casual laborers for their day-to-day earnings.
Livelihood	Means of resources required for living.
Living standards	Access to well-being indicators to individual, group or nation such as health, education drinking water, sanitation, employment, nutrition, housing, transport, electricity etc.
<i>Malik</i>	Head of tribe/sub tribe responsible for dealing at village level with the matters of land; law and order; benefits of community and community conflict.
Management Plan	It is tool use for managing particular issues and establishes the way to solves them.
Market Value	The value of asset determined by market transaction of similar assets and finally arrived at with the stakeholders, after taking into account the depreciated value of tangible assets.
Mitigation	Relief of a negative impact.
<i>Patwari</i>	An official of the District Administration from District Revenue Office deputed at village level that is responsible for all land and revenue related matters.
Physical Displacement	A loss of residential and related non-residential structures including physical assets due to location in the project impact area.
Poor	Those who are under the nationally defined poverty line
Process	A chain of actions bringing about a result.
Project Area	Means the area specified by the Project Director to DC and notified in the official Gazette.
Project Affected Area	The associated area affected by project interventions.
Project-Affected Household	All members of a household, whether related or not, operating as a single economic unit, who are affected by the project.
Project Affected Persons	Are the peoples (households) adversely affected by any project

(PAPs)	related change or changes in use of land, water or other natural resources, or the person(s) who loses his/her/their asset or property movable or fixed, in full or in part including land, with or without displacement, after the commencement and during execution of a project.
Project Components	Project components include construction of right bank access roads RAR-01, RAR-02, RAR-03, construction of KKH-01 & KKH-02, project colony, disposal area, dam and quarry area, etc.
Project Resettlement Office (PRO)	WAPDA's organization responsible for implementation of the Resettlement Action Plan, including liaison with the related civil administration, affectees and other stake holders.
Relocation	Means physical movement to an alternate location of the assets and infrastructure permanently lost due to the project impact. It may include: houses; public service facilities; religious and other objects.
Replacement Cost	The amount of cash compensation determined on rate basis by District Collector after negotiation with affectees to replace the lost assets without taking into account any salvages value.
Reservoir	Any pond or lake used or created by project for the storage of water.
Resettlement Assistance	Support provided to the peoples who are physically displaced by a project, to enable smooth resettlement, including food, shelter, and social services. Assistance may also include cash allowances to compensate affected people for the inconvenience associated with resettlement at a new location.
<i>Shariah</i>	The Islamic Law as laid down in the Holy Quran and practiced by the Holy Prophet and his followers and covering all aspects of the human life.
Short-Term	Means day to day related.
Significant Stakeholders	Important with regard to impact. Include affected persons and communities, proponents, private businesses, NGOs, host communities, EPA's and other relevant local, provincial, federal departments and financing institutions.
Suitable <i>Tehsil</i>	Appropriate for the desired purpose, condition or occasion. Sub-district Administrative area/jurisdiction below a district (A district is divided into more than one tehsil).
Tenant	A farmer who cultivates land of others on rent under the following two arrangements: 1) yearly cash payment (Kalang); and 2) share-cropping of agriculture produce with the owner on the basis of mutually agreed ratio.
Transparent	Availability of product/documents to be reviewed to the public on demand.
Tribe	A group of people defined in terms of common caste, sub-caste, descent, territory and culture .A tribe is often divided into sub-tribe bond on territory of leadership.
Union Council	Lowest tier in a sub-district of elected local bodies and responsible for planning / managing affairs at a group of village and hamlets level.
Vulnerable groups	Vulnerable groups include the very poor, marginalized, informal settlers, <i>Gujjars</i> , <i>Soniwals</i> , elderly and female-headed households.

RESETTLEMENT ACTION PLAN

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EXECUTIVE SUMMARY

THE PROJECT

The Dasu Hydropower Project (the Project) is a run of the river hydroelectric power project to be constructed on the Indus River by Water and Power Development Authority (WAPDA) under the Ministry of Water and Power, GOP with financial assistance from the World Bank (WB). The proposed project is an integral part of GOP Power Policy 2013 and WAPDA's "Vision 2025." The objective of GOP Power Policy is to improve cheap hydropower generation capacity to meet the growing energy demands in the country for agriculture and industrial purposes. The Dasu Hydropower Project with an installed capacity of 4,320MW and generation capacity of 21,445 GWh annually will be a milestone in achieving the GOP Policy 2013.

The Feasibility Study Report (2009) formed the basis for the Government to proceed with the detailed engineering design and construction plan for the Project. Detailed design work for the Project was carried out from 2011 to 2013. This Resettlement Action Plan (RAP) is one of 14 volumes prepared under the Project Social and Resettlement Management Plan (SRMP). The RAP covers the dam/reservoir, relocation of KKH, access roads, colony, offices, construction camps, other associated works and resettlement sites. The Project construction activities, particularly the pre-construction preparatory phase involving land acquisition, resettlement, site offices, and access roads etc. will likely start in the second quarter of 2014.

PROJECT BENEFITS AND IMPACTS

The Project will bring direct social and economic benefits to electricity consumers throughout the country. The Project is expected to provide 21,445GWh of energy per annum which will assist in addressing the power deficits of the country. This will have tremendous beneficial impacts on the national economy and improve the quality of life of the people currently suffering due to power outage every other hour of the day.

A total of 4643 ha of land will be required for various project components such as dam axis, reservoir area, relocation of inundated Karakorum Highway (KKH), campsites and housing areas for operation and maintenance staff of the project and access road. As a result, 767 households from 34 hamlets/villages will require relocation. The adverse impacts of the project have been documented comprehensively covering all social aspects of life and livelihoods of the affected communities up and downstream of the Dasu dam and to develop appropriate mitigation measures.

APPROACH ADOPTED TOWARDS SAFEGUARD ISSUES

The Dasu Hydropower is a complex and challenging project requiring comprehensive social safeguard measures to address adverse social impacts in a mountainous "tribal" context. Thus, the social and resettlement safeguard issues required attention to physical and economic displacement and livelihood impacts, public consultation and engagement, gender issues, public health, consideration of in-migrants and construction worker issues, and monitoring of other unanticipated impacts of the project.

The safeguard plans addressing the above issues have been packaged under Social Resettlement Management Plan (SRMP). The documentations comply with GOP and World Bank requirements for safeguards and intended to provide support and assistance to the project affected persons as "beneficiaries" of the project. The RAP has been prepared to address and mitigate the relocation and resettlement impacts of the project interventions. It has been revised and updated based on comments by members of the International Panel of Experts (IPOE). It will be further updated prior to as well as during implementation and cleared by the WB and disclose prior to implementation of civil work and posted in Project/WAPDA website and WB Info Shop.

LAND ACQUISITION AND RESETTLEMENT IMPACTS

The field surveys revealed that a total of 767 households would be affected as a result of the construction of the reservoir, O&M staff colony, contractors' camp & yard and the relocation of KKH. The social impacts include, largely, loss of land (residential and agricultural and mountainous); structures (residential, commercial and communal) income and livelihoods (land owners, wage earners and *soniwals*). The lands acquired are largely communal and consists of homesteads, terrace as well as mountain or hilly slopes. The ownership is largely customary and approved and defined by the tribal groups and community level *jirgas*. Table A presents a summary of the project impacts addressed in this RAP, which covers the Dam, KKK and other associated components. A detailed description of the project impact is presented in Chapter 3.

Table A: Project Impacts – Summary

Description	Units	Quantity
Total Project Affected Persons (PAPs)	Persons	6,953
Total Project Affected Households (AHs)	Household	767
AHs losing housing structures and requiring relocation	Household	767
AHs losing agriculture land	Household	600
AHs losing businesses/commercial structure	Household	76
<i>Soniwals</i> losing livelihood only	Household	13
Vulnerable Households (VHs)	Household	71

MEASURES TO MINIMIZE IMPACT

The key action taken to minimize impacts was the selection of dam axis site, based on alternatives. The site selected has reduced the overall social impacts and number of households to be displaced. Furthermore, extensive consultations conducted with the affected communities during detailed design period led to changes in technical design and site selection – for instance, (i) selection of the dam axis site over other alternatives and (ii) abandonment of the selected sites for “model” resettlement villages in favor of community desired resettlement sites in upper elevations in the hills—to reduce social impacts and disruption of the social and kinship networks in post-resettlement period and (iii) The project colony/office site was also changed to avoid and minimize project impacts and displacement.

OBJECTIVES OF RESETTLEMENT ACTION PLAN

The main objective of the RAP has been to (i) identify project impacts; (ii) plan measures to mitigate adverse social impacts resulting from loss of assets due to construction of the several project interventions as reservoir, powerhouse, construction camp and colony, access roads and new alignment of KKH road section; and (iii) improve the general quality of life of people in the project area through area development plan involving social, community, health and educational infrastructure development activities. The RAP presents (a) socio-economic profile of the affected settlements; (b) type and extent of loss of assets; including land, structures and trees; (c) principles and legal framework applicable for mitigation of these losses; (d) the entitlement matrix; (e) income and livelihood restoration program; (f) relocation and resettlement (R&R) budget; (g) institutional framework for the implementation of the plan, including monitoring and evaluation.

STAKEHOLDERS PARTICIPATION AND DISCLOSURE OF RAP

The public consultation process in the project area commenced during the scoping sessions of the feasibility study completed in 2009. The process was continued during the detailed design period, starting in 2011. Prior to preparation of the SRMP, several *jirga* meetings were held in the project area to consult the potential affected community and village leaders such as *maliks* and religious leaders for information dissemination on

project benefits and impacts. The project-affected persons were consulted in conducting the field surveys for designing the Resettlement Action Plan and other SRMP plans. The consultation process was further intensified through formal and informal meetings, including four major workshops in Peshawar, Lahore, Karachi and Islamabad for disclosure of project impacts – social and environmental – to stakeholders for their inputs and feedback. The summary and overview of the consultations held during the feasibility period and detailed design are detailed in Chapter 4. Project design, impact and policies for mitigation of adverse social and environmental impacts has been discussed and disclosed to the affected communities at the local level. The RAP will be translated into Urdu and made available to the affected people prior to project appraisal. Further, an information booklet in local language has been also prepared for social preparation and disclosure.

RELOCATION AND LIVELIHOOD RESTORATION

In consultation with and as desired by the affected households and communities, the project has designed options for relocation (see Table B). From the indicated preferences Community-based relocation to higher elevations of the same valley was identified as the most appropriate option. Ninety percent of the households opted for the option. Accordingly, RAP has included provisions for land preparation for both housing and agriculture land, if available and civic amenities in the resettlement sites.

Table B: Relocation Strategies

Option	Strategies	%
Community-based Relocation to Sites in Upper Elevation	<ul style="list-style-type: none"> Relocation to sites of their own choices in higher elevations where the community owns land. The sites will be developed by the Project. The plots so developed will be redistributed among the households by the community at no additional costs to resettled households. In case of land to be acquired by the Project for site development, resettled households will pay for plots to be determined by the Project Community decision-making with regard to site lay out and civic amenities to be established Site-specific Relocation Planning Committee consisting of the <i>malik</i>, representatives of affected families, Director-Social/Resettlement Unit (Director-SRU) and WAPDA Site and services development at project costs Shifting and reconstruction grants as per the entitlement matrix 	90%
Self-managed Relocation to “Down Country”	<ul style="list-style-type: none"> Self-managed individual and/or families to identify destination and or site downstream and cities like Mansehra and Abbottabad districts Project will pay all eligible compensation and benefits prior to relocation Additional 15% of the total compensation for self-managed resettling households Director-SRU/WAPDA to maintain the database for self-managed resettled households No plot will be given to them in the Project developed resettlement sites 	10%

In view of resettlement impacts, the RAP has provided for participatory site planning and adequate provisions as alternative income generation/skill development and other enabling strategies whereby Project Affected Persons (PAPs) can continue their previous occupation, initiate new ventures or undertake an alternative occupation. Chapter 7 presents overall impacts on income and livelihoods, based on a separate income and livelihood survey in the project-affected area. The income restoration

measures are based on the analysis of the natures of impacts and losses to be incurred by the affected households and communities. The basic objective behind the livelihood restoration activities and schemes is to improve or at least restore the economic status of the PAPs enjoyed prior to the project, which complies with World Bank safeguard policies on involuntary resettlement. In order to achieve this, the project has adopted a two-fold approach with regard to livelihood restoration comprising of (i) short term interventions for income restoration, targeting the immediately affected households and (ii) long term (10 year) program for sustainable livelihood development for communities living the project area, including the affected communities. A development fund will be established under the project to assist in this development effort. This fund will targeting the entire project area, covering not only those affected but communities living in the Project area.

INSTITUTIONAL ARRANGEMENT AND GRIEVANCE REDRESS

The institutional arrangements for implementing the RAP and Income Restoration and Livelihood Plan (ILRP) are presented in Chapter 8 where the GM-CEO/PD as head of Project Management Unit (PMU) will have overall responsibility. A separate Safeguard Office will be established under the PMU to be headed by a Chief Engineer/CE as Deputy Project Director (Deputy PD) responsible for implementation of SRMP. Cash compensation will be paid through District Collector, while other resettlement benefits will be disbursed through the Deputy PD – Safeguards through the Director-SRU. Director-SRU will establish field level implementation teams each headed by Deputy/Assistant Director with experienced field personnel, dedicated to specific tasks for implementing the plans (see Table C). Director-Environment will also have similar teams for implementation of Environment Management Action Plan (EMAP). WAPDA will engage a consultant expert team to

provide technical assistance during project implementation. All proposed offices will be staffed with qualified experts through staff reassignment of WAPDA staff and recruitment from the market. A district project team will also be set up with staff from various departments of Kohistan District Administration. They will work together with WAPDA team. Experienced NGOs in rural development will be engaged to facilitate community mobilization and work with the PAP households in their livelihood development schemes.

Table C: RAP and ILRP Implementation Teams and Tasks

Team	Key Task
Land Acquisition Team	Assist APs as well as District Collector Revenue for preparation of land records and for timely payments of compensation for acquired assets for the project Further assist District Collector to give the possession of land to Project
Resettlement and Rehabilitation Team	Work with affected communities in social preparation and mobilization for relocation, resettlement and rehabilitation of the affected persons
Income and Livelihood Team	Promoting social preparation and establishing proposed livelihood restoration program, including priority employment in project.
Training and Skill Development Team	Organize skill development training of SRU staff and others, including identification of affected persons for vocational training at project costs, and facilitation of employment in project construction work
Communication Team	Responsible for community contacts, information, preparation, disclosure, media and public communications
Gender and Community Health Team	Assist local administration and affected communities in implementation of GAP and Public health Action Plan

SRMP implementation will be done in a participatory manner with representations of all key stakeholders namely - the government, local elected representatives, community leaders, religious leaders and the affected persons. Selected representatives from

appropriate stakeholders will be absorbed in various resettlement management committees. While Village Committees will be strengthened for resettlement site planning and management, a four-tiered Project Grievance Redress Committee (GRC) system will be established for addressing grievances of the affected persons dealing with social/resettlement and environmental management. RAP has provisions for orientation and capacity building programs for its staff as well as members of various local committees, including GRCs.

BUDGET

The budget for RAP implementation comprises ten separate components, including direct costs for land acquisition and other assets such as structures, crops and trees. The land acquisition cost is based on rate basis negotiated by District Collector with the affected communities/*Jirgas* for land, structures and other assets. Other cost categories include resettlement site development, livelihood support, local area development, implementation planning and design, administrative costs, training and capacity building, monitoring and evaluation, and contingencies.

The cost estimate in the budget is based on inventory of losses completed during May-September, 2012, and at current market rate evaluation with provisions for yearly escalation. The total estimated cost of implementation of RAP in PKR is 37,880.74 million (US\$ 398.74 million). Detailed budget is presented in Chapter 9.

MONITORING AND EVALUATION

PMU will establish a monitoring and evaluation (M&E) system for collecting, collating and analyzing information on RAP implementation process in a systematic and continuous manner and identify the shortcomings and limitations of the process. Monitoring will be done both internally and externally to provide feedback to WAPDA, MOWP, Planning Commission of Pakistan and the World Bank as well as to assess the effectiveness of the RAP policy and implementation. A four-tier monitoring system has been established.

First, PMU will conduct regular internal monitoring through the Resettlement Monitoring Unit (RMU) under the supervision of Dy. Director. The Deputy Director (Resettlement) with the help of CSC will carry out internal monitoring with the help of Director-SRU. Internal monitoring will comprise of monitoring both the process and output indicators. Progress and performance monitoring software will be developed to facilitate monitoring output on a regular basis. Internal monitoring reports on RAP implementation will be included in the monthly and quarterly Project Progress Reports of PMU.

Second, Independent external monitoring Consultants will be commissioned by PMU. Independent External monitoring will be carried out quarterly for review and assessment of resettlement implementation, verification of the results of internal monitoring in the field and recommending adjustment in delivery mechanisms and procedures, as necessary. Their report will directly be submitted to donor agency and WAPDA Authority.

Third, the Ministry of Water and Power and Planning Commission of Pakistan will also carry out supervision and monitoring to assist PMU and the donors. The financiers themselves will also monitor the overall performance of project, including the RAP and other safeguards implementation.

Fourth, the Panel of Experts (POE) established for this project will also periodically monitor the implementation of the projects.

The Director-SRU will establish an electronic databank for a Management Information System (MIS) as the main source of information on all resettlement-related data for implementation and monitoring purposes. In this respect, the comprehensive Databank of IOL and census/surveys conducted for planning purposes will be available with the Director-SRU. In addition to the above databank, the implementation data base will include information on land and property values, PAP entitlements, compensation received by PAPs, resettlement site development, income and livelihood restoration

measures implemented and resolution of complaints received by GRC. Director-SRU will prepare annual review report to assess progress and to verify whether the resettlement goals have been achieved and more importantly whether the livelihoods and living standards of the PAPs have been restored and or/enhanced and suggest suitable recommendations for improvements, where necessary. The M&E documents will also be publicly available, including posting on project website. PMU will establish a monitoring and evaluation (M&E) system for collecting, collating and analyzing information on RAP implementation process in a systematic and continuous manner and identify the shortcomings and limitations of the process. Monitoring will be done both internally and externally to provide feedback to WAPDA, MOWP, Planning Commission of Pakistan and the World Bank as well as to assess the effectiveness of the RAP and implementation. A four-tier monitoring system has been established.

1 DESCRIPTION OF THE PROJECT

This chapter presents a brief background of the project preparatory history, a description of the project and alternatives considered, technical features of the project including associated facilities, scope of land acquisition, project impacts and approaches and objectives of the Resettlement Action Plan (RAP). Details are presented in the subsequent chapters.

1.1 PROJECT BACKGROUND

The Dasu Hydropower Project (DHP) is a run of the river hydroelectric power project to be constructed on the Indus River by Water and Power Development Authority (WAPDA) on behalf of the Government of Pakistan. The proposed project is an integral part of WAPDA's "Vision 2025" and the Power Policy 2013 of GOP. The objectives of the Power Policy 2013 is to improve electric power generation capacity, the revival of the country's economy by injecting cheap hydropower energy, and meet the future needs of Indus Basin irrigation system.

The Inventory and Ranking Study conducted in 1982, identified DHP as run of the river hydro power project on Indus River 74 Km downstream of the proposed Diamer-Basha Dam Project. The Feasibility Study¹ formed the basis for the Government to proceed with the current detailed design and construction plan for DHP. The Resettlement Action Plan (RAP), which covers the Dam, KKH and other associated facilities, has been prepared by the Project EA – WAPDA. The Project will be funded by the World Bank and the Government of Pakistan.

1.2 PROJECT RATIONALE

In recent times the energy requirements of Pakistan have been growing at the rate of 3-4 times of the annual rate of population growth. Consequently, the country is now facing one of the worst power shortages in its history. Further, the utilization of scarce fossil fuel resources of oil and natural gas for power generation and large imports of oil are adversely affecting the national balance of payments. Progressively increasing shortage of indigenous natural gas has necessitated the increased use of furnace oil, prices of which are tied with the oil prices in international markets.

Considering the current energy shortage and the heavy burden of non-renewable sources on the economy, exploitation of domestically available cheap hydropower potential through multi-purpose projects was accorded high priority by GOP. And, Pakistan is well endowed with this renewable energy resource of hydropower with a conservatively estimated potential of around 46,000 MW. Nevertheless, only a small fraction of about 6600 MW of this has been exploited up till now.

1.3 PROJECT AREA AND MAIN FEATURES

The Dasu Hydropower Project is to be constructed about 8 Km upstream of Dasu Bridge near Dasu town, in Kohistan District of Khyber Pakhtunkhwa (PKP) Province. It is located 74 Km downstream of Diamer-Basha Dam Project. The Dasu dam site is located in a mountainous area and is accessible from Islamabad by Motorway/G.T Road and Karakoram Highway via Abbottabad-Mansehra-Besham-Pattan-Dasu. There is no river transport, rail link or airport close to Dasu. The Project area is classified as high risk zone considering earthquakes. (See Appendix J General Allotment of area)

The project location is already shown in the Map (following the coverage page). The layout of the dam is presented in Figure 1.1.

¹Pakistan Water and Power Development Authority's Dasu Hydropower Project Feasibility Report, February, 2009

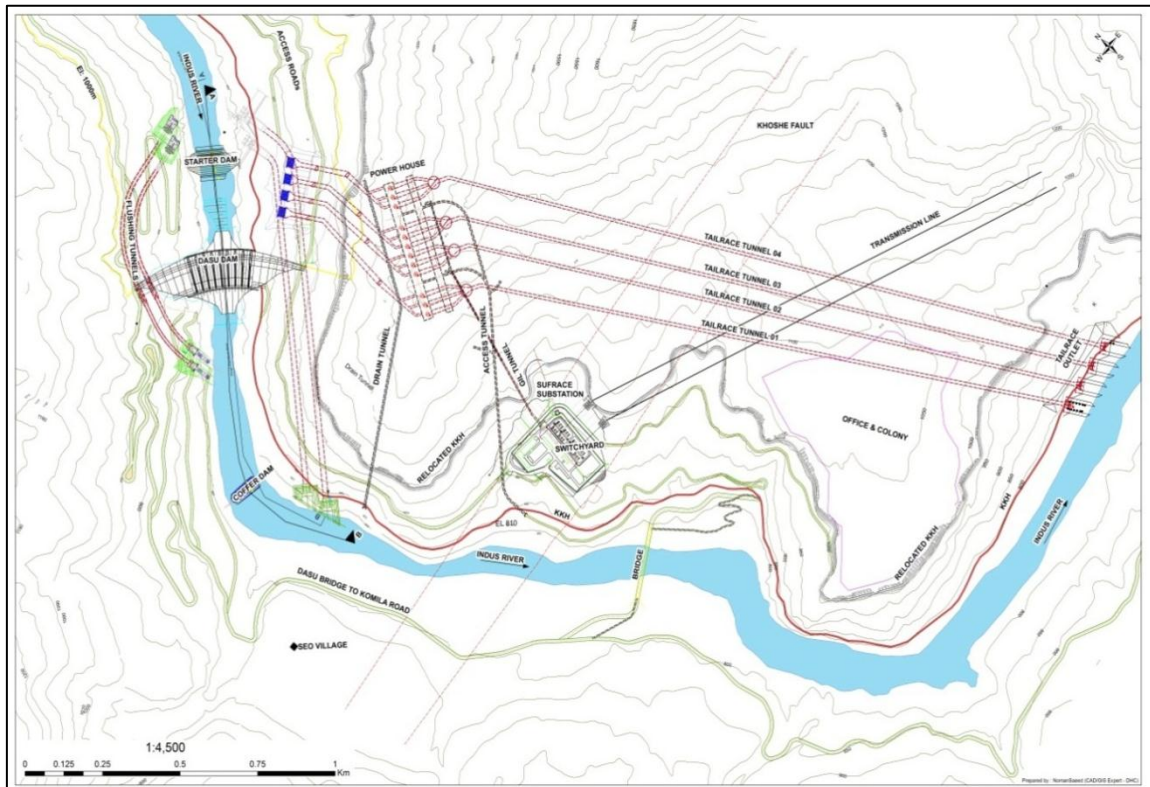


Figure 1.1: Project Layout Plan

1.3.1 Dam and Reservoir

The dam will be a gravity structure of roller compacted concrete (RCC) with a crest level of 957 meters above sea level (masl); length of dam at its crest is 571m; and maximum height of 242m above the rock foundation. The completed dam would create a reservoir requiring land acquisition of 4,643 ha when the normal maximum reservoir level of 950 masl is reached. The generating head would be 184m and the underground power house with a total installed capacity of 4,320 MW would house the twelve turbines units.

The reservoir will have a length of about 74 Km. The total area of the reservoir at FRL of 950 masl will be 23.92 km² and 26.71 km² at 957 masl. The concrete spillway will have a crest level of 930 masl with six large radial gates. There would be nine low level outlets for sediment sluicing and depletion of the reservoir to low level. Two tunnels are provided for flushing of sediment deposited in the reservoir.

1.3.2 Powerhouse and Tunnels

The powerhouse and transformer excavated caverns would be located on the left bank of the Indus river and the long tailrace tunnels would discharge back into the main Indus River at a location some 4 Km downstream of the dam axis measured along the river channel. The construction of two large tunnels is proposed on the left bank in order to divert the river water whilst the dam is under construction. The dam site would be protected by up and down cofferdams whilst it is under construction.

1.3.3 Submergence of KKH

The two-lane Karakoram Highway (KKH) running all the way to China through KPK and Gilgit-Baltistan is 810 Km long with varying road widths from about 8.5 m to 10 m. Designated as N-35 in the country's highway network; it is one of the important roads of the communications network of Northern Areas (Gilgit-Baltistan) of Pakistan linking with China.

Due to construction of the Dasu dam and the impounding of the future reservoir, 46 km of the 810 Km KKH will be inundated along the left bank of the Indus River in area of the Kohistan district.

Relocation of about 70 Km of KKH to higher level will be required² along the rim of the Dasu reservoir because of its submergence. The inundation of the KKH is a major impact of a permanent nature and will need to be rebuilt before or with the commencement of works of DHP. The database of this RAP covers KKH relocation impacts and those affected are also covered under the RAP.

1.3.4 Project Alternatives

The project was initially identified as a potential power project in 1981 and the location of the project was 74 Km downstream of the Basha Dam Project. The Feasibility Study (2009) also was conducted considering the same location. The feasibility study considered 6 options for the dam axis location including the axis selected during 1981 as option 2 which was dropped due to more resettlement than option 4, 5, 6 and 7 and inundation of 200 years old mosque and graveyard of Seo. The dam site was therefore shifted upstream further at Option 5 and Option 6. After detailed investigation option No. 5³ was selected as the preferred option. During the Detailed Design studies two other alternatives for dam axis location around the Option 5 were considered in order to make further refinement. In the analysis of these 03 alternatives, social, resettlement, environment, technical robustness and costs were considered and the Alternative Analysis Matrix (AAM) employed in selecting the preferred alternative is presented as Appendix-A. The best alternative considering the afore-mentioned aspects (Alternative 3 in the Alternative Analysis Matrix) was selected for the detailed design.

Other important component of the project is the Transmission line from Dasu to Islamabad with a total length of almost 350 Km for evacuation of generated power at Dasu powerhouse. Transmission line having length of 250 km would be constructed as new while 100 km existing line would be upgraded. Design of the transmission line is under preparation by NTDC which includes Social and Environment Safeguard planning⁴. Cost of the transmission line design will be met from World Bank credit with WAPDA; therefore all the environment and social guidelines of the World Bank will be applied. Although the Transmission line is a part of the Project, this RAP covers only generation. Separate RAP will be prepared for the Transmission Lines by NTDC.

1.4 PROJECT BENEFITS AND IMPACTS

The main objective of DHP is to augment the electric power resources of Pakistan for boosting electricity generation from domestic resources which is essential for sustaining the national economy. It is expected that the Project will bring direct social and economic benefits to electricity consumers all over the country. In addition to reducing power shedding the Project will inject a big chunk of relatively cheaper and cleaner energy to the electricity starved National Power Grid. The socioeconomic benefits will be realized through:

- (i) Optimization of water and power benefits for the national economy through conjunctive operation with Tarbela reservoir
- (ii) Providing 21,445GWh of energy per annum from its installed generation capacity is 4,320 MW.
- (iii) Increased useful life of the downstream Tarbela reservoir through trapping of sediment.

The adverse impacts of the project, particularly in the context of impacts on the community in the project area, have been reported in the Feasibility Study Report and the magnitude of the impact has been recorded through consultations and the field

² In addition to 46 Km of relocation, a new bypass of 16 Km and 2 links of 3 Km each will be built totaling 68 Km of new KKH

³ WAPDA, Dasu Hydropower Project Feasibility Report, February, 2009

⁴ These documents will be submitted separately by NTDC to the WB

surveys⁵ and consultations carried during 2011 through 2013. According to the field survey findings, a total of 6953 persons living in 767 households in 34 villages on both sides of the river will be affected by the Project which includes those affected by the loss of commercial structures and/or employment. These villages – both small and large – are entirely settled by tribal people, who mainly live on animal herding, forest and limited terrace cultivation on the hill slopes near to confluence of small streams of the Indus River. In sum, the most important adverse impacts are on households' displacement and relocation. Since the affected populations are pastoral than farmers, who seasonally migrate up and down the hills, the income and livelihood issues, therefore, are focused more around livestock improvement in association with other options.

1.5 SCOPE OF LAND ACQUISITION & REQUISITION

1.5.1 Land Acquisition Footprint

The project affected area with regard to land acquisition includes 34 villages within 02 Tehsils in Kohistan District. It is estimated that the probable maximum flood (PMF) will not cause rise in the reservoir level beyond 957 masl. With further safety considerations, the land acquisition zone for the reservoir has been determined as land below 1000 masl covering an area of 4643 ha. The construction of 70 Km of road length to replace the inundated section of the KKH requires the acquiring of 42 ha of land only on the left bank.

The Land Acquisition Plan (LAP) for the Project has been prepared and submitted by WAPDA to District Collector – Dasu in August 2012. As the District Collector's capacity in conducting the land demarcation, measurement, preparation of cadastral land record and acquisition work was limited, additional resources were provided and may have to add more resources further by WAPDA to expedite the acquisition work.

1.5.2 Land Acquisition Requirement

The total land required, as per the detail design for the various project components is 4,643 ha. Table 1.1 below details the component-wise breakdown of the land requirement. And, Table 1.2 provides the details of affected villages, households and affected land by different components of the DHP.

Table 1.1: Land Acquisition Requirements by Components

Component	Land Acquisition Requirement(ha)
Reservoir Area	4,006
Dam and Powerhouse Plant Area	269
KKH Relocation:	42
Other Roads	157
Colony, Office and Construction Camps	102
Other Uses (Fish Hatchery, Archaeological Sites etc. and Resettlement Sites)	67
Total	4,643

Table 1.2: Villages and HHs Affected by Different Project Components

Sr. No.	Village Name	Project Component	Affected HH	Affected Land (ha)
Right Bank				
1	Komila	Access Road and Contractor Camp	7	12.95
2	Kass/Zaal	Access Road and Contractor Camp	1	9.69
3	Rango	Access Road, contractor Camp and Disposal Area	1	4.14
4	Seo	Access Road	6	1.52

⁵Field Surveys conducted in May-October, 2012 for preparation of Social and Resettlement Safeguards Planning

5	Siglo	Access Road and Construction Plant Yard and main Structure	109	126.04
6	Melar	Reservoir and Access Road	42	211.60
7	Kuz Kai	Reservoir and Access Road	14	165.25
8	Kai Dogah	Reservoir and Access Road	8	71.23
9	Seer Gayal	Reservoir and Access Road	56	253.28
10	Kot Gal	Reservoir and Access Road	32	189.06
11	Waris Abad	Reservoir and Access Road	13	162.43
12	Not Bail	Reservoir and Access Road	6	70.48
13	Thuti	Reservoir and Access Road	40	89.39
14	Sluch	Reservoir and Access Road	24	101.68
15	Doonder	Reservoir	7	99.69
16	Gummo	Reservoir	19	112.86
17	Cher Shial	Reservoir	8	96.86
Total of Right Bank			393	1778.16
Left Bank				
1	Shaal	KKH, Grid Station		
2	Chuchang	WAPDA Staff Colony and KKH	104	144.25
3	Khoshi	KKH, Access Roads, Switchyard & office Main Structure	4	65.47
4	Logro	Main Structures, KKH, Reservoir		76.52
5	Uchar Nullah	KKH, Reservoir, Yard, Labor Camp	42	109.32
6	Barseen	Reservoir, KKH, Yard	36	89.25
7	Largani	Reservoir, KKH	9	96.90
8	Kaigah	Reservoir, KKH, Quarry area	49	196.27
9	Gul e Bagh	Reservoir, KKH, Quarry area	30	136.50
10	Pani Bah	Reservoir, KKH	18	155.30
11	Gadeer	Reservoir, KKH	5	136.42
12	Chalash	Reservoir, KKH	11	142.23
13	Looter	Reservoir, KKH	11	106.08
14	Shori Nullah	Reservoir, KKH	10	108.13
15	Summer Nullah	Reservoir, KKH	8	99.67
16	Lachi Nullah	Reservoir, KKH	7	106.37
17	Sazin Camp	Reservoir	6	27.50
	Shatial	Reservoir	24	1.68
Total of Left Bank			374	1797.86
Grand Total			767	3576.02

1.6 MEASURES TO MINIMIZE IMPACTS

In order to minimize impacts to the maximum possible extent and mitigate any unavoidable impacts, adequate provisions have been incorporated into the planning and design of the Project. As noted earlier, seven options for placing dam axis were studied in feasibility design including preferred option in Ranking study. Option 5 was preferred over all other due to having less resettlement impacts. Further Option 5 was studied under three options/alternatives during the detailed design period. The key action taken to minimize impacts on the community includes the following:

- First, the social and resettlement impacts (e.g., total households/population affected, land acquisition required, public responses and acceptance) were considered for selection of dam axis option 1 to Option 3 had the same impacts of resettlement while Option 4 to Option 7 have almost similar impacts on

resettlement and environment. For instance, villagers were consulted about these alternatives. There was strong option against Option-1 to Option 3 due to submergence of Seo village and historic mosque and 200 years old graveyard. Therefore Option 5 and Option 6 were considered having same impact in respect of land acquisition, resettlement and environment. Option 5 was preferred on the basis of technical, resettlement and environment aspect on Option 6.

- Second, extensive consultations have been conducted with the affected communities and people in the project areas to take in their views and incorporate the same in the project design. For instance, the width of the access road on the right bank was reduced to avoid displacement of households.
- Third, the Technical and Social Teams have worked together to reduce the social impacts of the Project by means of both design adaptation and technical solutions. For example, the Project colony site initially selected was finally abandoned to avoid displacement of households. A new site with lesser impact was selected.

1.7 APPROACH ADOPTED TOWARDS SAFEGUARD ISSUES

The Dasu Project is a major hydropower generation project with significant adverse social impacts. Therefore, the social and resettlement impact management required the addressing of physical and economic displacement and livelihood losses, public consultation and engagement, gender issues, public health issues, conflict management, in-migrants and construction worker issues, downstream fishery issues, and local area development. The safeguard documents addressing the above issues have been packaged as the Social and Resettlement Management Plan (SRMP) which includes 14 volumes of reports and plans. Table 1.3 lists the volumes under SRMP. Vol.5 is the RAP for the Project.

Table 1.3: Social and Resettlement Management Plan (SRMP)

Vol.1	Executive Summary
Vol.2	Socioeconomic Baseline and Impact Assessments
Vol.3	Public Consultation and Participation Plan
Vol.4	Resettlement Framework
Vol.5	Resettlement Action Plan
Vol.6	Gender Action Plan
Vol.7	Public Health Action Plan
Vol.8	Management Plan for Construction-related Impacts
Vol.9	Grievances Redress Plan
Vol.10	Communications Plan
Vol.11	Downstream Fishing Communities: Baseline and Impact Assessments
Vol.12	Area Development and Community Support Programs
Vol.13	Costs and Budgetary Plan
Vol.14	SRMP Implementation and Monitoring Plan

1.8 OBJECTIVES OF RESETTLEMENT ACTION PLAN

The construction of the Dasu Project will entail displacement of 6953 PAPs in 767 households in a remote, backward and poverty stricken area of the country. Therefore, the project has taken a development approach in designing the social and resettlement management programs for the project affected persons and communities. The Resettlement Action Plan (RAP) thus complies with the requirements of the Land Acquisition Act of 1894 – the legal instrument governing land acquisition in Pakistan, and World Bank Policies 4.12 (Involuntary Resettlement) and 4.11 (Physical Cultural

Resources).⁶The World Bank OP4.10 Indigenous Peoples is not triggered as none of the groups in the project area meet the conditions laid out in the Policy and hence are not considered Indigenous as per the Policy requirements.

The main objective of the RAP is to identify impacts and to plan measures to mitigate the adverse social impacts resulting from loss of assets due to construction of the several project facilities as reservoir, powerhouse, construction camp and offices, access road and new alignment of KKH road section, and improve, at least restore living conditions of the affected population. The RAP is based on the findings of the census survey, field visits, meetings and consultations with various project-affected persons in the Project area. The RAP presents (a) type and extent of loss of assets, including land and structures; (b) principles and legal framework applicable for mitigation of these losses; (c) the entitlement matrix, (d) relocation strategies and plan, including provisions for livelihoods; and (e) R&R budget; and (f) institutional framework for the implementation of the plan, including monitoring and evaluation.

1.9 RESETTLEMENT IMPACTS

This RAP has been prepared based on the detailed field surveys conducted in the affected area between May and September, 2012, and further updated with additional survey on livelihood impacts in December 2012. The survey revealed that a total of 767 households would be affected as a result of the construction of the reservoir and the new section the KKH. The impacts of these include, largely, loss of land (residential and agricultural); structures (residential, commercial and communal) income and livelihoods (land owners, wage earners and *soniwals*). A total of 4,643 ha of land will be affected as a result of the stated project interventions and the majority of the affected land is on the Right Bank comprising 70% of the total land affected. A summary of the Project impacts on persons and structures addressed in the RAP is presented in Tables 1.4 and 1.5. [Appendix M](#) contains list of all 767 affected households with names, ID numbers and impacted assets while [Appendix N](#) lists provides a list of affected structures.

Table 1.4: Summary of Affected Population and Households

Description	Units	Quantity
Project Affected Persons (PAPs)	Persons	6,953
Project Affected Households (AHs)	Household	767
Affected Households losing house structures and require relocation	Household	767
AHs losing agriculture land	Household	600
AHs losing businesses/commercial structure	Household	76
Vulnerable Households (VHs)	Household	71

Table 1.5: Summary of Affected Structures

Location/ (River Bank)	Affected Structures							
	Residential Structures		Public and Community Structures		Commercial Structures		Total	
	No.	%	No.	%	No.	%	No.	%
Left	374	87.38	45	10.51	9	2.10	428	46
Right	393	79.4	35	7.1	67	13.5	495	54
Total	767	83.10	80	8.67	76	8.23	923	100

⁶ For documentation purposes, PCR Plan has been included in the Environmental Management Action Plan (EMAP).

2 SOCIOECONOMIC PROFILES OF KOHISTAN DISTRICT

This chapter presents an overview of the ethnography and socio-economic conditions of Kohistan district in general, focusing on the key socio-economic development indicators such as demographic trends, literacy rate, income, and employment, to provide the context. A detailed socio economic profile of the project area is presented in Volume 2 Socio-economic Baseline and Impact Assessments.

2.1 KOHISTAN DISTRICT

The word Kohistan literally means “land of mountains” and is one of the most isolated and the most deprived district not only in Hazara Division but in the entire KPK. Swat is situated to its west, Chilas, Gilgit-Baltistan on the northern side, while Naran, Kaghan and Alai valley surround Kohistan from the southern and eastern sides. Dasu is the District head-quarter, whereas Pattan, Palas, Kandia and Dasu are the three Tehsils of Kohistan District. The River Indus flows through Kohistan and divides it socially and culturally. Kohistan is one of the least developed districts in the country and its national significance is the Karakoram Highway. This road is the main source of trade, transportation and link between Pakistan and China.

2.1.1 Demographic Information

The Population of the Kohistan district is almost entirely Muslim and constitutes 99.6 % and most of the people belong to *Hanfi Sunni* Sect. As per the projected population statistics for 2008⁷, 477,000 is the total population in Kohistan of which 55.43% are males and 44.57 % are females. Kohistan consists only of rural population and the population density is low with 63 per Km² while the male to female ratio is 124:100. The average household size in 1998 was 6.4 while the Average Annual Growth Rate (1981-1998) was 0.09%, much below the national rate of 2.69.

Table 2.1: Demographic Data

Indicator	Kohistan District	Pakistan
Average Annual Growth (1981-1998)	0.09%	2.69
Sex Ratio (males per 100 females)	124	108.5
Population density/ per Sq. Km	63	166.3
Average family size	6.4	6.8
Unemployment ratio	7.2%	19.68
Age Dependency Ratio	112	88.34

Source: District Census Report, Kohistan and Pakistan, 1998

2.1.2 Literacy

The 10+ literacy rate in Kohistan is low (30%) compared to the National level of 57%. Low enrolment in and lower completion of primary grades as shown in Table 2.2 is assumed to be the primary cause for low literacy. Gender disparity in educational attainment and in employment is a prominent feature of the socio-economic profile of Kohistan. Gender gaps in almost all social indicators that can be segregated by gender is a common problem. This is reflected most obviously in education, with a sizable gender gap in literacy rates and enrollment rates as compared to national statistics.

⁷Pakistan Bureau of Statistics, *Pakistan Statistical Year Book 2011*

Table 2.2: Literacy Rate of District Kohistan

Indicator	Kohistan District	Pakistan
Literacy Rate 10+	30	57
Male	49	69
Female	3	45
Primary net enrolment rate (NER)*	37	57
Male	57	61
Female	11	54
Primary completion rate	15	49
Male	25	59
Female	1	38

*The NER shown here is for ages 5-9

Source: UNDP 2011 Report On the Status of Millennium Development Goals⁸

2.1.3 Economy and Employment

The 1998 Census placed Kohistan bottom in the country in terms of socioeconomic development indicators. Of the total employed population, 79 percent were self-employed, 6.6 percent worked as employees and 10.13 percent were unpaid family helpers.

Table 2.3: Employed Population in Kohistan District by Employment Status

Employment Status	All Areas			Rural			Urban		
	Both Sex	Male	Female	Both Sex	Male	Female	Both Sex	Male	Female
Total	100	100	100	100	100	100	-	-	-
Self Employed	78.9	71.76	86.01	71.60	71.76	86.01	-	-	-
Employee (Govt.)	6.6	6.34	5.69	6.33	6.34	5.69	-	-	-
Employee (Autonomous)	0.10	0.28	-	0.27	0.28	-	-	-	-
Employee (Private)	4.5	4.07	4.92	4.08	4.07	4.92	-	-	-
Employer	0.20	0.40	-	0.39	0.40	-	-	-	-
Unpaid	10.34	17.15	3.38	17.32	17.15	3.38	-	-	-

Source: District Census Report, Kohistan, 1998

The main sources of livelihood are agriculture, livestock and forest products. Given the mountainous terrain, flat cultivable land is very limited and agriculture is mainly terrace farming, more at higher elevation when lands flatten out. People largely live on livestock – goats, sheep, even cows and bullocks (see Table 2.4) and the search for pasture is one reason for the seasonal migration between low and high altitudes. Thus, seasonal migration population and livestock or transhumance between low and high altitudes is closely tied to the economy and way of life.

Table 2.4: Livestock in Kohistan District

Livestock	Number
Cattle	169357
Buffalo	36403
Sheep	277539
Goat	786242
Camel	131
Horse	6378
Mule	17923
Ass	38293
Poultry	482785

Source: District Census Report, Kohistan, 1998

⁸UNDP2011.<http://undp.org.pk/images/publications/UNDP%20Report%202011.pdf> Accessed 10/08/2012

2.1.4 Land Tenure, Land Use and Natural Resources

Traditionally land was not permanently allotted to any individual or tribe and all the tribes owned the entire Kohistan. The tribes used to rotate their lands every five to ten years. However, after 1960 all the tribes decided to allot the lands on a permanent basis and most of the tribes distributed the land among individuals, too.

At present all the land is divided among the tribes and most of the land is also allocated to individuals. However there is no formal or regular system of land tenure in the entire District of Kohistan. Likewise, there are no land titles or records due to lack of cadastral maps or surveys. Since the area is mountainous, there are scarcities of agricultural land. Ninety-five percent of lands are uncultivable land which consists of forest areas and waste land/land not cultivable (Table 2.5). There are forests on both right and left bank of the Indus River. They are placed under one forest division.

Table 2.5: Land Use Pattern of Kohistan District

Sr. No.	Land Utilization Status	Area in Acres	% of the Total
1.	Total Area	758116	100
2.	Cultivated Area	36749	5
	(i) Net sown area	28857	-
	(ii) Current fallow	7892	-
3.	Un-cultivated area	721367	95
	(i) Cultivable waste	117249	-
	(ii) Forest area	216699	-
	(iii) Not available for cultivation	387419	-

Source: District Census Report, Kohistan, 1998

Only terrace land is available for cultivation. Land being a very scarce resource for the hill tribes, disputes over land and forests, and even water (streams) are common issues in Kohistan. Some of these disputes can continue for years. Water streams, ponds and so on are generally divided among tribes/sub-tribes/families and everyone knows who owns what. But sometimes conflicts arise over these, particularly between different tribes/sub-tribes.

2.1.5 Agriculture and Local Irrigation Systems

Despite scarcity of cultivable land in the district, people practice agriculture wherever it is possible. Only *kharif* crops are grown in high altitude lateral valleys which remain very cold in winter. Both *kharif* and *rabbi* crops are grown in the lower valleys and along the banks of the Indus where land is available. The major crops grown in the district are maize, rice and wheat. Pulses such as *mot*, *kot*, red beans and vegetables like potatoes are grown. Agricultural products are solely for family consumption and nothing is produced for the local market. Detail of acreage and production of some major crops grown in the district for the year 1998-99 is presented in Table 2.6.

Table 2.6: Acreage and Production of Major Crops in Kohistan

Major Crops	Area(Hectares)	Production(Metric Tons)
Maize	26,630	56,154
Wheat	2,080	2,441
Rice	68	149
Oil Seed	0	0
Potato	82	492
Pulses	1,050	2,100
Barley	72	74
Vegetable	82	168

Source: District Census Report, Kohistan, 1998 and; GIS data in 2012 by DHC

Irrigation practised in the area is not very systematic. Almost all the valleys have gushing streams. The lands along the bank of streams, which can be commanded, are irrigated

through channels constructed by the people themselves. In some areas land is also irrigated from springs.

2.2 CUSTOMS AND TRADITIONS

The tribal people of Kohistan consider themselves as substantially different from the majority of Pakistani population especially, with regard to ancestry. Religious leaders have a large influence on the local populace and the social set-up of the area. There prevails a sense of suspicion that outsiders, particularly NGOs, have a hidden agenda of social change detrimental to their religious and cultural practices and traditions prevailing in the area. Information disseminated through *pesh imams* of the mosques is considered more reliable and acceptable. Due to influence of the religious leaders and the distance from other parts of the country, dissemination of daily general information is very limited. Electronic media such as television is still not generally accepted and newspapers are not readily available in the villages. Further, due to the low illiteracy rate, the printed material is not used much.

Within the ambit of social structure, the basic residential/economic unit is the joint family. Typically, this unit includes an elder's household with his married sons' families. Married sons generally live in their father's household with the latter or the eldest brother exercising authority over the extended family. The authoritative head of the household has the responsibility and authority to make decisions on behalf of the entire household members. It is within the joint family that the primary solidarities lie for daily economic activities.

2.3 SEASONAL MIGRATION

Seasonal migration is very common in Kohistan and the people practice it due to a variety of reasons: hot weather, local psyche, culture, preferences and livelihood main among them. This seasonal migration is practiced to cater to the need of the time and local living style, and providing fodder for livestock. Usually people commence migrating to higher elevations in May and start moving back in mid-October. Most of the people have two houses at different elevations and; one is called the middle house and other is called higher elevation house. Some of them who are shepherds also have a fourth house at the top and move there to graze their livestock.

As illustrate in the Figure above, during summer when the ambient temperatures are high villagers prefer to move to higher elevations to beat the heat. In addition, most villagers have livestock and agriculture fields in the middle and upper area of the valley and during summer their livelihood mainly depends upon these. Further, while at the lower elevation villagers have to buy fuel wood but when they move to upper levels during summer they can gather fuel wood from own and communal forest areas where fodder is also available. Therefore, the seasonal trans-humance to upper elevations not only provides them with favourable living conditions and fodder for livestock, but also economic benefits. People, who remain living in the winter houses throughout the year are those engaged in government employment, other private sector jobs and also the tenants who have to care for others' agriculture fields. As illustrate in the Figure above, during summer when the ambient temperatures are high villagers prefer to move to higher elevations to beat the heat. In addition, most villagers have livestock and agriculture fields in the middle and upper area of the valley and during summer their livelihood mainly depends upon these. Further, while at the lower elevation villagers have to buy fuel wood but when they move to upper levels during summer they can gather fuel wood from own and communal forest areas where fodder is also available. Therefore, the seasonal trans-humance to upper elevations not only provides them with favourable living conditions and fodder for livestock, but also economic benefits. People, who remain living in the winter houses throughout the year are those engaged in government employment, other private sector jobs and also the tenants who have to care for others' agriculture fields.

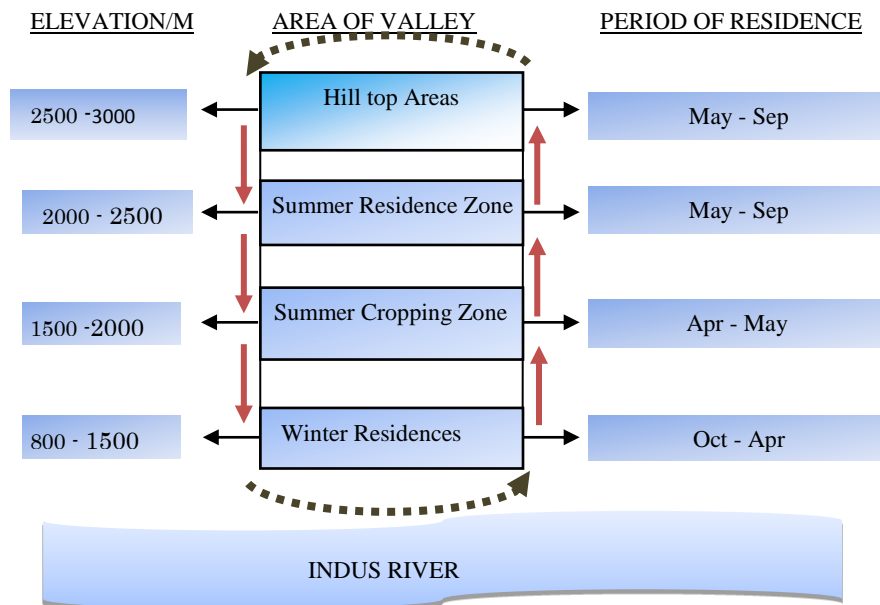


Figure 2.1: Seasonal Migration Pattern of People in the Project Area

Out-migration from the project area is quite limited and largely tied to paid labour opportunities in districts like Abbottabad, Mansehra, Rawalpindi and Swat districts. Entrepreneurs, too, migrate to downstream areas where there are more opportunities. Out migration is also noticed in case of those who seek higher education.

2.4 ROLE OF WOMEN

Kohistan has a highly patriarchal society in which women are completely absent from public life. Females rarely have, if any, opportunities to access education. They do not work outside the home, and they do not participate in politics and have no say in decision-making, even within the household. Kohistan was among the only districts in Pakistan not to field any female councillors for the local government system introduced through the Local Government Ordinance (LGO 2001), in which 33% of all local government seats were reserved for women.

Purdah is very strictly observed – women are rarely seen on the street. Even the entry of male first cousins into female areas of the home will often be forbidden. The role of women is as wives and mothers; they also carry out the majority of household and agricultural chores – cooking, washing, cleaning, collecting firewood, looking after livestock and working in the fields to assist their males in agriculture production. The latter tasks are undertaken within the confines of *purdah*: areas of the forest, for example, are designated for women and no men will go there.

Polygamy is the norm in Kohistani society: most of the men may have 2-4 wives and numerous children. The first wife is typically from within the family/sub-tribe, usually a first cousin. But increasingly, those with the means will have second or third wife from Swat or Gilgit districts. They consider the women there to be more refined and educated than their own local women. These outside women will often be kept in better rooms and living conditions than local wives. The permission of previous wife is often never sought before taking on new wives. Men still make every effort to prevent their women being not influenced by the outside world. Televisions and dish antennae have become more common in the district, but these tend to be kept in rooms where only males have access – in most households women are not allowed to watch television.

The restrictions on women may well be understood in a way that vital positions in the health and education sectors are not filled, with a corresponding negative effect on women's access to these services. Kohistan has some Lady Health Visitors (LHVs), but the overwhelming majority is non-locals (e.g. from Mansehra, Abbottabad and

Gilgitdistricts) and they can only operate out of Basic Health Units: they cannot go to women in their homes.

2.5 TRIBAL SYSTEMS AND LEADERSHIP

Kohistan is divided by the Indus in to Right bank and Left bank or Swat Kohistan and Hazara Kohistan. Both parts of the Kohistan have their own history, culture and language. Further the district is divided into different tribes and valleys. The Main tribes of Kohistan district are ManzarKhel, Money Khel, KokaKhel, ManikKhel and DarramKhel. The two main tribes ManzarKhel and Money Khel occupy the Right bank of the Indus River known as Swat Kohistan while; the main tribes on the Left bank of the Indus River, the Hazara Kohistan, are KokaKhel, ManikKhal and DarramKhel (Appendix C).

Generally, two to three villages comprise a sub tribe and, traditionally, these sub-tribes are headed by a tribal head named *malik*. The *malik* is a title name which means the head man of the village. In every village or sub tribe there is at least one *Malik*, but informally people use the term *Malik* to more than one person in the village. The *malik* is a person with money, power and respect from the villagers. The *malik* takes an interest in people's issues and tries to resolve them. A *malik* takes decisions on behalf of his village community with involvement and consultation of the notables of the village and tribe. Issues beyond the level of the Malik are resolved through the *jirga* process described below.

2.6 DISTRICT ADMINISTRATION AND TRADITIONAL GOVERNANCE SYSTEM

Kohistan District which includes the project area was under the Provincially Administrated Tribal Areas (PATA) in KPK Province. Notwithstanding that Kohistan became a District under the federal administrative system in 1976, practises of the local traditional governance system is still accepted by the provincial government and district administration. The administrative set up of Kohistan District is similar to other districts of the province. District administration is headed by the Deputy Commissioner (DC), who is assisted by district heads of other departments in his pursuits. The main district departments include: Administration; Judiciary; Police; Education; Health; Communication & Works; Agriculture; Forests; Livestock and Fishery. The head of each district department is responsible for the performance of his department. The district administration involves the *maliks* and conducts *jirga* system for local decision-making and resolution of disputes or for project administration.

Jirga is a committee of elders representing all parties to a problem or issue which deliberate and decide on village or inter-village or inter-tribe problems and issues. The *jirgas* are constituted at different levels and is convened to resolve a particular issue. If the issue is within the family; a *jirga* will be formed at the family level; if the matter is at village level; a village level *Jirga* will be formed; if the matter is at tribal level the *jirga* will be formed at tribal level; and, if the issue is between different tribes, the *jirga* will be formed with the involvement of *maliks* from different tribes. In resolving issues which require legal interpretation Tehsil level and District level *jirgas* are convened which will include the District Collector or his representatives.

2.7 AFFECTED LANDS AND HOUSEHOLD INCOME OF DHP AFFECTED VILLAGES

Table 2.7 below provides an overview of the project affected villages. As shown in the table, there is a total of 4,562 households in 34 affected villages and of these, 767 households will be affected by the project. These 767 households possess 3,576 hectares of land. Out of the total affected land 143 hectares (4%) of land is used for terrace agriculture, while average income of the affected households is 31,807.

Table 2.7: Affected Land and Household Income of DHP Affected Villages

Sr. No.	District	Village	Total HHs	Affected HHs	Affected Lands (ha)				Average HH's Income (PKR)
					Total Land	Agri. Land	% of Agri. Land	Agri. Land/HH	
1.	Kohistan	Komila	850	7	12.95	0.14	1.08	0.02	31,656
2.	Kohistan	Kass/ Zaal	70	1	9.69	0.10	1.03	0.10	23,950
3.	Kohistan	Rango	80	1	4.14	0.14	3.38	0.14	47,657
4.	Kohistan	Seo	1500	6	1.52	1.00	65.79	0.17	35,365
5.	Kohistan	Siglo	109	109	126.04	20.02	15.88	0.18	25,563
6.	Kohistan	Melaar	42	42	211.60	18.59	8.79	0.44	31,553
7.	Kohistan	Kuz Kai	80	14	165.25	2.86	1.73	0.20	41,527
8.	Kohistan	Kai Dogah	8	8	71.23	1.43	2.01	0.18	20,181
9.	Kohistan	Seer Gayal	56	56	253.28	35.65	14.08	0.64	30,630
10.	Kohistan	Kot Gal	32	32	189.06	2.00	1.06	0.06	35,407
11.	Kohistan	Waris Abad	13	13	162.43	0.07	0.04	0.01	15,980
12.	Kohistan	Not Bail	6	6	70.48	2.15	3.05	0.36	26,250
13.	Kohistan	Thuti	90	40	89.39	1.43	1.60	0.04	39,056
14.	Kohistan	Sluch	24	24	101.68	2.86	2.81	0.12	38,436
15.	Kohistan	Doonder	7	7	99.69	2.86	2.87	0.41	18,356
16.	Kohistan	Gummo	19	19	112.86	10.01	8.87	0.53	25,266
17.	Kohistan	Cher Shial	8	8	96.86	-	0.00	-	21,714
18.	Kohistan	Chuchang	170	104	144.25	7.15	4.96	0.07	19,772
19.	Kohistan	Khoshi	85	4	65.47	0.01	0.02	0.00	24,000
20.	Kohistan	Logro	110		76.52	-	-	-	15,373
21.	Kohistan	Uchar Nullah	250	42	109.32	2.86	2.62	0.07	30,276
22.	Kohistan	Barseen	150	36	89.25	1.43	1.60	0.04	31,010
23.	Kohistan	Largani	9	9	96.90	0.01	0.01	0.00	34,030
24.	Kohistan	Kaigah	49	49	196.27	21.45	10.93	0.44	47,121
25.	Kohistan	Gul e Bagh	45	30	136.50	2.00	1.47	0.07	26,755
26.	Kohistan	Pani Bah	82	18	155.30	-	0.00	-	42,220
27.	Kohistan	Gadeer	22	5	136.42	-	0.00	-	48,200
28.	Kohistan	Chalash	25	11	142.23	-	0.00	-	27,000
29.	Kohistan	Looter	200	11	106.08	0.72	0.68	0.07	42,346
30.	Kohistan	Shori Nullah	90	10	108.13	-	0.00	-	45,727
31.	Kohistan	Sumer Nullah	200	8	99.67	-	0.00	-	12,644
32.	Kohistan	Lachi Nullah	15	7	106.37	1.14	1.07	0.16	33,425
33.	Kohistan	Sazin Camp	6	6	27.50	4.29	15.60	0.72	24,817
34.	Kohistan	Shatial	60	24	1.68	0.64	38.10	0.03	26,143
Overall			4562	767	3576	143	4.00	0.19	31,807

3 IMPACTS OF THE PROJECT

In this chapter the adverse social impacts resulting from the project interventions are presented. The impacts on the community caused by the inundation of their assets by the reservoir, land acquisition for re-alignment of the section of the KKH, construction of colony and the construction labor camp, and other associated facilities for power generation, are considered together with details of the assets lost.

3.1 IMPACT ASSESSMENT METHODOLOGY

The detail technical design and sites selection for different project components were initially done by the technical team with inputs from the Social Team and as noted earlier, in some cases adjustment were done to reduce project impacts. For Preparation of SRMP, the following surveys were carried out from May 2012 to December 2012, with a follow up survey for livelihood impact assessment and Socio-Economic Baseline Census Survey

- Livelihood Impacts Assessment Survey
- Inventory of Loss/Resettlement Inventory Survey
- Public Health Survey
- Gender Survey
- Stakeholders Mapping and Communications Needs Assessment Survey

The impact on community and property due to proposed project interventions were assessed through field surveys⁹ conducted during the period May 2012 to October 2012. The surveys included a Census where household level data of all affected households were collected. A separate set of forms were used to establish an inventory of losses of each affected household which included details of potentially affected structures (i.e. houses), agricultural land, trees and other assets belonging to each household. Similarly, a separate set of forms was used to prepare inventories on losses in regard to commercial property and public and community structures. The data base of the Census and Inventory has been used in ascertaining the social impacts of the project. The Census and Inventory of losses was conducted on all of the potentially affected households while the Socio-economic survey was conducted on a sample of households in the project area. The methodology adopted in the surveys for data collection and community consultations are summarized in Table 3.1.

Table 3.1: Data Collection Methods used in the Study

Unit Level	Data Collection Tools and Techniques
Household Level	<ul style="list-style-type: none"> • Households Census/Interviews • Inventory of Losses Survey (structures, trees and other assets) • Commercial structures survey • Gender assessment survey
Community Level	<ul style="list-style-type: none"> • Inventory of community structures • Village Profiles survey • Livelihood Impact Assessment Survey • Public Health Survey • Community Consultations/<i>Jirgas</i>

The consultation process was adopted to share the necessary information on the project, project timeline and purposes of the census/surveys as well as building rapport with the affected households and communities. The consultation process also included scoping sessions and Focus Group Discussions (FGDs) with local communities. During the scoping sessions, people were informed about the project objectives and extensive

⁹Field Surveys, 2012, Environmental and Social Safeguards Study Detailed Design 2012

question and answer sessions were conducted to clarify the project related works and activities.

Prior to the field studies, a grand *jirga* was conducted in Dasu. . In the *jirga* meeting, a committee was set up by the local administration with at least one representative/*malik* from each affected village to assist the survey teams. The committee member of the concerned village was extremely helpful in consultation meetings, surveys and any extended interviews with any households as required. In general, the surveys were conducted successfully except in some instances where families had already moved to upper elevations on their winter trans-humance. In such cases, with the help of the *malik*/committee member, the people were requested to come down to lower elevation houses for household interviews to collect information on PAP households and affected properties as part of the inventory of losses.

3.2 PROJECT IMPACTS

The survey findings have identified a total of 767 households as being affected by the project interventions (See Appendix K for details). The major impacts on the community have been identified as loss of structures including residential structures, land including agricultural land and income and livelihood. In addition, loss of access to KKH and communication has also been identified as impacts requiring mitigation. Moreover, details of affected public facilities such as approach roads, electricity and water supply is provided in Appendix G on Checklist of Existing Civic Amenities.

Table 3.2: Type of Losses of the Affected Households

Type of Loss	Affected Households (AHs)
HHs having Agriculture land	600
Structures (Homestead, Commercial Establishment and Others)	754
Affected <i>Soniwal</i> households	13
Total Affected Households (AHs)	767
Community and Public Structures including Historical Mosques	80

Source: Field Surveys, 2012

3.3 LAND ACQUISITION

The land tenure system in the district is traditional and the process to officially document the titles and holdings by District Collector's Office for compensation purposes has been started. Land ownerships identified during the household level surveys will be further verified by the District Collector's Office during the acquisition process through community level meetings and *jirgas*. Therefore, the current estimate of land loss using inventory survey and through GIS for land consisting of forests will be updated and finalized through the Detail Measurement Survey by District Collector Office.

A total of 4,643 ha of land will be affected due to the project interventions. The different categories of land are given in the following Table 3.3. The Appendix contains the categories of Land by Villages.

Table 3.3: Categories of Affected Land

Land Categories	Affected Land (Hectares)	Ownership(%age)	
		Individual	Communal
River Area (state land)	1,067	-	-
Agriculture Land	143	100	-
Barren Land	3,126	78	22
Grazing Land	280	84	16
Land Under Structures	27	100	-
Total Land Required	4,643	-	-

Source: GIS Mapping/Social Surveys

3.4 IMPACT ON AGRICULTURAL LAND

In the absence of land title records, owners of agricultural and other types of land have to be established through joint efforts of District Collector, Deputy Commissioner and the Project in case of disputed land, convening *jirgas*. The census and inventory conducted as part of the surveys administered forms, along with project and land area maps to collect information from the affected households on their income generation activities, farming activities in particular, farming area, land location and size in cultivation. The overall project impact zones and boundaries are fixed, and the total associated land areas to be lost are identified and confirmed for various project activities, using GIS tools and mapping, design maps and verified in the field. These generated the total quantity and categories of land losses. However, due to unavailability of cadastral mapping and the fact that there is no land record at the District Collector Office, it is not possible to break down the total land losses yet at household level. The land inventory developed during the surveys will be further established to the household level by the District Collector, together with WAPDA team, local communities and *Jirgas* at the start of the project. Actually this work is a continuation of the current RAP planning and preparation of this phase of detailed planning has already started.

According to the field surveys the number of households affected by acquisition of agricultural land is 600. About 302 of the affected households are on the Left Bank and the rest on the Right Bank. About 68% of the land is cultivated by owners and 24% by sharecroppers. Tenant farmers are about 7%.

Table 3.4: Agriculture Land Affected and Ownership

Sr. No.	Nature / Type	No. of Respondents			%
		Left Bank	Right Bank	Total	
1.	Owner	229	183	412	68.67%
2.	Owner cum Tenant	0	2	2	0.33%
3.	Tenant	19	20	39	6.50%
4.	Contractor	2	0	2	0.33%
5.	Share Cropping	52	93	145	24.17%
Total		302	298	600	100.00%

Source: Field Surveys, 2012

The analysis of the impact on affected households brought forth that most of the affected households engaged in terrace agricultural activities will be affected; however, the net income loss would be limited (see Chapter 7) in the lower elevations. Although the affected population benefit from the forests in one way or another, most of the forest areas are not affected by inundation as they are at higher elevations. The resource utilizations from the forests are:

- Selling timber logs
- Cutting and collecting fuel wood for household uses and also selling by a very few PAPs on commercial basis
- Household consumption and more importantly, commercial selling of walnuts, pine nuts, etc.

Similarly most of the PAPs affected by agricultural land loss also have other agricultural plots at higher elevations where they migrate during the summer. This is further discussed in Chapter 7 Impact Assessments on Income and Livelihood Sources.

3.5 LOSS OF HOUSES AND STRUCTURES

Apart from agricultural land, a total of 767 residential structures would also incur severe impact as a result of the construction of the reservoir and associated facilities. The survey data revealed that the impact on these structures would lead to the displacement of a total of 767 households. Although the land is divided among the tribes and allocated

to individuals there is no formal or regular system of documenting land ownership in the project area as is common to the entire District of Kohistan.

3.5.1 Types of Affected Structures

Out of the 923 affected structures, the highest number of structures that will be affected are residential structures 767 (83%) followed by 80 (8.67%) community and public structures. Commercial structures being affected by DHP are 76 (8.23%) Table 3.5 below presents usage wise details of the affected structures.

Table 3.5: Impact on Structures

Location / River Bank	Affected Structures							
	Residential Structures		Public & Community Structure		Commercial Enterprise		Total	
	No.	%	No.	%	No.	%	No.	%
Left	374	87.38	45	10.51	9	2.10	428	46
Right	393	79.4	35	7.1	67	13.5	495	54
Total	767	83.10	80	8.67	76	8.23	923	100

Source: Field Surveys, 2012

In addition to private structures requiring relocation, a total 3 structures (i.e., rock carvings) have been listed under physical cultural resources (PCR). This is further explained and addressed in the PCR Management Plan¹⁰ under the Environment Management Action Plan.

3.5.2 Construction Type of Affected structures

Of the 82,281m² affected structures covered, close to 51% comprise of *katchahouses*, followed by 36% semi *pucca* structure construction. Only 9 % of the total structures comprise *pucca* houses and wood/bamboo constructions and others were less than 1% and 3% respectively (see Table 3.6).

Table 3.6: Ground Area of Affected Structures

Location / River Bank	<i>Katcha</i>		<i>Pucca</i>		Semi <i>Pucca</i>		Wood/ Bamboo		Others		Total	
	m ²	%	m ²	%	m ²	%	m ²	%	m ²	%	m ²	%
Left	23,019	51	1174	14	11489	36	35	15	2143	72	37,860	42.9
Right	21,711	48	6970	86	20382	64	203	85	817	28	50,083	56.7
Access Road	293	0.7	0	0	45	0.1	0	0	0	0	338	0.4
Total	45,023	51	8144	9	31916	36	238	0.3	2960	3	88,281	100

Source: Field Surveys, 2012

3.5.3 Loss of Commercial Structures and income

Out of the 76 affected commercial/ business structures, the highest numbers of structures being affected are Grocery Shops followed by General Stores and Restaurants. While the income from these commercial structures ranges from PKR 1,500/ Month to PKR 150,000/ month, the minimum is PKR 15625 per Month and maximum average is PKR 57,375 per Month. Average income is about of PKR 34,271/ Month (See Table 3.7 for details).

¹⁰ EMAP, Vol. 7 PCR Management Plan

Table 3.7: Impacts on Commercial Structures and Income

Sr. No.	Type of Business	No. of Affected Structures	Minimum Income (PKR/Month)	Maximum Income (PKR/Month)	Average Income (PKR/Month)
1	General Store	21	3000	62000	27857
2	Restaurant	12	13000	60000	36583
3	Hotel	2	75000	150000	112500
4	Grocery Shop	27	1500	40000	19648
5	Shoe Store	4	7000	35000	16250
6	Water Mill	3	8000	12000	10000
7	Hakeem/ Quack Clinic	3	12500	50000	30833
8	Cloth Shop	4	5000	50000	20500
Total Affected Structures		76			

3.6 AFFECTED TREES

An estimated 21,000 trees will have to be cut down due to impoundment of reservoir and other project associated construction activities. These assessments were based on an analysis of GIS/satellite data. These trees are located on the affected agricultural land but many are on mountains slopes below 1000 masl. The Social Team was unable to make any dependable count due to time constraints and difficulties in making estimates of trees up to 1000masl elevation on the accessible mountains. As per the LA processes, the District Collector will count tree numbers during their survey for compensation purposes.

3.7 IMPACT ON PHYSICAL CULTURAL RESOURCES

The Project has minor impacts on existing PCRs in the project area. These include:

3.7.1 Shatial Rock Carvings

The rock carvings are located on the river bank on the upstream side of the proposed Dasu dam site near village of Shatial the upper most villages along the reservoir. None of these rock carvings will be submerged under the reservoir and affected by construction of new KKH. This is confirmed by detailed topographic surveys conducted using 'Total Station'. The lowest elevation at the rock carving site is 967.8masl, while the maximum reservoir level under probable maximum flood is 959.46masl. Hence it is concluded that the rock carvings will not be submerged under the reservoir. It is also observed that KKH will also not submerged here

3.7.2 Mosque at Seo

Due to cultural and religious importance of Seo mosque in the region, the dam site was originally selected (from various possible alignments) to avoid submergence of Seo mosque and Seo village having a 200-yr old graveyard. Details of alternative assessment on selection of damsite are given in Section 6 of Volume 2: Environmental Impact Assessment. However, the mosque can be indirectly impacted by dust, noise and vibration from the construction related activities such as operation of machinery/transport, and blasting. These impacts can be mitigated by strict implementation of Environmental Code of Practices in Appendix 1 of Volume 8: Environmental Management Plan. In order to keep the mosque in good state of preservation and a living monument to serve its original purpose, the mosque must be protected against hazards of termite attack, decay, and the danger of fire. For this purpose injecting of anti-termite chemical into the ground surrounding the mosque structure must be carried out at regular intervals. Fire extinguishers are to be made available for emergency firefighting. Water supply and sanitation facilities are to be developed near the mosque to meet the requirement of visitors of the mosque.

3.7.3 Seer Gayal Mosque

The historic Seer Gayal mosque will be submerged under the proposed reservoir. It is common that local community have their attachment to the mosque for centuries. The sentimental value of this attachment will be hard to be cut off suddenly for the concerned population when they see it submerge into the reservoir. It is also more important to save the structure of this mosque as it represents a typical style of wood construction and decoration in the area, along with the other important mosque at Seo.

The mosque will have to be disassembled carefully and re-erected at a place of choice of the local people, according to the original plan and design through the use of the original and authentic material dismantled. This must be accomplished before the water starts filling the reservoir.

3.7.4 Graveyards

Major grave yards at Seer Gayal and Barseen will be submerged under the reservoir along with 14 small graveyards. Local communities have agreed for the protection of graveyards from the collapse of graves under water and floating of human remains. A fatwa was also issued by a local religious leader on protection of the graves that will be submerged under the Project. The graves should be stone/mud pitched with clay and local material to withstand the impact of water well before filling of reservoir.

3.7.5 Unexpected Chance Finds

The part of the Indus valley in which the project is located, has always been a narrow and dangerous passage for men and animals. Throughout the pre-historic and historic periods caravans, merchants, pilgrims and armies have used the valley bottom and /or lower slopes on the way to cross the mountain ranges from Central Asia and the Sub-continent to China and vice versa. Most of the settlements are exclusively located at the valley bottom. At these places older and newer human settlements and the continuous passage of men and animals on these crossroads must have left traces behind. Therefore, it might be expected that with construction activities of the hydraulic structures and roads there might be so-called "chance finds" of cultural and historic sites and objects. Unknown archaeological sites and objects might be accidentally damaged during project activities (earthwork, rock blasting, denting operation etc.) As a mitigation measure for these types of impacts clear chance-find procedures, described in Antiquity Act of 1975, are included in the contract documents.

The borrower addresses impacts on PCRs in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. As an integral part of the EA process, the borrower has developed a physical cultural resources management plan (please see Volume 5 Physical Cultural Resources of EMAP) that includes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities. The physical cultural resources management plan is consistent with the country's overall policy framework and national legislation and takes into account institutional capabilities with regard to physical cultural resources.

3.8 IMPACT ON VULNERABLE GROUPS

Certain groups of population by virtue of their socio-economic realities are considered socially vulnerable and thus in need of special consideration so that they can also benefit from the development activities of the project. These groups include: (a) hard core poor households; (b) Female-headed households (FHH) and (c) Households headed by differently-abled persons.

The above groups have been recognized as "vulnerable groups" under the Project. In addition to the above groups, *Sonivals* who would lose their main income source as a result of the project impacts have also been included in the list of "vulnerable households".

Table 3.8: Vulnerable Groups

Village	Nature	No.
Gummo	Differently-abled	1
Sigloo	Female Headed	1
Cheer Shial (<i>Gujjar</i>)	Landless	6
<i>Soniwal</i> Group of people (living in tents and regularly moving from one place to the other)	Landless; No stable income	13
Overall	Poor	50
Total		71

Source: Field Surveys, 2012

A total 71 of the affected households were identified as falling within the category of socially and economically vulnerable groups. As detailed in Table 3.8 above, of the 71 vulnerable affected households 70 % comprise those categorized as poor thereby making them vulnerable. Amongst the remaining vulnerable households, 18% comprise *Soniwal*, 8% landless, followed by a female headed and a differently-abled headed household. Taking into account the socio-economic vulnerabilities of the affected households, specific provisions and special measures have been incorporated in the RAP to ensure that they are not marginalized in the process of project implementation.

3.9 GENDER IMPACTS OF THE PROJECT

The tribal patriarchal social and cultural set-up imposes multiple constraints on women. The social and cultural environment is put women more with the house. Women mobility is restricted and limited to occasions such as weddings, deaths, Eid and for medical services. Even in a women headed household, it was not the mother but the son who was the main decision maker.

Women do not own property or assets. This concept is nonexistent in the area and they do not know anything about inheritance by women. Women are involved in agricultural activities, tending to livestock and also wood and water collection – more so within their own yards. The loss of land, houses and forests due to the project will have significant impacts on the women despite the predominant culture of seclusion in the project area. A Gender Survey was undertaken using the Lady Health Visitors (LHVs) of the local Basic Health Units. The LHVs received a one-day orientation and training by the Project Gender Specialist in the Office of the District Health Officer. A male national consultant, who happened to be from the Dasu area, supervised the survey operations. The Project Gender specialists were not allowed in the village other than an exposure trip to the project area. The analysis of the survey data and the gender action plan is presented as an independent volume under SRMP.¹¹

3.10 OTHER IMPACTS

3.10.1 Traffic Safety

KKH is the life line of northern areas as it is the only highway connecting the north of Pakistan with the rest of the country. About 2,590 vehicles per day use the KKH. Of these, nearly 15 percent are heavy vehicles and trucks that transport goods. Generally the traffic along KKH in the Project area includes a mix of cars, wagons, coasters, buses, trucks, tractors and trailers, low bed long vehicles, military vehicles, container carrying vehicles and large wheat carriers. In addition, the KKH is used by motor cycles, a limited number of bicycles, herds of sheep, goats, cows and mules.

During construction, it is estimated that about 200 to 300 construction trucks per day will use KKH to supply cement and other construction materials to site. These additional construction vehicles on KKH may cause traffic congestion and safety hazards. The

¹¹ SRMP Volume 6 Gender Action Plan

transport along the access roads through KomilaBazar is also expected to create traffic nuisance and safety hazards.

Further, there are no layby areas along the KKH between Pattan and Dasu, where drivers can stop the vehicles and take a rest. This is one of the common causes for traffic related accidents along KKH since drivers fall asleep during driving.

The land available on the side of KKH from Thahkot to Besham provides the opportunity to get plots of land which can be acquired by WAPDA or the contractor on rent to provide layover space for the construction vehicles. Traffic facilities, such as signal lights and speed limits, are to be strengthened from Hassan Abdaal to Dasu. DHP should support the local traffic authorities to engage traffic police at the busy junctions.

A traffic management plan will be prepared by the control unit in consultation with contractors and traffic personnel in-charge all along the KKH and in project area before the start of their operation on the following lines:

- A traffic unit at Dasu is proposed to control the construction related traffic inflow and outflow with sub-offices along KKH at Haripur, Chatter Plain, Besham, dam site, quarry site Kaigha. The Dasu office will be connected via telephone, fax, mobile phone and internet.
- The movement of traffic carrying cement or steel to be registered at Haripur after the junction of KKH and G.T road. These will travel in small lots of 10 trucks. Haripur control unit will inform the next stations by phone, fax or internet.
- Weather conditions must be ascertained before the start of the journey from the Met office and drivers must be briefed so that cargo may be protected from rain damage and the driver can plan the journey accordingly.
- The receiving stores must be notified, who must prepare for offloading the goods. This preparation includes the location of offloading, labour for offloading together with crane or low lift fork lifters.
- The load of the trucks must be less than the weakest bridge en route which, as of today, stands at 40 tons. This must be reconfirmed at the time of project implementation.
- The contractor is responsible for ensuring that all construction vehicles observe speed limits on the construction sites and on public roads and for providing adequate signage, barriers, and flag persons for traffic control. All vehicles should be fitted with audible warning devices when reversing.

3.10.2 Influx of In-Migrants and Related Social Issues

The influx of construction workers to the Project site may place considerable pressure on the traditional Kohistani socio-cultural system as well as resources. Although the volume and number of in-migrants is difficult to accurately determine at this time, a possible scenario suggests that for every job created by the Project, at least an additional 1 to 2 jobs will likely be created as a snow-ball effect to support and sustain the growing population and businesses in the Project area. However, due to the terrain, remoteness, physical constraints, availability of plain land and cultural differences, many workers coming from other areas may not like to bring their families with them. Further due to demand of local community that semi-skilled and non-skilled jobs be given to them will further reduce the in-migrants. Table 3.10 presents a conservative estimate of the number of in-migrants and their followers, including traders and entrepreneurs.

Table 3.9: Estimates of In-Migrants at Different Stage of Project Construction

Stage	Types of in-migrant	Number (Direct)	Number (Indirect)	Total
Pre-construction	All types of planning, design, survey, investigations, and construction-related temporary migrants, family/followers	500	400	900
Construction	Construction workers, consultants, and management staff, traders/entrepreneurs, family/followers	3000	4000	7,000
Post-construction	O&M/technical advisory staff, family, support staff	1375	1500	2875

As evident from the table, there will be some additional in-migrants (family, followers, service providers, etc.) to the Project sites during the project construction. . In addition to the in-migrants, there will be foreign workers (skilled and semi-skilled) employed in the project site. At the construction stage, Dasu will have at least double the population than the current number of residents, putting considerable pressure on existing resources – for example, housing/shelter, land, water, power, food supplies, jobs, and transport/infrastructure – on households and communities, threatening their general well-being and welfare.

The stakeholder consultations revealed that some locals already concerned about the “outsiders” moving in, leading to tensions and conflicts between locals and in-migrants, and putting social pressure on their traditional way of life. This may also disrupt and undermine the project work. Further, many think this will happen unless pro-active measures are taken to address the issues and to build local capacity to bridge the inter-cultural gaps and enhance understanding between the in-migrants and locals for mutual benefits. Otherwise, any reactive outcomes will likely need intervention of security forces at the Project gate for law and order, posing further reputational risks for the project.

A set of strategies has been undertaken for management of in-migrants in the Project area. These are detailed in Vol. 8 Management Plan for Construction-related Impacts.

3.10.3 Health, Safety and Hygiene

(i) Health, Safety and Hygiene at Construction Sites

Construction sites are likely to have health and safety impacts. There will be potential for diseases to be transmitted, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews being injured and affected by the construction impacts. Mitigation measures include: (i) provision of adequate health care facilities within construction sites; (ii) a health and safety manager, appointed by the contractor for each site, and first aid facilities will be made readily available; (iii) training of all construction workers in basic sanitation and health care issues, general health and safety matters, and on the specific hazards of their work; (iv) personal protection equipment for workers and visitors such as safety boots, helmets, gloves, protective clothing, goggles, masks and ear protection; (v) clean drinking water and safe sanitation for all workers; (vi) adequate protection to the general public, including safety barriers and marking of hazardous areas; (vii) safe access across the construction site to people whose settlements and access are temporarily severed by road construction; (viii) adequate drainage throughout the work sites to ensure that disease vectors such as stagnant water bodies and puddles do not form; (ix) Septic tanks and garbage boxes will be set up in the construction site, which will be periodically cleared by the contractors to prevent outbreak of diseases; and (x) some fun and compensation program for individual or team basis every week or every month (xi) Maintaining a safe work environment is a team effort, so do your part to ensure the safety of you and your co-workers (xii) Promoting Safety Awareness in the Workplace by having monthly safety meetings, hanging safety related posters in

common areas, picking safety leaders, making sure any employee that uses a machine while working is trained and showing your employees that you are a safe worker. Where feasible the contractor will arrange the temporary integration of waste collection from work sites into existing waste collection systems and disposal facilities of nearby communities.

(ii) Health, Safety and Hygiene at Construction Camps

Camp sites for construction workers are locations that have significant impacts such as health and safety hazards on construction workers and nearby communities. The potential implications associated with housing of the immigrant workforce include generation of solid waste, adverse water quality impacts arising from discharge of partially treated sewage and refuse, public health impacts through the possible introduction of diseases not prevalent in the surrounding areas, and promotion of disease vector habitats within the temporary housing areas.

The camps should have adequate housing for all workers, safe and reliable water supply, fuel supply, waste disposal facilities, hygienic sanitary facilities and sewerage system, treatment facilities for sewerage and domestic waste, storm water drainage facilities, adequate health care facilities, and in-house community/common entertainment facilities.

The Contractor shall conduct on-going training programs to all construction workers on basic sanitation and health care issues and safety matters, and on the specific hazards of their work and HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication. The contractor shall restore all the construction camps to their original condition after completion of civil works. Contractors should not allow their workforce to eat from market and move around in the area of highly sensitive socially.

(iii) Health Impacts of Reservoir

Generally stagnant water bodies, like reservoirs, have a potential risk of malaria as they can act as insect breeding areas, particularly for mosquitos. But due to the fast flowing nature of inflows into Dasu reservoir, no such mosquito breeding is expected in the reservoir areas. There were some concerns from stakeholders about the breeding of blood sucking sand fly in the reservoir. Sand fly is generally endemic to the region and found near the Chilas area (45 km upstream area from the reservoir) and the reservoir is not expected to increase population of sand flies in the region. Based on the experience of Tarbela and Ghazi Barotha, there were no health impacts noted on the nearby communities of the reservoirs. The following mitigation measures may be required to minimise the risk of health problems in the project area if any health issues are reported:

- Monitoring of insect development in the reservoir, particularly mosquitoes;
- Adoption of some malaria preventive measures through special training of doctors in the hospitals and dispensaries and public awareness;
- Occasional launching of anti-malaria campaigns including provision of medicines in each village around the reservoir.
- Occasional launching of anti-malaria spray in the settlement around the reservoir.

The above impacts (i.e., health, safety, hygiene etc.) are covered in the EMAP Vol. 8 with budget, institutional mechanisms and accountability.

3.11 PROJECT IMPACT ASSESSMENTS – OVERVIEW AND ANALYSIS

The socio-economic impact of any large of this scale will be significant. However, given the project context, the seasonal migration of the affected households up and down the hills with their herds, and access to their own land and resources in higher elevations, the overall impacts on the economy and livelihoods are fairly limited. The relocation of the affected households to higher elevations to their own land with support from the

Project has further reduced the disruption of their social and traditional tribal life. The affected tribal villages will lose their homes, and part of their land. Agricultural area is only a small portion of the land to be lost. Of the 767 families 600 families are presently involved infarming to various extents, and their lands are spread from the lower valleys to the high elevation areas. They will lose their cropping areas in the lower valleys and along the banks of the Indus River. However, agricultural land at higher elevations of the valley where crops are grown during the warmer summer season from May to September will not be affected. The combination of summer and winter season agricultural produce provides for family consumption requirements as there is no local market. Submergence of the most productive agriculture on the relatively flat areas along the river will result in shortages of both family employment and food. The terrace lands at lower elevation are only a slice of their entire holdings, which also have terrace lands at various levels in higher elevations. This is also one of the reasons why nearly all of the families indicated their preference to move to higher elevations of the same valley and continue to benefit from terrace forest and livestock. .

Most of the AHs except *the gujjars and soniwal* have agriculture fields in the middle and upper areas of the valley. During the summer cropping they grow white Maize and Sorghum (yellow maize) and keep livestock, too. Most of the families move during summer in upper valley except elderly and employee. Of the total households who migrate to higher elevation, only about 10% move up to Alpine or top level forest area for grazing of their livestock. They consist of mainly the males of the tribe and hired shepherds such as the *gujjars*. *Gujjars* and *soniwals* who have purchased land at lower elevations do not possess any land in the upper reaches. The percentage of these types of AHs does not exceed 9-10% of the total PAPs.

Dependence on agriculture as a cash income source is meagre compared to their total earnings and the main sources of cash income are livestock rearing, and selling of forest products as timber and walnut and pine nuts etc. As the community forests from where the forest products are gathered are at higher elevations this source of income will not be affected. The income impact assessment is separately presented in Chapter 7. Other impacts include the arrival of new in-migrants and construction workers to the project area. This will likely put their traditions and cultural systems under pressure and stress. Therefore, safeguarding their tribal cultural systems and institutions was given due attention in resettlement planning and strategies for the project. The social dynamics brought about by in-migration has been addressed policy measures to strengthen inter-cultural understanding with a view to minimize risks to the affected communities. This particular aspect is presented in SRMP Vol. 8¹².

Table 3.11 below provides village wise impact on agriculture land and income. As provided in the table, impact on agriculture land is 2 percent and impact on overall income is 5 percent. This is an averaged village-wise assessment and provides a general analysis. Impacts on farming income are limited to the 600 households who are engaged in farming activities, and the impacts would vary across the households. The household level impact on farming will become clear when the detailed land inventory survey is updated at household level. That would guide the livelihood assistance to give more attention and focus on those more affected in farming income.

Table 3.10: Impact Analysis of Agriculture Land and Income of Affected Household

Sr. No.	Village	Impacts on Agriculture Land			Impacts on Income		
		Affected Agriculture Land	Total Agriculture Land	Impact %	Average Income Loss (PKR/Annual)	Average Income (PKR/Annual)	Impact %
Right Bank							
1.	Komila	0.14	500	0.03	168	31,656	0.53
2.	Kass/Zaal	0.1	60	0.17	840	23,950	3.51

¹² SRMP Vol. 9 Management Plan for Construction-related Impacts

3.	Rango	0.14	90	0.16	1,176	47,657	2.47
4.	Seo	1	450	0.22	1,400	35,365	3.96
5.	Sigloo	20.02	560	3.58	1,543	25,563	6.04
6.	Melar	18.59	400	4.65	3,718	39,440	9.43
7.	Kuz Kai	2.86	70	4.09	1,716	41,527	4.13
8.	Kai Dogah	1.43	50	2.86	1,502	27,434	5.47
9.	Seer Gayal	35.65	850	4.21	3,500	36,028	9.71
10.	Kot Gal	2	70	2.86	525	35,407	1.48
11.	Not Bail	0.07	25	0.29	45	15,980	0.28
12.	Sluch	2.15	45	4.77	3,010	34,600	8.70
13.	Thuti	1.43	450	0.32	300	39,056	0.77
14.	Waris Abad	2.86	70	4.09	1,001	38,436	2.60
15.	Doonder	2.86	120	2.38	2,840	32,450	8.75
16.	Gummo	10.01	350	2.86	3,150	35,300	8.92
17.	Cheer Shial	0	150	0	-	21,714	-
Left Bank							
1.	Chuchang	7.15	350	2.04	578	19,772	2.92
2.	Khoshi	0.01	120	0.01	21	24,000	0.09
3.	Logro	0	90	0	-	15,373	-
4.	Uchar Nullah	2.86	250	1.14	572	30,276	1.89
5.	Barseen	1.43	150	0.95	334	31,010	1.08
6.	Largani	0.01	80	0.01	9	34,030	0.03
7.	Kaigah	21.45	250	8.58	3,677	47,121	7.80
8.	Gul-e-Bagh	2	320	0.63	560	26,755	2.09
9.	Pani bah	0	250	0	-	42,220	-
10.	Gadeer	0	80	0	-	48,200	-
11.	Chalashi	0	50	0	-	27,000	-
12.	Looter	0.72	90	0.79	550	42,346	1.30
13.	Shori Nullah	0	55	0	-	45,727	-
14.	Summer Nullah	0	60	0.01	-	12,644	-
15.	Lachi Nullah	1.14	120	0.95	1,368	33,425	4.09
16.	Sazin Camp	4.29	250	1.72	3,200	38,400	8.33
17.	Shatial	0.64	170	0.38	224	26,143	0.86
Total		143	7,045	2.03	1,596	31,860	5.01

Source: Field Survey, December 2012

4 COMMUNITY CONSULTATION AND PARTICIPATION

This chapter describes the project stakeholders and their attitude towards the dam project construction and the process adopted in consulting the affected households and communities on relocation and resettlement, impacts assessment, socio-economic and physical losses due to inundation and compensation as well assistance thereby, and support for their betterment. This section also contains the views and perceptions of the community on the project expressed during *jirga* meetings and; also in the planned consultation process during project environment and social assessment.

4.1 CONSULTATION WITH STAKEHOLDERS

Consultations are key processes through which stakeholders influence project decision-making and outcomes. It is the starting point for all resettlement activities. Experiences have shown that many resettlement-related problems are avoidable provided consultation activities are undertaken ahead to engage the community in local decision-making. In many ways, stakeholders' consultations are "problem-solving" opportunities and help find out meaningful options to various problems. It is always a two way process where the executing agency, policy makers, beneficiaries and affected persons discuss and share their concerns in a project process. Table 4.1 presents the purpose and modes of consultation used in the Dasu Hydropower Project.

Table 4.1: Consultations with Stakeholders – Tasks and Purposes

Task	Purpose of Consultation with Stakeholders in Dasu Hydropower Project
Why consultation with the stakeholders?	<ul style="list-style-type: none"> To build trust to ensure sustained support for the Dasu Project and build resilience for times of crisis. To learn about public concerns that need to be addressed and taken into account in designing of the project concept and preparation mitigation measures and programs To learn about the strengths, skills and organizations such as <i>jirga</i> that the stakeholders can bring to support project planning and implementation.
Modes and benefits of consultation	<ul style="list-style-type: none"> Listening and dialogue with stakeholders to keep the project tuned to public concerns early, to pre-empt breakdowns in public confidence Engaging the public as advocates for the project construction and to support the implementation of social, resettlement, and environment and health programs.

4.2 PROJECT STAKEHOLDERS IN DASU

Project stakeholders – both primary and secondary – include the project affected persons and beneficiaries in Dasu, the project owner WAPDA and other related government departments/agencies, the local governments in Dasu, contractors, construction workers, in-migrants and followers, supply/service providers, financing institutions like the World Bank, mass media/civil society members, consultants and project advisors. In addition to local level consultations and *jirga* (assembly of elders) meetings, the Project stakeholders were engaged in the review and discussions on various project aspects – technical, engineering, social and environmental - in four national workshops held in Peshawar, Lahore, Karachi and Islamabad at the early stage of impact assessments for feedback. The participants from Balochistan were invited to attend workshop in Islamabad, because scheduled workshop at Quetta-Balochistan were cancelled due to unfavorable law and order situation during that month. Table 4.2 lists the primary and secondary stakeholders in the project.

Table 4.2: Primary and Secondary Stakeholders

Type of Stakeholder	Stakeholder Profile
Primary stakeholders	<ul style="list-style-type: none"> All project affected persons, households, communities, tribes and sub-tribes, tribal heads/<i>maliks</i>, and ulemas/religious

	leaderslike <i>pesh imamon</i> the Right and Left banks, and downstream; project beneficiaries – for instance, residents of the project area, including the resettled communities, users of electricity, KKH, Access Road, downstream fishery communities.
Secondary stakeholders	<ul style="list-style-type: none"> Project owner/WAPDA, other related departments/agencies of the Government of Pakistan, Dasu District administration, project contractors, construction workers, in-migrants and followers, supply and service providers, financing institutions like the World Bank, mass media/civil society members, consultants and project advisors

4.3 CONSULTATION FRAMEWORK USED IN THE PROJECT

The guiding principle underlying consultations is that the social and environmental safeguards planning and implementation must follow a consultative and participatory process to ensure success of the project. This is particularly so in Kohistan district where no project without local endorsement and agreement is possible. This is vital when we look at the role of traditional tribal system of administration and the role of *jirga* in local decision-making and development. Thus, in Kohistan participatory approach to planning and implementation of development project is almost mandatory. This was further reinforced by the requirements of the World Bank OP 4.12 and BP 17.50/Public Disclosure of Information, which give high priority to public consultation and participation in designing and implementation of a socially and environmentally compliant project (see Table 4.3)

Table 4.3: Frameworks for Consultation

Legal/Policy Sources	Regulations/Safeguard Policy requirements
Government of Pakistan	<ul style="list-style-type: none"> Land Acquisition Act (LAA)1894 requires disclosures (i.e., under/4 – publication of preliminary notification; under Section /5A public purpose and hearing of objections Pakistan Environmental Protection Agency (PEPA) Regulations, 2000 Environmental Protection Agency (EPA) 1997 Guidelines for Public Consultation requires public consultation and involvement in project planning and implementation. The policy and procedures require proponents to consult with affected community and relevant NGO during preparation reports. The guidelines contain a number of references to the need for Public involvement.
World Bank	<ul style="list-style-type: none"> OP.4.01, Clause 14 described that for all Categories A and B projects proposed for IBRD or IDA financing, during the EA process, the borrower consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them. OP 4.12/Involuntary Resettlement: (i) Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement plans; (ii) Affected persons should be informed about their options and rights pertaining to resettlement; (iii) APs may be involved in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for

	<p>compensation benefits and development assistance; (iv) Establish appropriate and accessible grievance mechanisms; and (v) Particular attention be paid to the needs of vulnerable groups among those displaced, especially those below poverty line, the landless, the elderly, women and children or other displaced persons who may not be protected through national land compensation legislation.</p> <ul style="list-style-type: none"> • BP17.50/Public Disclosure of Information – Resettlement Action Plan (RAP) should be disclosed to the affected persons for local inputs, including documentation of the consultation process, in a timely manner, before appraisal formally begin, in an accessible place and in a form and language that are understandable to key stakeholders. All documents will be disclosed in a language that the community and PAPs understand.
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In addition, many “good practices” in public consultations from past hydropower projects in Pakistan - for example, GhaziBarotha Hydropower Project (GBHP) and Mangla Dam Raising Project – has also been considered. Some of the good practices adopted include: (i) a public participation and consultation mechanism established in the early scoping stage for effective public participation (ii) fair compensation rates formulated through extensive consultations in transparent manner ensuring smooth implementation of relocation and income rehabilitation; (iii) an accountable, community development-oriented relocation and resettlement organization, for delivery of project services; and (iv) use of various media for public information disclosure, for instance, resettlement news (in local language), public meetings, television advertisement, distribution of brochures with images, and appointment of one or more resettlement contact persons in each affected community.¹³

4.4 ROLE OF JIRGA

As indicated earlier in Chapter 2 (Section 2.6 District Administration and Traditional Governance System) the *jirga* system plays an important role in local decision-making. To date, several grand and smaller *jirgas* have been held in Dasu concerning the Dasu Hydropower Project. The *jirgas* have provided good feedback from the project area and helped define the policy and entitlement matrix for the project. Several examples of *jirga* meetings and feedback are presented later in this chapter. The *Jirga* exercises both judicial and executive roles to settle disputes pertaining to land, properties, blood feuds, and other important inter-tribal affairs as well as plays important role in the development administration of Kohistan district. This function of the *jirga* will likely to continue during the implementation of the project.

4.5 STAKEHOLDERS ATTITUDES TOWARDS THE PROJECT

As a major power generation project, the Dasu Hydropower Project will have several impacts of varying significance. Despite the impacts, the affected communities did not have a hostile attitude towards the Project although there was some opposition, particularly arising out of lack of information regarding compensation assistance and resettlement, at the beginning of the environment and social assessment. However this slowly began to change following the grand *jirgas* when WAPDA responded to the 15-point Charter of Demand submitted by the community.

The interest of the PAPs on the Project was evidenced during the consultation meetings at the *jirgas* held at Dasu site in April and June 2011. The meetings were attended by a large number of villagers, *maliks*, local administrators, project officers as PD and consultants. The project officials encouraged the participants to express themselves and engaged in detailed discussion on project impacts, community consultation, compensation, and awareness about the project and resettlement policies, and level and mode of community support for the project. Some concerns were raised by the

¹³ NESPAK, Evaluation of Past and Present Resettlement Plans in Pakistan, November 2011

participants, particularly with regard to replacement costs for land acquired by the project. There was active participation at the meetings and those who attended the four initial district level *jirga* consultations expressed their willingness to support the Project.¹⁴

The main concern was the adequacy and timely payment of compensation. These were discussed at the *jirgas* and the affected community was also made to see the positive impacts such as improved living environment at the resettlement sites with the availability of all civic amenities and social infrastructure.

4.6 KEY CONCERNS OF AFFECTED COMMUNITIES

4.6.1 Charter of Demands

As early as 28 July 2011 the community presented submitted a 15-point Charter of Demands to the PD as their benchmark for supporting the construction of the dam project. The main concerns in the Charter of Demands are on compensation rates for acquired assets (land and structure), employment, education, and healthcare facilities. The demands and WAPDA responses are summarised below as Table 4.4. WAPDA, represented by the Project Director and Executive Engineer – Dasu Office have been involved in many *jirgas* ensuring that the community engagements are helpful and that community consultation and mobilization will continue in the implementation phase of the project.

Table 4.4: Charter of Demands and Responses by WAPDA

Sr. No.	Charter of Demand	Response from WAPDA
1.	A modern vocational training Centre for local should be established before start of construction of DHP	Provision of vocational Training Institutes for male and female have been kept in feasibility study and in the Detailed Design
2.	Provision of jobs for skilled and qualified local should be accepted as the right of inhabitants of District Kohistan	Priority of jobs will be given to local inhabitants of District Kohistan on merit basis by following the codal procedures.
3.	20% Of the royalty of Dasu HPP should be fixed for the development of Kohistan District	Matter relates to Federal and Provincial Governments. The affected communities can approach the federal and provincial governments on this matter.
4.	Establishment of new modern Hospital should be completed before construction of DHP	Provision of new hospital for Dasu HPP have been kept in feasibility study and would be the part of WAPDA O&M colony.
5.	Establishment of new colleges and Universities in different areas of District Kohistan should be completed before construction of DHP	Provision of New college have been kept in feasibility study and would be the part of WAPDA O&M colony
6.	Establishment of new roads and tracks in different valleys of District Kohistan should be completed before the construction of DHP	Provision of New roads and tracks for Dasu HPP have been kept in feasibility study and would be completed during project construction
7.	Provision of supply of free electricity to all areas of District Kohistan	Matter relates to GOP and Provincial Government.
8.	Twice of the existing market rates should be considered for the acquisition of land ,property and trees etc.	Assessment and application of rates relate to District Collector, Kohistan and according to prevailing law. The land price will be fixed through negotiations with local <i>jirgas</i> .
9.	Provision of fixed quota for people of District Kohistan should be considered in all educational Institution of WAPDA all over the country	Matter relates to education policy which is a Provincial Government subject. Therefore, this is outside WAPDA's jurisdiction.

¹⁴ For full documentation of the *jirga* meetings, see SRMP Vol. 3 Public Consultation and Participation Plan

10.	Revised survey for the acquisition of land, properties, houses etc. should be conducted by involving the nominated committee by the affected owners of area	During Detail Engineering Design, the survey will be completed as proposed by the local committee.
11.	After construction of Dasu HPP, proprietary rights of fishing should be given to local people of area.	Fishing is a subject of Provincial Government. WAPDA is not responsible for this.
12.	Affectees of Dasu HPP should be resettled in modern residential colonies in different parts of the country	Resettlement sites with all modern facilities will be built by the project in project sites.
13.	Special overseas employment quota should be fixed for the local people of Kohistan District	Matter relates to Federal and Provincial Governments
14.	As District Kohistan is a non-settlement area therefore the prices of all properties should be considered doubled than the existing local market values	Matter relates to Federal and Provincial Governments
15.	Honorary certificate for their sacrifice should be given to all people of District Kohistan	Matter relates to Federal Government

The local communities positively responded to the various provisions mentioned in the responses and express their satisfaction on the various programs particularly dealing with resettlement site development. WAPDA made it clear that matters related to the Project will be reviewed and included in the resettlement planning processes and the Project will develop relocation and resettlement sites with community consultation. Others such as those related to federal and provincial governments are outside the Project. Table 4.5 lists concerns and responses from the village level consultation meetings with the affected households and communities.

Table 4.5: Issues and Findings of the Consultation Meetings - Summary

Sr.No.	Key Topic	Concerns raised	Responses
1.	Relocation Site	Affected people were much concerned about their relocation sites; of the total 133 mentions of concerns raised by PAPs, 31.6% belong to this category;	Project will construct resettlement sites in consultation with the affected communities
2.	Compensation for assets lost	Around 28% of mentions were on compensation issues in relation to loss of assets due to the project interventions, compensation rates, and timely disbursement of compensation.	Compensation rates will be decided as per the law and in consultation with local <i>jirgas</i> .
3.	Principles and procedures of rates assessment	The affected community expressed their desire to disclose the rates of assets going to be lost prior to any project development like the land acquisition survey and other surveys relating to relocation and resettlement. It was shared and disclosed that the base rates will be of DiamerBasha with consideration of relative factors like inflation and market competitiveness etc.	The compensation rates will be based on negotiations with the local communities/ <i>jirgas</i> to reflect the replacement value of the assets acquired. However, it will be done by the DC.
4.	Income/Employment	About 24% mentions related to income rehabilitation such as employment opportunities, overseas job opportunities and local vocational training for young men and needy people.	The project will keep provision for training and will give preference in employment to locals. The training itself will be a human capital development for employment.

5.	Lack of trust in Local government	Some PAPs indicated that they could not rely on the local government to deal with land acquisition and resettlement; this concern was mentioned 22 times, accounting for 15% of total mentions.	Disclosure, communication, offices on site and the involvement of local elders and <i>maliks</i> in various project committees will enhance the local confidence.
6.	New civic amenities	There also were two mentions (1.5%) on primary schools and the dispensary.	The resettlement sites will have basic modern civic amenities built at project costs. If compensation of existing not paid.

4.6.1 Resettlement Sites and Preferred Options

Planning of the resettlement site has followed a participatory planning approach. The project has explored all possible options for resettlement, including inside the project areas in Kohistan District and outside the district or other nearby districts such as Manshera and Abbotabad. These options were shared and discussed with the individual communities for their views and recommendations. Most (90%) of the PAPs have residences at higher elevations of the valley to which they migrate annually. Many expressed their preferences to move up and resettle in higher elevations according their own choices. The resettlement options indicated by the affected heads of households when analyzed fell largely into two main categories:

- Households (90%) preferring to resettle closer to their current settlement at higher elevations on their own lands or acquired land with sites developed by the Project from project cost. In case cost of land is not paid plot of same size as of each homestead will be given free of cost. In case of land is to be acquired by the project, then plots will be given to resettlers at acquired costs..
- Some (10%) households expressed their preferences for cash and wish to resettle by themselves in locations of their choices in downstream – for example, Pattan, Mansehra and Abbottabad.

Over 90% of the affected households will likely move to upper elevations. This option would be more sustainable as they are already familiar with the terrain, resources availability, and can continue their traditional herding practices as one of their primary sources of income and livelihoods. During community consultation meetings, one *malik* said this eloquently: “The mountains are our homes... there are no other comparable places... this is heaven... we are free there... we will move up and rebuild... We want WAPDA to help us re-establish our community.”¹⁵ This sentiment was repeated in meetings across the DHP area.

4.7 CONSULTATIONS CONDUCTED DURING FEASIBILITY STUDY AND DETAILED DESIGN

4.7.1 Consultation during Feasibility Study

In preparing the project feasibility study an environmental impact assessment (EIA) was completed in 2009, and in the process of preparing the EIA scoping sessions were held with the participation of the potentially affected community. Around 800 stakeholders¹⁶ were consulted and a summary of consultations and the participants are listed in SRMP Vol. 3 Public Consultation and Participation Plan (see Table 4.1). The community views

¹⁵ Community meeting in Kaigah village (Left bank) held in July 2012

¹⁶ Further details are available in the Project Feasibility Report, Vol. 9 Environmental Impact Assessment and Resettlement Aspects (Feb 2009)

expressed at the sessions were given due consideration these scoping consultations were random and also limited due to the specific conditions in the project area. The main demands of PAPs at that time were: (a) reasonable compensation for losses of their assets, such as land, houses, shops, etc.; and (b) prompt and transparent payment of cash compensation so that they could resettle at the places of their own choice.

4.7.2 Consultations during Detailed Design and Disclosure meetings

At the detailed design stage, a more vigorous consultation programs was undertaken by WAPDA and with the involvement of consultants, with a particular focus on engaging the community. Around 2578 participants attended meetings at various levels (Table 4.6). A list of participants at the four national workshops (2013) and disclosure meetings (2014) is in Appendix 0.

Table 4.6: Number of Persons Covered In By Various Consultation Meetings

Sr. No.	Activities	No. of Participants
1	Social environmental surveys and inventory survey 2012	1435
2	Jirga meetings, consultation meetings 2013	718
3	National consultative workshops 2013	239
4	Project Disclosure meetings 2014	186
Total		2578

A Field Office for Social/Resettlement Team was established in Dasu in June 2012. The Team was fully engaged with the community and conducted all surveys/interviews and attended all village-level and grand *jirgas* held. The Team earned the confidence of the community members and was fully supported by them to complete all survey works. In the field, the main issues shared and discussed with local affected communities/tribes include: (i) relocation and resettlement; (ii) resettlement site development; (iii) Jobs and employment; (iv) compensation and allowances; (v) Livelihood issues; (iv) Environmental and social issues; (v) Health and Safety issues; and (vi) In-migrants and construction workers etc. etc.

Besides the social economic survey, resettlement inventory and gender surveys undertaken in May-September, 2012, two series of consultations with the affected communities focusing on needs assessment (May-July, 2012) and relocation sites assessment (August-September, 2012), and three grand Jirga meetings were conducted with the participation of the local community. The list of those attended is included in Appendix D).

4.8 SOCIAL AND ENVIRONMENTAL CONSULTATION WORKSHOPS

Four national stakeholders' workshops were conducted in September-October of 2012 with a particular focus on social and environmental disclosure. The workshops were held in Peshawar, Lahore, Karachi and Islamabad. A Total of 239 participants – mostly local experts, key government departments/agencies, EPAs, and NGO representative and civil society members – attend the four workshops.

The format of the workshops was presentation of project materials (technical, social and environmental), round tables on key issues by participants, Q&A and wrap. In addition TOR for cumulative impact assessment was also discussed and shared in all workshops. . The outcomes and concerns raised are summarized in the proceedings in Appendix E. In sum, the workshops further enhanced WAPDA's understanding of the views by the stakeholders and experts and feedback received have been used in the preparation of the SRMP and EMAP for the Project. The Project brochure and safeguard disclosure booklet is in Appendix L.

4.9 PUBLIC CONSULTATION PLAN DURING IMPLEMENTATION

Between now and formal project implementation, WAPDA through its Field Office in Dasu, will undertake a series of activities as part of social preparation and readiness for project implementation. These consultation and participation activities will involve RAP inventory updating, site and service development, decision about household relocation options, information disclosure, livelihood development program and monitoring and evaluation of resettlement performance. The major activities are summarized in Table 4.7.

Table 4.7: Public Consultation Plan during Implementation

Stage	Activities	Purpose	Committee/Participants
Detailed RAP Planning	Detailed Land and Property Measurement Survey	Complete official measurement inventory	District Collector, EA, Village elders, and APs/ <i>jirga</i> members
	Compensation Rates formulation and agreement on compensation	Formulate agreed fair compensation standards	District Collector, EA, Members of affected communities and <i>jirga</i> member
	Disbursement of compensation funds	Process compensation payment to Aps	EA, Village elders and APs and District Collector's Office
	Relocation sites Selection	Select and provide relocation site options for displaced households	EA, consultants, village representatives, APs and District Collector's office
	Engagement in Income Rehabilitation Planning	Formulate feasible income rehabilitation plans to restore AP's livelihood	APs, EA, consultants, ,Chief Engineer-Deputy Project Director – (CE-DPD/Safeguards) ¹⁷ and related governmental agencies
Information Disclosure	Information Dissemination through Public Information Centers	Leaflets or pamphlets containing major RAP information (entitlement matrix, compensation rates, etc.) in local language to be distributed to all APs	EA, , CE-DPD/Safeguards) local media, mosque leaders, village heads, APs and <i>jirgas</i>
	Public Disclosure of Project-related Documents	Project information on detailed design and RAP plan to stakeholders	EA, Mass media, Dasu project office
Monitoring and Evaluation	Regularly Scheduled Project Update Workshops	Project Update Workshops at the end of each implementation year	Local government institutions, , CE-DPD/Safeguards ,CBOs, APs and the host community
	Special Orientation and Consultation Sessions	Periodic orientation sessions with selected stakeholders to update on progress and any other project issues	CE-DPD/Safeguards, monitoring agents and EA, beneficiaries and affected persons.
	Sharing of Review and Monitoring Results	Results of the International Panel of Experts (IPOEs) review on RAPs, EMP and other safeguard plans and monitoring will be disclosed	IPOEs, all stakeholders and WAPDA

¹⁷ The Office of the Chief Engineer–Deputy Project Director/Safeguards (CE-DPD/Safeguards) is responsible for all safeguards implementation (Social/Resettlement and Environment). See, Chapter 8 (Figure 8.1)

		to all stakeholders and will also be posted on WAPDA website	
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The consultation processes will be inclusive. In sum, all SRMP plans, more particularly income and livelihoods, gender, health, fisheries, and local area development plans, are prepared in a highly participatory manner. This participatory approach will continue during implementation of various social programs covering resettlement site design and development, relocation, livelihood restoration and development, public health, area development program etc. Key stakeholders will all be involved in the preparation of detailed annual implementation planning and implementation. Local communities and leaders will be actively involved in these activities. Dedicated Teams for the concerned activities will be responsible for designing the modalities in consultation with the stakeholders during implementation. Dasu Hydropower Project Field Office will maintain records of consultation and the decision making process including resolutions of concerns during various meetings and stakeholders engagements for further verification by the project office, co-financers and external monitoring agencies.

5 POLICY FRAMEWORK AND ENTITLEMENT MATRIX

The legal framework of Pakistan which applies to land acquisition and compensation is discussed in this section together with the relevant World Bank Policies. The resettlement experience in other similar projects is described and the Resettlement Policy Framework for the project is established. The entitlement matrix is detailed as the basis of compensation for relocation impacts of the Project.

5.1 NATIONAL LEGAL INSTRUMENTS

5.1.1 Constitution of the Islamic Republic of Pakistan

The Constitution of Pakistan (1973) clearly addresses the protection of property rights (Article 24) that it includes “no person shall be compulsorily deprived of his property save in accordance with law”¹⁸ and “No property shall be compulsorily acquired or taken possession of save for a public purpose, and save by the authority of law which provides for compensation therefore and either fixes the amount of compensation or specifies the principles on and the manner in which compensation is to be determined and given.”¹⁹ Further, Article 4 (sub-clause/a of 1) reiterates the legislative right of the people by stating that: “No action detrimental to the life, liberty, body, reputation or property of any person shall be taken except in accordance with law”²⁰.

5.1.2 National Legislation

The relevant legislation for land acquisition and compensation is included in the Land Acquisition Act of 1894 (amended). It sets out the procedure and rules for land acquisition and compensating the owners, as well as for compensating owners for damage caused to their properties, crops and trees affected by projects.

Land to be acquired for the dam, appurtenant structures, and reservoir area will have to be compensated on the basis of land ownership; land revenue records and acquisition procedures in accordance with Land Acquisition Act of 1894. It comprises 55 Sections pertaining to area notifications and surveys; acquisition; compensation and apportionment of awards; dispute resolution; penalties; and exemptions. The relevant sections of the LAA basically govern the acquisition of private properties for public purposes for development projects in Pakistan.

In the absence of a specific resettlement policy, the Land Acquisition Act (LAA) of 1894 is the de-facto legal instrument governing resettlement and compensation to PAPs. However, it does not provide for the Project to give due consideration to social, cultural, economic, and environmental conditions associated with and affected by resettlement. Although LAA lays down detailed procedures for acquisition of private properties for public purposes and compensation, it does not extend to resettlement and rehabilitation of persons as required by donor agencies including the World Bank. Further, experience in other projects has established that compensation stipulated in the law may not be adequate to provide for equal or enhanced living status to resettled PAPs.

5.1.3 Land Acquisition Act (1894) Procedures

The LAA 1894 regulates the land acquisition process and enables the provincial government to acquire private land for public purposes. Land acquisition is a provincial responsibility and provinces have also their own province specific implementation rules like Punjab Land Acquisition Rules, 1983. The procedure for acquiring land both by Government for public purposes and for company has been described in the Land Acquisition Act.

¹⁸ National Assembly of Pakistan, Constitution of the Islamic Republic of Pakistan (1973)

¹⁹Ibid

²⁰Ibid

When land is required for public purpose by any agency it makes a requisition to the Secretary Revenue and Estate of the Province who will either delegate the District Revenue Officer in case of small land acquisition or appoint a Land Acquisition Collector when the area to be acquired is large as in the case of Dasu Hydropower project. Acting on the request the District Collector/Deputy Commissioner issues a notice under Section 4 of the LAA which is the preliminary notification of intention to acquire the land. The purpose of such notification is only to enable the authorities to carry out a preliminary investigation for deciding whether the land intended to be acquired is suitable for the purpose for which it is needed. The object of the service of the substance of the notice is to afford an opportunity to the affected persons to file objections within 30 days under Section 5 of the Act. With the issuance of this notice the executing agency is granted the authority to enter the notified private land for surveying.

Section 5 provides for the execution agency to pay for the damages caused during the survey work. Recital in notification under section 6 is a declaration which is conclusive evidence that land was needed for public purpose or for company. Section 7 indicates that the Land Commissioner shall direct the Collector/Deputy Commissioner to take order for the acquisition of land. The Collector/Revenue Officer has then to direct that the land is required to be physically marked out measured and planned under Section 8. Section 9 allows the Collector/Deputy Commissioner to give notice to all affected households that the Government intends to take possession of the land. If they have any claims for compensation then these claims should be made to him at an appointed time, while the Section 10 delegates power to record statements of affected persons in the land to be acquired or any part thereof as co-proprietor, sub-proprietor, mortgagee, and tenant or otherwise. Section 11 enables the District Collector to make inquiries into the measurements, value and claim and issue the final "award". The award includes the land's marked area and the valuation of compensation. Collector will then take possession and the land shall thereupon vest absolutely in the Government, free from all encumbrances.

The acquisition process is completed with the announcement of section 16 which announces that the land is transferred to the name of executing agency after the payments are made. Under Section 18 a reference to the court can be made of a dispute with regard to the area or the quantum of the compensation or as to the apportionment of the same amongst the persons interested. In case of urgency, the procedure will remain the same except the notice under Section 5-A. Collector/Deputy Commissioner announces section 17 (Land acquisition for emergency Purpose) just after the announcement of section 4 or 5. This section does not allow the landowners to register any complain against any issue and the land is acquired immediately

5.1.4 Specific Conditions of KPK

The 1894 LAA also applies to the Project area. However, in District Kohistan area, customary laws or *riwaj* are also relevant besides the Federal laws. The customary laws and the traditions were established before application of Land Acquisition Act of 1894 and much before the creation of Pakistan in 1947. The traditional governance system requires community support to maintain supply of critical resources such as land and water. This centuries old traditional governance system is participatory and has roots in the communities. The main feature of this community-governed system is that it identifies and mobilizes notable, knowledgeable and wise men of the community for dispute resolution and decision making concerning management of individual and common resources. This potential of traditional leadership (*jirga*) is relevant and has been used in resolution of disputes related to land acquisition for the project and resettlement related activities. Since land is customarily owned in much of Kohistan District, there is no land market in this tribal area in Kohistan. Moreover, there are no land records systems but tribal demarcation of territory is very distinct and people know each other's territories very well. From operation point of view, in the case of Dasu Project land acquisition, the District Collector of Dasu will establish titled and ownership of land in the project area in consultation with local communities and *jirgas*. This includes (i) mapping of the acquired

area (due to absence of cadastral survey) in consultation with the land users and *maliks*; and (ii) determination of ownership of land for the purpose of compensation.

5.2 RESETTLEMENT EXPERIENCE IN PAKISTAN

The construction of Mangla Dam Project (MDP) and Tarbela Dam Project (TDP) in the 1960s and 1970s respectively, lead to displacement of a large population due to land acquisition. The assessment of resettlement impacts was underestimated and consequently created such conditions that were also unfavorable to the affected people. Later on, in the mid-1990s and early 2000s respectively, the GhaziBarotha Hydropower Project (GBHP) and Mangla Dam Raising Project (MDRP) were implemented and had comparatively well-developed resettlement plans which were in compliance with World Bank and Asian Development Bank guidelines.

Lessons drawn from Pakistan's experiences in dams, the obvious deficiencies of the LAA 1894, and the need to reduce the adverse impacts of large scale hydropower projects on people are all incorporated in the "Evaluation of Past and Present Resettlement Plans in Pakistan, Nov 2011."²¹ Therefore, good practices to be included in the Dasu Hydropower Project are extracted from this document to ensure that project resettlement is positively influenced. The study shows that good resettlement activities were practiced in GBHP and MDRP, while the lessons from resettlement activities of MDP and TDP is that resettlement impact mitigation was not considered adequately.

5.3 HARMONIZATION WITH WORLD BANK POLICIES

The World Bank and other international development financing institutions, have their own safeguard policies to minimize displacement and require time-bound action plans with measures to restore or improve livelihood and income of those affected by development projects. Since the LAA 1894 falls short of these safeguard requirements, the project land acquisition and resettlement policy has been developed and harmonized with safeguard requirements of the financing institutions. The harmonization was carried out through a gap analysis involving the 1894 Legislation the safeguard policy of World Bank. The harmonization has also draws on best practices in dam projects in Pakistan which have already narrowed down the gaps. The specific conditions of Kohistan noted earlier have been taken into consideration. The gap analysis is presented in AppendixFas Comparison of WB OP4.12 and GOP LAA (1894) adopted in Dasu Hydropower Project²².

5.4 RESETTLEMENT FRAMEWORK AND GUIDING PRINCIPLES

The potential impacts of various project components have been identified and established at the planning stage and contained in the RAP. However, the range of impacts are not fully documented – for instance, (i) resettlement site selection and the need for any land acquisition is not clear yet; (ii) downstream area impacts; and (iii) contractor(s) camp area, which may be temporarily required. The RF will guide the Project executing agency to deal with the additional as well as unanticipated impacts in the future. The RF, based on GOP laws, good practices in hydropower projects and WB policies, will be applicable for any additional land acquisition during implementation except for the Transmission Line.²³ The guiding principles of the RF are as follows:

- (i) The project will avoid involuntary resettlement and land acquisition where feasible, or minimized, exploring all viable alternatives.
- (ii) In cases, where land acquisition and resettlement are unavoidable, resettlement and compensation activities will be conceived and carried out as

²¹ Evaluation of Past and Present Resettlement Plans in Pakistan, Nov 2011-under WCAP –MOWP
Government of Pakistan

²² SRMP, Vol. 4 Resettlement Framework

²³ As noted earlier, a separate RF has been prepared for the TI. See *Vol. II Land Acquisition and Resettlement Framework – 500 KV Dasu-Islamabad Transmission Line Project*, NTDC, Feb 2013

- sustainable development programs, providing sufficient resources and opportunities to share in project benefits.
- (iii) All affected persons irrespective of titles will be eligible for compensation for lost assets, relocation assistance and income restoration. .
 - (iv) Customary rights over land by tribal households/groups will be recognized by the District Collector for compensation payments.
 - (v) If community or voluntary land donation is envisaged for community social infrastructure development under any of the project components, this will be done following the WB OP4.12
 - (vi) Displaced persons and communities will be engaged in the planning process and consulted and mobilized in designing their choices and/or any alternative options for relocation and income restoration activities.
 - (vii) The project will invest additional resources on a long-term basis to assist the affected persons in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels.
 - (viii) The compensation for land would be at replacement and current market costs to be approved by local *jirgas* through negotiation with District Collector.
 - (ix) The project will ensure that the processes are fair, open and transparent. All project impacts and mitigation measures will be disclosed to the affected persons through consultation meetings and *jirgas*.
 - (x) WAPDA as the executing agency will enhance its own capacity as well as other related institutions – for example, local land revenue department, district administration – involved in the planning and execution of the various social and resettlement management plan.
 - (xi) WAPDA will hire an independent external monitoring consultant for monitoring and evaluation of social/resettlement implementation plans and provide advice for corrective measures, if necessary, to enhance better performance and implementation of the safeguard plans.

In sum, all compensation negotiated will be at replacement value; depreciation will not be deducted; salvageable taken without costs; all stakeholders will be consulted; particularly project-affected persons will be consulted during the preparation of mitigation plan and over the life of the project. The project will use the established GRC mechanism to address all grievances and complaints emerging out of project intervention.

5.5 CUT-OFF-DATE

Eligibility to receive compensation and resettlement assistance will be limited by the “cut-off” date. In this Project, there are two cut-off dates. The first cut-off-date is the start of the census of the affected communities and villages/hamlets. Since the census surveys were conducted in some 34 hamlets, the date of census in the concerned village will be the cut-off-date for that village or community for “non-land” related entitlements (see [Appendix P](#) for hamlet specific cut-off-date). This census has identified and established the households living in the project area and will be affected by the project. This census survey has also established a record of all losses at household level, including structures, trees and communal structure, with the exception of land whose household level ownership and loss is yet to be established with the development of cadastral mapping and establishment of a household level land record. Therefore, any person entering the project area after the cut-off date is not eligible to receive the agreed upon entitlements. The second cut-off-date is the date for announcement of Section 4 notification under the LA Act of 1894 by the District Collector –Dasu (see Table 5.1). The District Collector has already issued notification of Section 4 in July 2013 for areas involving Year 1 and Year 2 activities. The others are in the process of preparation as per schedule.

Table 5.1: Year wise Construction Activities and Cut-Off dates for Land Acquisition

Sr. No.	Year	Construction Activities	Affected Villages	DC Notification of Section 4
1	Year1	WAPDA Colony & Offices, KKH 01, Access Road (RAR 01), Disposal/Dumping Site	Chuchang, Khoshi, Logro, Komila, Rango, Kass/Zaal, Seo, Barseen, UcharNullah, Gul-e-Bagh/Maidan	12 June 2013
2	Year 2	Quarry Area, Reservoir, KKH Re-alignment and RAR 02	Siglo, Kaigah, Larghani, Pani Bah, Melar, Kuz Kai, Kai Dogah and Seer Gayal	18 July 2013
3	Year3	Reservoir, KKH and RAR 03	Kot Gal, Not Bail, Sluch, Thuti, Waris Abad, Gadeer, Chalashi	To be notified in due course
4	Year4	Reservoir and KKH and RAR 04	Looter and ShoriNullah,, Doonder, Gummo and Cheer Shial, Summer Nullah, LachiNullah, Sazin Camp, Shatial	To be notified in due course

The affected households/villages under Year 1 & 2 have already been notified by the District Collector and notified in official Gazette. Any persons moving into the project area after the first cut-off date or structures constructed after the cut-off date will not be entitled for compensation from District Collector or the Project.

5.6 VALUATION OF ASSETS IN RAP - METHODOLOGY

According to LAA 1894, the District Collector will consider the following in determining the amount of compensation to be awarded for land acquired under the Law:

- (i) the negotiated/market value of the land at the date of publication of the notification (section 4/under LA law)
- (ii) the damage sustained by the person by the loss of any standing crops or trees which may be on the land at the time of taking possession;
- (iii) the damage, if any, sustained by the person interested, at the time of taking possession of land, by reason of severing such land from his other land;
- (iv) the damage, if any, sustained by the person interested, at the time of taking possession of the land, by reason of the acquisition injuriously affecting his other property, movable or immovable, in any other manner, or his earnings;
- (v) if in consequence of the acquisition of the land, the person interested is compelled to change his residence or place of business, the reasonable expenses, if any, incidental to such change; and
- (vi) the damage, if any, bona fide resulting from diminution of the profits of the land between the time of the publication of the declaration and the time of taking possession of the land.

The District Collector will receive assistance from KPK Communication and Works (C&W), Agriculture and Forestry departments to determine negotiated value for land and replacement value prices for assets as structures, and trees/crops. As there is the possibility for the assessed value to be lower than the replacement costs the rates to be used in the valuation of all assets will be reviewed and revised, if necessary, at a *jirga* where the local leading committee of the village committee (VC), the District Collector or representative, and Project Resettlement Office (PRO) established under the Project Director (PD) of the Project Management Unit (PMU). The VCs were established by the Additional Assistant Commissioner (AAC) with recommendation of the village *malik* in every affected village, at the conclusion of and recommendation of the district level *Jirga* conducted in April, 2012.

For the cost estimate purpose, the team has held initial discussions with local communities over the rates to get their feedback. Given the few transactions in Kohistan District, particularly of slope and lands not suitable for buildings, the best way is to turn to

recently completed hydropower projects in Kohistan as reference. Diamer-Basha and KeyalKhwar Hydropower projects are two recent projects financed by the government of Pakistan where land was acquired and compensation delivered under the established mechanism for Kohistan District. Diamer-Basha and KeyalKhwar projects delivered their compensation award in 2009 and 2011 respectively. Before compensation delivery, the compensation rate went through a rigorous evaluation process at district, WAPDA and federal government levels. Eventually, an inter-ministerial level committee was set up to conduct the evaluation. The committee deliberated and recommended a set of compensation rates for the project. These recommended rates were reviewed and approved by the Economic Coordination Committee of the Cabinet of the Government of Pakistan. These compensation rates were then offered and accepted by the local communities. In both projects, the rates were adopted and used after negotiation and agreement with local *Jirgas*. For Dasu, the Keyal Khwar rates, which are more recent, were taken as a reference basis, updated to 2014 rates considering annual escalation and adopted for cost estimation for Dasu Project.

The Dasu Project continued the same practice. It took KeyalKhwar Project rates and updated them to 2014 rates considering annual escalation. These rates are used for costing purpose in the RAP. However, as mentioned above, these rates are not final and they will be presented for consultation and agreement with local communities at *jirgas*. Only the final agreed rates with local communities and the District Collector will be used to finalize and payment of the final compensation.

In sum, the Project will pay the negotiated/replacement values to the PAPs through the District Collector and PAPs will be allowed to take away the materials salvaged from their dismantled houses and shops at no costs, despite the compensation paid. The cash payments will be made through crossed cheque in the name of the recipient PAP in installments linked with progress of construction of houses.

5.7 RESETTLEMENT ELIGIBILITY AND ENTITLEMENTS

5.7.1 PAPs

For relocation and compensation, eligible persons who have been adversely impacted as a result of the project interventions as construction of dam and reservoir, and project associated activities as construction camps and roads are considered as Project Affected Persons (PAPs). Persons losing the right to own or use built-up structures as residences, shop/commercial enterprises, residential, agricultural, uncultivated or pasture land, crops and trees and natural resources such as forest or activities such as gold-washing and other fixed or movable assets either in full or in part, permanently or temporarily and also persons losing jobs or employment opportunities (part or full time) and accessibility and physical connection have all been categorised as PAPs eligible for compensation. In this context persons who are positively affected and are not subject to adverse impacts described above are not considered PAPs.

5.7.2 Eligibility Criteria

All affected persons will be entitled to compensation and resettlement assistance based on severity of impacts and ownership status. Lack of legal documents for customary rights of occupancy/titles shall not affect eligibility for compensation and assistance.

Entitlements of PAPs are considered fewer than two broad categories: (i) entitlements for loss of physical property including houses, land and trees; and (ii) entitlements for loss of income. In the first case PAPs will receive the following compensation:

- (i) assistance in cash amounting to the negotiated value which is the assessed and agreed value of land at the time of payment and would include cost of titling;
- (ii) replacement value of structures together with a moving allowance;
- (iii) market value of trees, crops and perennials;
- (iv) cash grants and resettlement assistance such as shifting and reconstruction allowance, compensation for loss of workdays/income due to dislocation

- (v) additional cash assistance for relocation and house reconstruction for socio-economically vulnerable households such as female-headed households, households below poverty line, households headed by differently-abled and those losing more than 10% of their total income as a result of the Project.

Affected Physical Cultural Resources (PCR) will be conserved and protected at project cost at alternative permanent sites selected by the respective Government Departments.

Resettlement sites have been selected at locations identified by the PAPs (see Figure 6.1 in the next Chapter). In most cases the PAPs in a settlement elected to move as a unit to a higher elevation in the same valley. The Project will build the sites in consultation with the affected communities. In cases, where the project will acquire the land for new sites, the resettlers will pay for the plots at the acquired costs.

5.7.3 Unit of Entitlement

The unit of entitlement will be an Entitled Persons (EP) or a Household. All PAPs will be permitted to take away the salvaged materials free of cost. Entitlement for loss of livelihood have been designed as short and long term and long term income and livelihood restoration programs. These programs have been prepared with the objectives of:

- (i) Income restoration of PAPs,
- (ii) Capacity building of PAPs, and;
- (iii) Re-establishing socio-cultural ties and social capital.

The income and livelihood restoration program is presented in Chapter 7. The entitlements for loss of property is described in the Entitlement Matrix presented below.

5.7.4 Compensation and Entitlement Policy

Entitlements for different categories of losses and their corresponding PAPs have been given in the entitlement matrix. Eligibility of APs will be governed by the entitlement matrix and cut-off dates.

Table 5.1 provides an entitlement matrix for different types of losses and dislocation, based on the Inventory Census. The matrix also includes provisions for any unanticipated impacts arising during project implementation. The mitigation measures in the matrix are consistent with World Bank safeguard requirements and LAA 1894. They also reflect good practices and lessons learnt from earlier dam projects, replacement value for land, dislocation allowance, transfer grant, relocation at project-developed and PAP managed resettlement site, grievance redresses, income and livelihood restoration, independent monitoring etc. Compensation and other assistance will be paid to APs prior to dislocation and dispossession from acquired assets or three months prior to construction activities, whichever is earlier.

In some instances, the payment of compensation will be much later than the date of valuation due to phasing of construction activities and also the phased out nature of the resettlement program. If the payment is delayed more than two years from the date of valuation, the values will be indexed annually before payment.

Table 5.2: Eligibility and Entitlement Matrix

Loss Item 1: Loss of Agricultural Land Used in Terrace Cultivation			
Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Owner(s) of land identified by District Collector through Land Acquisition Survey	1. Negotiated Value (NV) of agricultural land agreed between PAPs and the District Collector 2. Cultivable Plot (1/2 kanal) of land (if available and technically	1. NV will be computed by the District Collector based on the Unit Rates agreed upon at a Jirga comprising Village Committee (VC) and District Collector.	Identified owners will be assisted by the Director-SRU to prepare legal documents in support of their ownership.

	<p>feasible for development) nearresettlement site in the case of the families without residual land.</p> <p>3. Dislocation Allowance of PKR 500/-(Five hundred) per kanal but the total amount will not exceed PKR 20,000./-(Twenty thousand)</p>	<p>The Project through District Collector will pay cash compensation through crossed cheque with assistance from PRO to confirm identity of owner.</p>	
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Implementation Issues:

1. Landowners will be informed of the details of the land acquisition and compensation process, resettlement package and payment procedure.
1. The VCs were established by the Additional Assistant Commissioner (AAC) with recommendations of the village Malik in every affected village
2. The Unit Rates to be used in computing Negotiated Value (NV) for agricultural land will be determined at a Jirga including the Village Committee (VC), District Collector or representative, (called the Price Evaluation Committee, duly formed and notified by District Collector). The valuation process will take into consideration the rates adopted by a recent hydropower project in Kohistan as the basis for negotiation.
3. The community in the project has derived the right to use homestead, agricultural and other land, by virtue of traditional land tenure under their traditional laws and customs. Therefore, formal land ownership documents as title deeds and cadastral maps have not been prepared for land in this area. Therefore, the Land acquisition survey is conducted by the District Collector to establish land ownership and boundaries as these details are required to issue notice under Section 4 of LAA 1894.

Loss Item 2: Loss of Homestead and Commercial Land

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
<p>Owner(s) identified by District Collector through Land Acquisition Survey</p>	<ol style="list-style-type: none"> 1. Negotiated Value (NV) of land. 2. Dislocation Allowance @ PKR 750/-(Seven hundred and fifty) per kanal but the total amount will not exceed PKR 5,000/- (Five thousand). 3. Affected owners will be entitled to a plot either small (5 <i>Marlas</i>) or large (10 <i>Marlas</i>) based on their homestead plot size in the "original" village only in case of sites developed through land acquisition. 4. Provision of basic infrastructures at new resettlement area such as access road, drinking water supply and sanitation, schools, electricity (if available at homestead), mosque, health facility and commercial area free of cost. 	<ol style="list-style-type: none"> 1. NV will be computed by the District Collector based on the Unit Rates agreed upon at a Jirga comprising VC, and District Collector; 2. Project through District Collector will pay for the land. 3. Project is liable to provide basic infrastructures at new resettlement area such as access road, drinking water and sanitation system. Agriculture water supply will be provided if land for agriculture is available near resettlement site. Current electricity systems will be shifted to the resettlement villages; 4. Affected owners will 	<p>Identified owners will be assisted by the Project to prepare legal documents in support of their ownership.</p>

		<p>be entitled to a plot in new resettlement site developed by project either small (5 <i>Marlas</i>) or large (10 <i>Marlas</i>) based on their homestead plot size in the "original" village. These plots will be given free of cost if land for resettlement is provided by the resettling community free of cost and on subsidize rate in case land for resettlement site has to be acquired by the Project</p> <p>5. The affected households moving and settling outside the project resettled developed site will be eligible of getting a special allowance for relocation @ PKR 50,000/- in addition to their actual compensation. This affectee would not be eligible to have a developed plot in resettled.</p> <p>6. Owners will be allowed to take away all salvageable materials free of cost.</p>	
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Implementation Issues:

1. Consultations with Project Affected Persons (PAPs) revealed that most of them did not want to move away from the valley where their present abodes are located and preferred to relocate at a higher elevation within the same valley. This is mainly due to their seasonal migration to different elevations of the valley where they have houses at these different elevations as described in the RAP.
2. PAPs will be informed of the details of the compensation policy, resettlement package and payment procedure.
3. NV will be determined and approved for the project following the procedure as stated under Loss Item 1 above.
4. Land titling will be completed through the land acquisition survey conducted by the District Collector before issuance of notice under section 4.

Loss Item 3: Loss of Communal Property and Resources

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
<ol style="list-style-type: none"> 1. VC for communal property; 2. All villagers losing access to common land areas for pasture and fuel 	<ol style="list-style-type: none"> 1. Negotiated Value (NV) of land will be paid to the VC 2. A plot in community-based resettlement site for each communal 	<ol style="list-style-type: none"> 1. NV will be computed by the District Collector based on the Unit Rates agreed upon at a Jirga comprising VC, and 	<p>VC will be assisted by the Director-SRU to organize legal documents in support of the compensation</p>

wood	<p>property as schools, mosque, burial ground, health center, community center etc.</p> <p>3. The project will construct the structures for common properties in the project-managed resettlement sites selected by the PAPs and the sitting of the common properties will be decided by the VC.</p>	<p>District Collector,</p> <p>2. Project/District Collector will pay for the land of common properties.</p> <p>3. The VC will construct the common properties at each resettlement site with planning inputs and monitoring by Project of each resettlement site.</p>	<p>payments for the common properties.</p> <p>Social and Resettlement Unit will assist and guide the community in utilizing the common land area sustainably.</p>
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Implementation Issues:

1. NV will be determined and approved for the project following the procedure as stated under Loss Item 1.
2. The VC will be responsible for the relocation of community property sites.

Loss Item 4: Loss of Residential Structures

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Owner(s) of the structures identified by District Collector through Land Acquisition Survey	<ol style="list-style-type: none"> 1. Replacement Value (RV) of residential structure. 2. Transfer/relocation Grant @ PKR 100/- (One hundred) per square meter of affected structure. 3. Reconstruction Grant @ PKR 250/- (Two hundred and fifty) per square meter of affected structure. 4. Special Assistance of one-time payment of PKR 5000/- (Five thousand) for each female, disabled, elderly headed and very poor households. 5. Owner will be allowed to take away all salvageable materials free of cost. 6. The households moving and settling outside the project district will be eligible of getting a special allowance for relocation @ Rs. 50,000/- in addition to their actual compensation and other allowances. 	<ol style="list-style-type: none"> 1. Applicable to all structures located within the acquisition areas. 2. District Collector with expertise from Communication and Works Department will determine the RV based on the Unit Rate agreed at the Jirga will compute the RV. When necessary, PRO will be employed to verify structures eligible for RV and other assistance. 3. Project/PMU will pay for structures through District Collector; 4. The Project will provide other resettlement benefits directly with assistance from Social and Resettlement Unit; 5. Owner will be allowed to take away all salvageable materials free of cost 6. The affected households moving and settling outside the project resettled developed site will be eligible of getting 	<p>Assistance in relocation and reconstruction is provided by the Project Resettlement Unit.</p>

		<p>a special allowance for relocation @ Rs. 50,000/- in addition to their actual compensation. These affectees would not be eligible to have a developed plot in resettled.</p>
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Implementation Issues:

1. Land Acquisition Survey conducted by District Collector and Detailed Measurement Survey by Communication and Works Department (C&W) will assess and record details such as floor area and category of structure of to be demolished.
2. The Unit Rate for different types of residential structures will be computed by the Executive Engineer, C&W and approved at a Jirga comprising representatives from all affected villages and District Collector or representative;
3. Compensation must be paid before PAPs dismantles and removes the structures as per civil works requirement at new site of resettlement.
4. The date of service of notice under section 4 and/or Inventory Census will be the cut-off date for all structures to be removed.

Loss Item 5: Loss of Commercial Structures

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Owners of commercial structures identified by District Collector through Land Acquisition Survey	<ol style="list-style-type: none"> 1. RV of commercial structures. 2. Transfer Grant @ PKR 100/-(One hundred) per square meter of affected structure. 3. Reconstruction Grant @ PKR 500/-(Five hundred) per square meter of affected structure. 4. Owner will be allowed to take all salvageable materials back free of cost. 	<ol style="list-style-type: none"> 1. Applicable to all structures located within the project affected area at cut-off date. 2. Jirga of affected villagers and District Collector with expertise from C&W will determine the RV. 3. When necessary, Director-SRU will verify and record structures eligible for RV and other assistance. 4. District Collector will pay for structure. 5. The Project will provide other resettlement benefits with assistance from SRU. 	Assistance in relocation and reconstruction is provided by the project.

Implementation Issues:

1. Land Acquisition Survey conducted by District Collector and Detailed Measurement Survey by Communication and Works Department (C&W) will assess and record details such as floor area and category of structure of to be demolished.
2. Replacement value (RV) of structure will be determined and approved in the process as stated in Loss Item 4.
3. Compensation must be paid before dismantling and removing the structures as per civil works requirement and new site of resettlement.
4. The cut-off date for titled owners and socially recognized owners as stated in Loss Item 4.

Loss Item 6: Loss of Physical Cultural Resources

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
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Department of Archaeology and Museum (DOAM) of KPK, the Legal Custodian of the archaeological resources of the project affected area.	<ol style="list-style-type: none"> 1. Cost of dismantling, moving and reconstruction of the 400 year Mosque at Seer Gayal. 2. Cost of land to relocate the Seer Gayal Mosque 3. Cost of protecting the submerged graves with mud plaster. 4. No rock carving would be affected by the project. 	<ol style="list-style-type: none"> 1. Applicable to the structures identified in the PCR Plan 2. Cost of land will be paid to VC if Seer Gayal would be resettled in community land, otherwise cost of communal land will not be paid. 3. The Project will support local community in performing religious ceremonies before covering the graveyards with mud plaster as agreed by local community well before filling of reservoir. 	The Project will support the DOAM in procurement and protection of rock carvings (if any) at Shatial.
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Implementation Issues

1. The project consultant team has identified and assessed the cost of PCR to be conserved /relocated.
2. Cost of conservation and/or relocation will be paid to the Department of Archaeology and Museum (DOAM) of KPK before dam construction and the DOAM is responsible for implementation before inundation.

Loss Item 7: Loss of Timber and Fruit Bearing Trees

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
<ol style="list-style-type: none"> 1. Owner(s) identified by District Collector through Land Acquisition Survey 2. Socially recognized (by Malik/Mullah and VC) owners of trees grown on public or other land, as identified by Census and verified by Land Acquisition Survey. 	<ol style="list-style-type: none"> 1. RV of Timber trees. 2. Fruit-bearing trees: if the tree is at or near fruit-bearing stage, the estimated current market values of the fruit produce for 3 seasons. 3. Owners will be allowed to fell trees and take the timber, free of cost. 	<ol style="list-style-type: none"> 1. Applicable to all trees and plants located in acquisition area at cut-off dates. 2. District Collector/Project will pay applicable compensation for trees/plants. 3. District Collector with assistance from Department of Forestry and Department of Agriculture will recommend RV of trees and fruits. 4. Development of new nurseries facilities for fruit and non-fruit trees in new resettlement sites 5. Re-plantation of 5 trees per affected tree in the project area (covered under EMP) 	SRU to explain RAP policies regarding compensation for the trees of different categories and size and make the Entitled Persons (EPs) aware that they could take the timber and fruits free of cost.

Implementation Issues:

1. Replacement value (RV) of timber and fruit bearing trees determined on rate basis

negotiated by District Collector and with the affected Community/Jiga will be paid. In addition if the tree is at or near fruit-bearing stage, the estimated current market values of the fruit produce for 3 seasons; and

2. The SRU will provide guidance in re-plantation and post-plantation care programs under Environmental Management Action Plan (EMAP).

Loss Item 8: Loss of Standing Crops

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Cultivators identified by District Collector through Land Acquisition Survey	<ol style="list-style-type: none"> RV of standing crops. Owners will be allowed to harvest of standing crops prior to inundation. 	<ol style="list-style-type: none"> Applicable for all crops standing on land within the acquisition area at the time of dispossession. District Collector with assistance from Director-SRU will pay for crops. District Collector with assistance from Department of Agriculture will recommend RV of crops at harvest. Crops grown after dispossession will not be paid any compensation 	SRU will assist EPs in the process of claiming compensation from District Collector office for preparing necessary documents.

Implementation Issues:

RV of crops will be recommended by District Collector/Department of Agriculture (based on data obtained from District Agriculture Extension Office, Dasu) for those identified through Land Acquisition Survey conducted by District Collector.

Loss Item 9: Loss of Leased/Mortgaged Land

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
1. Identified recognized lessee or sharecropper, with informal tenancy arrangements, including socially recognized verbal agreements.	<ol style="list-style-type: none"> RV of crops. Outstanding lease money back to the lessee by the owner as per agreement. Dislocation allowance @ PKR 1500/-per kanal for actual cultivator to cover the income loss from the land 	<ol style="list-style-type: none"> With customary tenancy agreements, including socially-recognized verbal agreements (certified and approved by the District Collector) owner will receive compensation payment from District Collector. The owner will pay the outstanding liabilities to the lessee/mortgagee under the conditions that: (i) all contractual liabilities are already paid up; (ii) if not, the legal owner will get the residual payment after all liabilities are paid up. District Collector will 	<ol style="list-style-type: none"> SRU will assist in ensuring that the lessee receives all eligible payments. SRU will facilitate the refund of outstanding lease money by the owner to the lessees.

		<p>ensure the payment of RV of crops to the cultivator.</p> <p>3. Dislocation Allowance will be paid to the actual cultivator of the acquired land by District Collector/Project with assistance from SRU.</p>	
Implementation Issues:			
<p>1. Land Acquisition Survey conducted by District Collector will identify each land owner and any persons who presently have interest in the acquired land from formal/informal agreement.</p> <p>2. Any disputes over status of present interest in the land will be resolved through grievance redress procedure. Once resolved, SRU will assist in processing payments of all outstanding liabilities on the land to the appropriate persons.</p> <p>3. RV of crops will be determined by District Collector/Department of Agriculture (based on data obtained from District Agriculture Office, Dasu).</p> <p>4. Dislocation Allowance to cover loss of income will be paid to the tenant as per project-specific policy provisions.</p>			
Loss Item 10: Loss of Income from Displaced Commercial Premises			
Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Any proprietor or businessman or artisan operating in premises, at the time of issuance of Notice under section 4.	<p>1. Grant for Loss of Business @ 10% of District Collector's payment for the structure.</p> <p>2. One time Moving Assistance of PKR 5000/-(Five thousand) for tenants.</p> <p>3. Affected businesses to be relocated to the new market area to be established in nearby resettlement site or along KKH.</p>	<p>1. Business owners will be paid the entitlements after award of compensation by District Collector to the owner of premises.</p> <p>2. The Project will directly pay the entitlement to the eligible affected persons with assistance from SRU.</p>	EPs will be brought under income generation program.
Implementation Issues:			
<p>1. Primary eligibility to be based on businessmen identified by DHC Census and verified by Land Tenure Survey conducted by District Collector.</p> <p>2. All the business operators will be entitled for grant against loss of business and relocation to the new market area. The income-generating program will be implemented by the SRU with assistance from an organization experienced in rehabilitation and livelihood generation activities of resettled persons in similar hydropower projects in the area.</p>			
Loss Item 11: Temporary loss of income (wage earners in commerce & small business and industry)			
Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Regular wage earners employed in businesses, commerce&industry in the affected area.	<p>1. Grant to cover temporary loss of regular wage income @ PKR 200/-(Two hundred) per day for only 90 days PKR 18000/-(Eighteen thousand only) for farm labor; PKR 200/-(Two hundred)</p>	<p>1. EP must have been an employee of landowner or business located in the acquired lands for at least twelve months, as identified by the Census conducted by the Consultants (DHC Census).</p>	<p>1. EPs will be brought under income and livelihood restoration programs to be implemented under RAP, and training programs, including the</p>

	<p>per day for only 90 days PKR 18000/- (Eighteen thousand only) for <i>Gujars</i> employed to look after livestock; PKR 250/- (Two hundred and fifty) per day for only 90 days PKR 22500/-(Twenty two thousand five hundred only); for wage worker at hotel/shops and restaurant Rs.300 (Three hundred) per day for 90 days PKR 27000/-(Two thousand only);</p> <p>2. A one-time grant of PKR 150,000/= (one hundred and fifty thousand) for <i>Soniwals</i> (identified during survey) <i>per</i> households engaged in gold extraction in the project affected area;</p>	<p>2. The resettlement benefits will be paid by Project with assistance from SRU.</p>	<p>current technical and vocational training programs sponsored by the Project.</p> <p>2. Involvement of trained EPs in construction work.</p> <p>3. Involvement of trained EPs in tree plantation and social forestation programs under EMAP.</p>
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Implementation Issues:

Primary eligibility to be based on wage earners identified by the DHC Census and further verified by Director-SRU. Further claims and grievances, if any, will be settled by the grievance redress committee and Director-SRU.

Loss Item 12: Loss of Income from Rented-out and Access to rented-in residential/commercial premises

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
<p>1. Owner of the rented-out premises as identified by Census prepared by DHC and verified by District Collector/Director-SRU.</p> <p>2. Household/person rented-in any such structure as identified by Census prepared by DHC and verified by District Collector/Director-SRU.</p>	<p>One time allowance of loss of income from rent in and rent-out be paid as PKR 10,000.- (Ten thousand) to owner and renter</p>	<p>1. Each renter of affected premises will be entitled for the dislocation allowance. The owners of rented out premises will be entitled for dislocation allowance for each unit of premises rented out to separate families or persons.</p> <p>2. Dislocation Allowance will be paid by Project with assistance from PRO/SRU.</p>	<p>1. EPs will be brought under income and livelihood restoration program to be implemented under RAP.</p>

Implementation Issues:

DHC Census and verification by District Collector/Director-SRU will establish the owner and renter of the residential and commercial premises.

Loss Item 13: Households losing more than 10% of their income (from agriculture or business) due to the project

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Persons losing more than 10% of their income from all sources as identified by Census prepared by DHC and verified by District Collector /Director-SRU.	1. One time Dislocation Allowance @ PKR 10,000/- (Ten thousand) per household.	1.The one time Dislocation Allowance will be paid by Project with assistance from Director-SRU	1. EPs will be brought under income and livelihood restoration program. 2. EPs will also be included in the current project sponsored vocational training program training EPs for employment in project construction activities. 3. Involvement of trained EPs in Project construction work. 4. Involvement of trained EPs in tree plantation and social forestations programs. 5.

Implementation Issues:

1. Loss of income had been assessed as per actual loss of productive resources (land and businesses) by the project and the total income of the affected households from all sources through Census of all affected households.
2. PRO will verify the percentage of loss comparing the actual loss and the total income from all sources of the affected households.

Loss Item 14: Loss of Livelihood (Non-cash Entitlement)

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Households/persons affected by loss of livelihood	<ol style="list-style-type: none"> 1. Free Vocational Training will be provided to the people of affected area. 2. Free horticulture training will be provided to the people of affected area. 3. Training in fish hatchery operations and sustainable fishery will be provided to the people of affected area. 	<ol style="list-style-type: none"> 1. A pro-active program to this end has already been started by WAPDA: local youths are receiving a six-month vocational training program in various lines of work to prepare them for guaranteed jobs in the project construction work or elsewhere. 2. Priority will be given to affected 	<ol style="list-style-type: none"> 1.PAPs will also be included in the current project sponsored vocational training program 2.Training PAPs for employment in project construction activities.

	<p>4. 4.Jobs in the project will be provided to the people of affected area</p> <p>5. 5. Inclusion in area development programs implemented with ADF</p>	<p>households for working in project construction activities.</p> <p>3. List target groups, needs assessment, and selection during implementation,</p>	
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Implementation Issues: Area development programs including sustainable income generation activities and training, micro credit and entrepreneurial training etc. will be planned and implemented by Assistant Director, Training and Livelihood, in the long term, with funding from Area Development Fund.

Loss Item 15: Public Structures such as Hospital/Dispensaries, School, etc

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Concerned Department	Replacement of affected structures	WAPDA and concerned department with the help of District Collector will be responsible for the replacement of the affected public structures at appropriate site with the financial assistance of the project.	After the construction of the affected public structure, the said structure will be handed over to the concerned department who will be responsible for the further maintenance and operation.

Implementation Issues:

Loss Item 16: Unforeseen Adverse Impacts

Unit of Entitlement	Entitlements	Application Guidelines	Additional Services
Households/persons affected by any unforeseen impact identified during RAP implementation	Entitlements will be determined as per the resettlement policy framework	The unforeseen impacts will be identified through special survey by the SRU. The entitlements will be approved by PMU/WAPDA and concurred by the World Bank	APs affected by unforeseen impacts as additional relocation due to blasting and dust, construction associated activities will be accommodated by this compensation by SRU with facilitation by CE/Dy. Project director-Safeguards

Implementation Issues:

The unforeseen impacts and affected persons will be identified with due care as per policy framework and proposed to WAPDA and World Bank for approval including details as quantity of losses, their owners and the entitlements.

6 RELOCATION, SITE DEVELOPMENT AND RESETTLEMENT

This chapter describes the project relocation strategies and community-based self-relocation with full assistance by the project with regard to site development and establishment of basic civic amenities, housing plots and access to the resettlement sites to higher elevations. Attention is also paid to special assistance to vulnerable groups, relocation of community property and physical cultural resources.

6.1 DISPLACEMENT AND RELOCATION

In project planning and designs all necessary efforts have been made to minimize the project impacts and also to reduce impacts on community and assets and disruption of livelihoods. Adequate provisions have been incorporated into the planning and design of the Project to minimize or mitigate any unavoidable impacts to the maximum possible extent. Technical and Social/Environmental teams have worked closely to reduce the social impacts of the Project by means of both design adaptation and innovative technical solutions. As a result the displacement impact has been reduced to the maximum possible.

Out of total 923 affected structures, the highest number of structures being affected is residential structures (83 percent) followed by 9% Community and Public structures. While, the commercial Structures amount to 8 percent of the total structures (See Appendix F “List of HH Affected by Commercial Structures”). Table 6.1 below presents usage wise details of the affected structures. The number of households and other establishments requiring relocation is the highest on the left bank (54 percent).

Table 6.1: Impact on Structures

Location/ (River Bank)	Affected Structures							
	Residential Structures		Public and Community Structure		Commercial Enterprise		Total	
	No.	%	No.	%	No.	%	No.	%
Left	374	87.38	45	10.51	9	2.10	428	46
Right	393	79.4	35	7.1	67	13.5	495	54
Total	767	83.10	80	8.67	76	8.23	923	100

Source: Field Surveys, 2012

6.2 LAND AND RESETTLEMENT IN UPPER ELEVATIONS

During the initial District-level *jirgas* and subsequent *jirgas* in the villages, the affected communities expressed their preferences to relocate to higher elevations within the same valley. The affected villages are currently located within 300m to 500m above the river bank on both sides of the Indus and would be affected largely by the dam reservoir and by camp sites, housing colonies and relocation of the KKH at about 1000m. The common perception among the affected communities is that they whole valley in which they reside and migrate upwards for circumventing extreme weather condition belong to them and therefore don't need formal ownership documents for either their permanent houses just above the river banks or for those above higher elevations.

Relocation and resettlement across the river or downstream is also not a possible option as every tribe or sub-tribe considers them as “very different” than others ethnically, socially and culturally. For the same reason, relocation away from their existing mountains to any significant distance to project-sponsored “model site” or urban settlement will not work in the case of these “tribal” villagers. So, relocation to higher elevation to their places of their own choices is the best solution. Since the KKH is also being relocated above the 1000m level on the left bank, these relocated communities will have access to regular markets and schools and hospitals in Dasu area through relocated KKH..

6.3 PREFERRED OPTION FOR RELOCATION

6.3.1 Resettlement Options and Strategies

The project team has reviewed similar experiences in other hydropower projects in Pakistan and explored various potential resettlement options under this project. These include development of large resettlement sites, small resettlement sites, pockets of small or individual resettlement sites in the valley or resettlement sites of different size at higher elevations. The team also looked at possible settlements out of the district in rural or even urban settings, as some local residents have suggested. These options were taken back to the communities with some initial analysis of advantages, disadvantages and challenges. Based on the community feedback, a general thrust is proposed.

The Project will adopt a combination of resettlement approaches. The community preferred site was well received and considered practical by the *jirgas* as well as at stakeholder workshops where INGOs and NGOs, Government Ministries and agencies were represented. The main thrust (90%) of resettlement is moving up to higher elevations within their own existing communal territory. This will help the community rebuilding as they will remain close and integrated in post-relocation period. There are individual households (10%) who have expressed desire to move out of the project area to join their families and relatives. They want to move on their own as far as Mansehra and Abbottabad due to kinship links in those places and/or availability of cheaper land for resettlement, including more job prospects in the cities. This may be a feasible option on household basis. These choices and responses will be further confirmed at implementation stages. This will be a dynamic process. While maintaining the main thrust, Dasu Management and team will adapt a flexible and open attitude towards people's requests and continue to explore potentials options. But all resettlement options, requests and agreement will be subject to careful technical assessment, review, consultation and agreement with the concerned communities.

Table 6.2: Key Resettlement Options

Option	Strategies	%
Community-based Relocation to Sites in Upper Elevation	<ul style="list-style-type: none"> Relocation to sites of their own choices in higher elevations Community decision-making with regard to site lay out and civic amenities to be established Site-specific Relocation Planning Committee consisting of the <i>malik</i>, representatives of affected families, CE-DPD/Safeguards Site and services development at project costs Free plots to each affected families of the concerned community if land is community land. If land for resettlement would be acquired by project then developed plot will be given at at the rate acquired Shifting and reconstruction grants as per the entitlement matrix 	90%
Self-managed Relocation to "Down country" or in Kohistan other than project developed resettlement site	<ul style="list-style-type: none"> Self-managed individual and/or families to identify destination and or site downstream and cities like Mansehra and Abbottabad districts Project will pay all eligible compensation and benefits prior to relocation Additional 15% of the total compensation for self-managed resettled households. CE-DPD/Safeguardsto maintain the database for self-managed resettled households No plot will be provided to such resettlers 	10%

6.3.2 Timeline of relocation by Project Component

Following table provides details about land requirements of different villages for different components at different times.

Table 6.3: Impacts by Component and Affected Households by Year and Phase

Construction Year	Construction Activities	Affected Villages	Total HHs to be Relocated
Year1	WAPDA Colony & Offices, KKH 01, Access Road (RAR 01), Disposal/Dumping Site	Shaal, Chuchang, Khoshi, Logro*, Ushar Nullah, Barseen, Largani, Gul-e-Bahg, Komila, Kass, Seo,	230
Year 2	Quarry Area, Reservoir, KKH Re-alignment and RAR 02	Siglo, Dogah, Kaigah, Kass, Komila	186
Year3	Reservoir, KKH and RAR 03	Pani Bah, Gadeer, Chalash, Looter, Shori Nullah, Summar, Lachi Nullah, Malar, Kuz Kai, Bar Kai, KuzPurwa, Seer Gayal, Kot Gal, Not Bail,	221
Year4	Reservoir and KKH and RAR 04	Sluch, Serto, Thuti, Waris Abad, Cheer Shial, Doonder, Gummo, Sazin Camp, Shatial	130

**Survey could not be conducted due to local conflict*

6.3.3 Checklist of Existing Amenities in the Villages

Two checklists were administered to (i) assess the existing civic amenities in the affected villages and (ii) feasibility of the proposed site in higher elevations. In all, 27 of the 34 villages have been covered. Decisions for the rest were not confirmed by the village elders and *maliks* at this writing. As evident in Table 6.4, the affected villages have already a range of civic amenities in their villages. Close to two-thirds of the villages have proper access roads and drinking water supply. A large majority of the villages have power and irrigation systems. Nearly every village has a mosque. Only about one-third villages have schools. Two-thirds villages have latrines. There are three BHU in the project affected villages.

Table 6.4: Civic Amenities in the Existing Villages

Available Civic Amenities	Number of Villages	%
Access road from existing KKH	16	60
Internal road in the village	8	30
Drinking water supply	18	67
Irrigation water for terrace cultivation	21	78
Power supply (by local mini hydel)	21	78
Schools for boys and girls	11	41
Mosque	22	82
Playground	2	7
Latrine	20	74
Community graveyard	17	67
Basic Health Unit/Dispensary	3	11
Access to market	12	44
Community Centers	3	11

The project will rebuild all existing amenities that are already there in the villages if compensation would not be paid. If compensation would be paid to community or concerned department then construction would be their responsibility. Additional amenities will be developed where needed so that people in their new relocated sites are better served and assisted with needed social infrastructures.

6.4 RESETTLEMENT SITE, LAYOUT DESIGN AND INFRASTRUCTURE DEVELOPMENT

As stated earlier all the affected communities were consulted on their preferences for relocation. The Consultants and WAPDA Team visited the proposed sites along with village elders and *maliks* for initial assessment about the feasibility of the sites. Initial screening of sites involved (i) access to the sites for construction purposes; (ii) level or altitudes; (iii) availability of land for site development; and (iv) distance from the relocated KKH, (v) water sources and quantities and distance, (vi) slope degree, (vii) avalanche prone risks, (viii) foundation geology, (ix) possibility for electricity supply, etc. Detailed information is available on 27 sites, which will be further assessed by a technical team consisting of engineers, District Collector officer, CE-DPD/Safeguards along with village elders and *maliks* prior to preparing the specific plans for resettlement site development. Figure 6.1 presents the location of the existing villages and the potential sites selected by the affected village elders and *maliks*.

Table 6.5 List of Resettlement Identified Sites

Sr. No.	Affected Villages	Relocation Site	Number of HHs to be Relocated
1.	Chuchang	Chuchang	104
2.	Logro	Logro	Could not be surveyed due to dispute
3.	Khoshi	Khoshi	4
4.	Uchar Nullah	Uchar Nullah	42
5.	Barseen	Tato Pani	36
6.	Melaar	Dhaat	42
7.	Kuz kai	Dhaat	14
8.	Bar Kai	Dhaat	8
9.	Largani	Largani	9
10.	Gul e Bagh	Nasir Abad	30
11.	Kaigah	Dhar	49

A sample layout plan for a resettlement site is presented in Figure 6.2 It includes all basic amenities such as access roads, internal roads, mosques/schools, water supply, play area, latrine, community graveyard, community centre, and basic health units. Data on amenities of existing villages is presented as Appendix G. The layout plans and amenities and other facilities to be provided by the Project will be revealed to the affected households at disclosure consultations and their views and amendments will be incorporated in the final plans. The allocation of plots will be decided by the Village Committee (VC) and *maliks* with the assistance of the Office of the CE-DPD/Safeguards will mobilize the AHs to build their own houses on the plot allocated by the VC using compensation payments received.

6.5 AGRICULTURE AND TERRACE CULTIVATION

Available lands in higher elevation are not always readily cultivable due to the nature of the terrain. Based on preferences by the project-affected persons and feasibility of the site, the Project will assist to develop cultivable terraces/slopes (if additional land available for such activities) around resettlement sites so that some agricultural activities can combine with herding and other sources of income for income and livelihood restoration. The project will also make provisions for irrigation systems bring available waters from the nullahs (stream) through canals or pipes. Necessary mapping will be done for such irrigation opportunities in and around the resettlement sites. The CE-DPD/Safeguards will work with the relocated villagers to develop the terrace cultivation over time.

6.6 GENDER PLANNING AND OTHER VULNERABLE GROUPS

Women are particularly impacted due to land acquisition in the project due to their low level of awareness, lack of access to information, and low levels of training and education. Displacement from housing and dislocation from livelihood resources may put additional burden on them.

In this respect, the policy framework adopted in this RAP specifies that vulnerable groups will receive special attention in planning and implementation of the RAP. Vulnerable groups are female-headed households, differently-abled headed households and those households under the absolute poverty line. The RAP has special provisions for the project affected women and vulnerable groups to meet their needs and support their means of subsistence. Further a Gender Action Plan²⁴ has also been prepared for safeguarding the interest of the women in the resettlement process.

6.7 GRIEVANCES REDRESS MECHANISMS

A grievance redress mechanism will be established to allow affected persons/families appealing against any decision, practice or activity arising out of survey, data collection, compensation rates/awards, and resettlement-related benefits (grievances could also be caused by other social and environmental impacts/issues). Affected households will be fully informed of their rights and of the procedures for addressing complaints under GR procedures during Project information disclosure at various village/community meetings and *jirgas*.

A four-tier GRC system will deal with all cases of grievances arising out of project implementation, particularly focusing on social/resettlement and environmental management and implementation of the Project. The GRCs are to ensure accessibility, fairness and independence of the procedures. The GRCs will be established “bottom top” that would include: (i) village-level GRC, (ii) union council level GRC (iii) Project-level GRC and District level GRC. First, GRC at the village level consisting of local representatives of the affected people and *malik* village elders, project staff, and local government representatives and will receive grievances and resolve locally within a defined timeline. Cases which will not be satisfactorily resolved or affected persons remain aggrieved, the case will be forwarded to union council level GRC and if not solved there, the case then will be forwarded to district level GRC with full documentation and history of the case(s). If at all the previous levels may not solve cases up till the district-level, will be forwarded to the Project-level independent GRC as the prime floor for resolution of the grievances. The disputant can still access the court of law if the decision is not to his/her satisfaction. For any land related grievances that end up in the court, WAPDA will deposit the entire land compensation amount in an escrow account to be paid to the complainant at the decision of the court in his/her favor. Details of the structure and processes, including TORs for each level of GRC, outcome and monitoring systems are available in Vol. 9 Grievances Redress Plan.

6.8 PUBLIC HEALTH

A Public Health Action Plan²⁵ has been prepared for safeguarding the health of the affected community during and after the implementation of the project. This plan will be implemented in the resettlement sites specifically and in the general area of Kohistan District. The Community-based Team under the CE-DPD/Safeguards will be engaged with the community and local public health system to deliver the public health action plan at the community level.

²⁴ SRMP Volume6 Gender Action Plan

²⁵ SRMP Volume 8, Public Health Action Plan

6.9 SOCIAL PREPARATION FOR RELOCATION AND RESETTLEMENT

During the field surveys (May-October 2012) in the Project area, the Safeguard Team, assisted by WAPDA Field Office, was actively engaged in activities related to (i) disclosure of project impacts; (ii) consultation with affected households/communities; (iii) consultation with other stakeholders, including Dasu district administration; (iv) attended local and grand *jirgas* to explain project activities as well as potential measures for mitigations, and finally (v) kept the community engaged with the Team to move forward the project preparation. In sum, the Safeguard Team effectively maintained the liaison between the people and WAPDA. With the surveys completed and demobilization of the Team, a sudden information “vacuum” has been created in the project area.

In view of this, WAPDA has mobilized a new Social Preparation Team/SPT (consisting of a Team Leader, Consultation and Communication Specialist, Relocation Site Development Specialist, Livelihood Specialist, and Gender and Community Health Specialist) in the project area from 01 December 2012. At the pre-construction phase, social preparation will be designed to strengthen the absorptive capacity of affected persons and communities, particularly those who are very marginal such as the affected tribal villagers in Dasu to mainstream development activities. The social preparation phase can help build their capacity over a period of time and help them to identify problems, constraints, and possible solutions. It will also provide the affected communities the confidence, motivation, and opportunity to address resettlement issues. The Team is helping WAPDA on the ground to deal with safeguard tasks involving Pre-Construction Project activities over Year I and 2 of the Project.

SPT is responsible for a variety of tasks to prepare the affected people and communities for timely construction of the project. These include:

- (i) Communications and information disclosure on project benefits, entitlements, relocation planning, livelihood and other measures, including time line for project construction
- (ii) Consultation with stakeholders, elders, and *jirga* members to build local confidence and capacity to deal with the transitions to new resettled communities.
- (iii) Coordination with District Collector in the land acquisition processes, including *jirga* meetings at the village-level to confirm land titles, compensation valuation for land and other assets.
- (iv) Verification and updating of the safeguard database (social and environmental) for implementation purposes.
- (v) Coordination with local administration and WAPDA on the necessary details with regard to mitigation measures, implementation issues and management support for meetings and workshops required for capacity building
- (vi) Coordination with WAPDA Dasu Office to establish various local committees as per RAP and other reports for implementation of the safeguards plans.

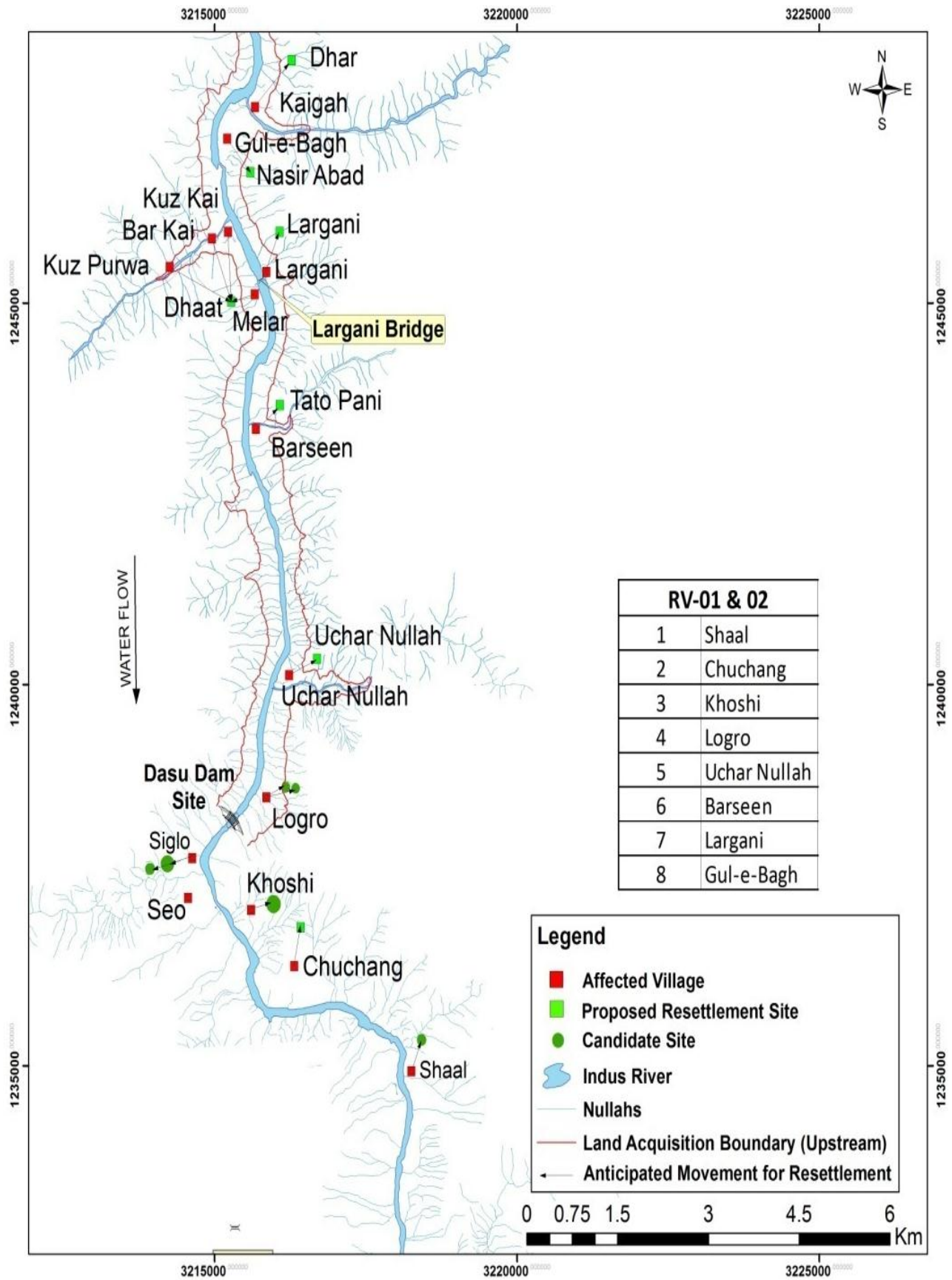


Figure 6.1: Affected Villages and Proposed Resettlement Sites Map

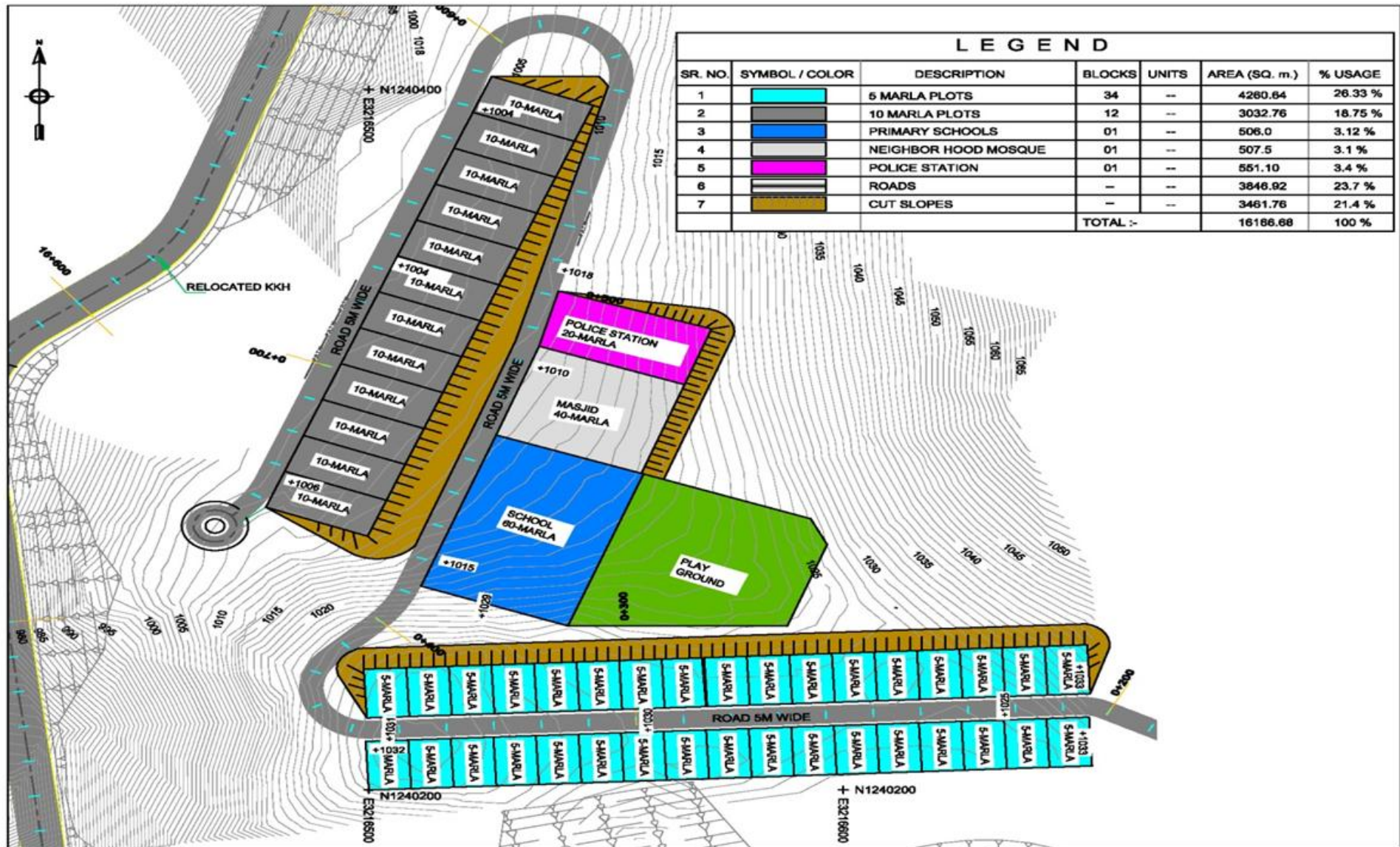


Figure 6.2: Sample Layout Plan for Resettlement Site

7 INCOME AND LIVELIHOOD RESTORATION PROGRAMS

7.1 OBJECTIVES OF THE CHAPTER

Chapter 7 presents (i) current sources of income; (ii) income impact assessment and losses; and (iii) income restoration program for the affected community due to the Project area. A broad assessment of the project impacts on income and livelihood of the project affected households and communities have been made keeping in view the livelihood sources of affected persons as per the socio-economic, baseline census and livelihood surveys. This is followed by measures for planned income and livelihood activities, including alternative income sources, training and capacity building for future employment in the project. A three-phase approach is planned for the income and livelihood restoration plan (ILRP): (i) pre-project/pre-construction phase activities containing compensation payment against land acquisition (ii) the short term plan including assistance to support lost assets, re-establishment of business/enterprises, employment in the project and special attention to vulnerable groups; (iii) the long-term focus on target group beneficiary program, sustainable agriculture, livestock development, and area development plan. The bottom line is to improve and sustain the overall economic conditions of the affected persons and communities to a level better than the pre-project situation.

7.2 LIVELIHOOD ACTIVITIES AT VARIOUS ELEVATIONS

On the basis of livelihood activities at different elevations, the valleys can be divided into four categories (i) Lower elevation (ii) Middle elevation (iii) Higher elevation and (iv) Top hills (Alpine Pasture). These various elevations are correlated to the seasonal migration i.e. alpine pastures, summer, spring, and winter and this also shows the migration pattern of the area. The main reason of this migration to higher elevations and returning to winter houses is due to severe seasonal temperature differences(hot and cold), non-availability of electricity in the higher localities, livestock is prone to extreme weather changes, and also; for growing maize crops on the small terraces at middle and higher elevations. This is a very old traditional system and such practices are said to being existence in the local community since their origin (See Table 7.1).

Table 7.1: Socioeconomic Activities and Resources at Various Elevations

Elevations (masl)		Socio-economic Resources Characteristics	Duration
Alpine Pasture	2500-3000	Animal herds with small sheds, timber, collection of medicinal plants & mushroom	4 months (June -October)
Higher	2000-2500	Summer residents cum cropping zone (White Maize & Sorghum) ,Fruit trees & Business	5motns (April -August)
Middle	1500-2000	Summer & winter residents cum cropping Zone (White Maize), Fruit trees, Business, Govt. & Private jobs	6 months (May-October)
Lower	Less than 1500	Winter & summer residential houses, agriculture land, grazing land & fodder (Oak trees, Wild Olive and other bushes)	6 months (October to March)
	1000	Winter & summer residential houses , agriculture land, grazing land & Fodder (Oak trees, Wild Olive and other bushes)	6 months (October to March)
	800	Winter & summer residential Houses , Agriculture land, grazing land & Fodder (Oak trees, Wild Olive and other bushes) fuel wood tolls and commercial activities	6 months (October to March)

A large majority of the PAPs have livestock and agriculture fields in the middle and upper elevations of their respective village areas. Their livelihood mainly depends upon

Agriculture, livestock, forest business, government as well private employment and some other minor domestic commodity selling.

The people in the affected area having livestock as their main source of economic and social activities move towards upper elevations of their respective villages normally in the month of March from the lower elevations (800-1000m) and; stay for 20-25 days in the middle elevation due to low temperatures at higher and top hill elevations. From the middle elevation abodes these people then move towards higher elevations along with their livestock and remain there for more or less a month. These migrants engage in rearing of livestock, collection of medicinal plants and mushrooms in top hills. They are unable to participate in other social activities. They just get the milk and *ghee* from their animals and sometimes sell the produce in the market. The common rate of one kilogram of *ghee* in the market is PKR 850-900. They usually use *ghee* in the Holy Month of Ramazan. Life of these people at higher elevations is very simple and they consume Maize bread with *lassi* and *ghee* and live in small houses and sheds and even caves.

The seasonal migration in the project area is a common way of life as almost every household has land holding from bank of Indus River to higher elevations areas and; they are quite used to managing their land, seasonal residences, crops as well as the livestock at higher elevations (See Table 7.2).

Table 7.2: Villages with Year Round Residences

Villages with all the year Residence			Villages with 7-8 months Residence		
S. No.	Villages	Bank	S. No.	Villages	Bank
1	Kot Gal	Right	1	Komila	Right
2	Nut Bail	Right	2	Kass	Right
3	Thoti	Right	3	Rango	Right
4	Waris Abad	Right	4	Seo	Right
5	Gummo	Right	5	Siglo	Right
6	Chuchang	Left	6	Maliyar	Right
7	Khoshi	Left	7	Koz Kai	Right
8	UcharNallah	Left	8	Kai Dogah	Right
9	Barseen	Left	9	Seer Gayal	Right
10	Largani	Left	10	Sluch	Right
11	Kaigah	Left	11	Doonder	Right
12	Gul-e-Bagh	Left	12	Cheer Shal	Right
13	ShoriNallah	Left	13	Logro	Left
14	Summer Nallah	Left	14	Pani Bah	Left
15	LachiNallah	Left	15	Gadeer	Left

There are people moving to middle elevations in the month of April and start preparing and leveling land for sowing summer crops in their lands on terraces. There, the major crop is maize along with red and white beans, potatoes, and all kinds of summer vegetables such as pumpkins, okra, wild spinach, carrot and radish. These vegetables are used for consumption and the excess vegetables are usually dried in the sun for winter consumption. . Walnut trees are common in the project area valleys on high elevations and the people earn cash from its sale. Other fruit bearing trees beside walnuts are peaches, apricots, apple and cherry. These are found in low numbers and are used for domestic consumption. These people have their own electricity produced from small micro-hydels. The houses are mainly made by wood and stones.



Figure 7.1: Small huts and grazing land at Alpine Pastures



Figure 7.2: Summer Houses

The business opportunities of the locals are selling and purchasing of locally produced goods. They also keep some animals for milk and *lassi*. Middle elevations are also called spring houses and the community travel to the middle elevations from lower elevation (winter houses) in the month of *May* when the temperature increase in the lower elevations. At middle elevations people cultivate their crops especially Maize (White). They live in semi-structured houses and the living standards are better than at the other two higher elevations. They grow common vegetables for their consumption. Fruit trees especially walnut, apricot, peaches, wild *amloke* and grape (white and black) are commonly available in this elevation.

Life in higher elevation areas is more affordable as there is no requirement for routine expenses for refreshment and undue purchasing. The fuel wood is free, each person bring fuel wood from the nearby forests (see Table 7.3).

7.3 ECONOMIC ACTIVITIES AND RESOURCES AT VARIOUS ELEVATIONS

The data given below was collected during the livelihood survey consultations with the affected people, focus group discussions, local Jirga members, educated groups and personal meetings.

Major crops grown in project affected area are maize and wheat. Pulses include white/red beans, and vegetables including potatoes. The traditional subsistence farming system has been widely practiced for generations in the area. It is the predominant economic system, which in general supplies the people with most of their daily needs. A majority of the people are also engaged in livestock production. Livestock breeding and rearing makes a significant contribution to the family income. Generally, bullocks are used for ploughing. People also use donkeys and horses for transportation in the valleys. Most of the daily consumer commodities such as milk, *ghee*, butter and meat are being produced for self-consumption. The main reason of migration from lower to high elevation is livestock, firewood collection and agriculture because each family and household keep some animals for their domestic and commercial purposes as at higher elevations livestock fed on grass and other plantations and people cultivate lands. Livestock is mostly reared by grazing in the pastures due to limited fodder availability. These cattle barely supply the household needs of dairy products and meat. There is a traditional '*Gujar System*', under which livestock herds graze throughout the seasons in the valleys within the vicinity of their habitations. However, due to scarcity of vegetation, trans-humance system of bringing herds of goats, cows & sheep to high altitude meadows in different regions of different valleys is quite common. (See Table 7.3 and Appendix I)

Table 7.3: Major Income Sources at Various Elevations

Sr. No.	Source of income	Lower Elevation %	Middle Elevation %	Higher Elevation %	Alpine Pasture %
1.	Agriculture	20	45	35	0
2.	Livestock	39	6	10	45
3.	Forest-timber	0.5	4.5	30	65
4.	Forest-fodder	45	10	15	30
5.	Fruit trees	10	45	45	0
6.	Medicinal plants	3	17	20	60
7.	Mushroom	10	20	30	40
8.	Fisheries	55	45	0	0
9.	Business	40	30	25	5
10.	Skilled labor	35	40	25	0
11.	Unskilled labor	25	45	30	0
12.	Government employment	50	45	5	0
13.	Private Job	55	45	0	0
14.	Commercial activities	65	30	5	0
15.	Soniwal (gold extractor)	100	0	0	0
16.	Fuel wood Tolls	65	35	0	0

Source: Field survey and interviews (Nov-Dec 2012)

At higher elevations milk production increase due to better grazing in the mountains and sufficient natural grass found for 3-4 months. The progressive farmers get more *ghee* from their animals and then sell it in the market after meeting their daily requirements. The main source of fodder is maize and wheat and; natural grass from the rangeland. At the lower elevations in summer, there is a lack of fodder for animals.

Table 7.4: Livestock and their Uses at various Elevations

Uses	Buffalo	Cow	Goat	Sheep	Oxen	Donkey	Horse	Poultry	Others
Domestic	25	1796	12006	455	150	312	41	5810	22
Commercial	17	690	5325	171	16	65	8	3040	-
Total	42	2486	17331	626	166	377	49	8850	22

There are forests on both right and left bank of Indus River. They are placed under two forest divisions i.e. Lower Kohistan Forest Division and Upper Kohistan Forest Division. Forests, though essentially located on high elevation, are the most important natural resource of the area and are both private and communal assets. Firstly, they meet the fuel wood requirements of the local inhabitants. Secondly, forests are quite significant source of income for communities; privately owned timber cutting and thereby, selling through government leasing is an income source. The forest share/royalty ratio is 80:20 i.e. eighty percent share goes to community while 20% share goes to the provincial treasury for re-plantation purposes. Although there are no regular orchards in the project area, there are scattered fruit trees in the valleys.

Fruit trees consist of walnut, almond, fig, apricot, pomegranate, mulberry, grapes, peaches, apple and others and usually, most of these are found on high elevations above the inundation level of the reservoir/dam. Walnut and grapes (white and black) are marketable. The cost of one kilogram soft walnut (*KaghziAkhroot*) is PKR 150-200 per Kg in the local market. In local market the rate of Pine nut is PKR 450-500 per kilogram which varies from time to time. Shade trees are grown on the private land inside and around the villages which are significantly considered as the shade during summer, fuel wood and as fodder for the goats and sheep as well as cows and buffaloes.

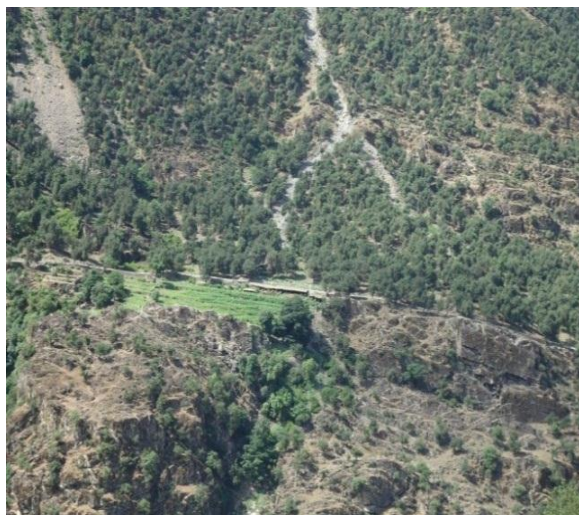


Figure 7.3: Fodder trees at lower elevation **Figure 7.4: Grazing Land at Alpine Pasture**

Collection of Medicinal Plants, Mushroom and Pine nut (*Chalghoza*) is common practice in the area. Some medicinal plants are also collected from the mountains for trade but the proportion in financial returns to the affected community is negligible. One of the plants collected is Black Cumin (*Zeera*) which is found in higher elevation and usually collected during the months of May and June and then sold in the local market. The average market rate is PKR 1250-1350 per kilogram.

Mushroom locally called “*Ghuchi*”, is considered to have medicinal value. They are mostly collected by the people in their respective valleys. People earn money by collection of Mushroom from top hills, high, middle and lower elevations of the area. In local market, the rate of Mushroom is Rs.3000/= per kilogram.

Fishing, although very limited is also practiced in the project area. There is no commercial fishing in the area however some of the fishermen sell part of their catch which is in excess of their domestic consumption. The main fishing spots are Goshali Nullah, Jalkot Nullah, Doogah Nullah, Kandia River, Kaiga Nullah, Summar Nullah, Shori Nullah and Harban Nullah.

Some of the affected persons are engaged in with timber business as helpers or laborers. The most common businesses in the lower elevation are hotels, restaurants and grocery shops and selling of fuel wood. The people harvest oak tree, wild olive and other fuel wood trees from nearby areas and store at sales points on the main KKH. Although the daily sale of fuel wood is sufficient for the family as a livelihood source very few people engage in the business in the project area.

Government jobs are generally of three types: regular jobs on a monthly basis for civil servants, contract staff and daily-wage support staff. The Employees are performing their duties in District Head Quarter at Dasu. Education Department is the main employer in the district while police department is second in providing job opportunities to the local people. Other employers in the area are Culture Department, District Administration, Health Department, Social Welfare and Women Development Department, Population Welfare Department, Fisheries Department, National Bank of Pakistan, Archeology at Darail Bridge. WAPADA provided jobs at Meteorological point at Kandia and gauge observers along River Indus, Palas Valley, Spat Gah, Duber Khwar and Keyal Khwar. People are also working in International and National Non-Governmental Organizations i.e. Catholic Relief Services (CRS), Welt Hunger Hilfe (WHH), Communication for Effective Services Delivery (CESSD), and Sarhad Rural Support Program (SRSP).

7.4 LAND USE AND CROP PRODUCTION IN THE PROJECT AFFECTED AREA

There is no proper system of settlement and revenue record in the whole District of Kohistan. The standard unit of measurement that had been used in the district is "one hand-a local measurement scale" which is equal to 18 inches. This system is very common and selling and purchasing of land is done through this traditional local scale. At present the kanal and acre system is also used but only in commercial areas where the government is acquiring land from the local people through District Collector Office.

Agricultural land is mainly small terraces and the inhabitants grow cereal crops i.e. maize, wheat and pulses which are their main source of food of the local people. There is scarcity of land, yet people practice agriculture wherever possible. Only *Kharif* crops are grown on high altitude lateral valleys, which remain very cold in winter. Both *Kharif* and *Rabi* Crops are grown in the lower elevation along bank of river wherever land is available (See Table 7.5 below).

Table 7.5: Land Use and Crop Production in the Project Affected Area

Crops	Total Area (Kanal)	Yield per Kanal (mond*)	Total annual Production (mond)
Wheat	434	3	1302
Maize	1165	4	4660
Sorghum	8	2.5	20
Vegetables	33	2	65.8
Fodder	1190	3	3570
Grazing land	5540	3	16620
Total	8370	N/A	26237

*mond=40Kg; source: Dasu Agriculture Office, Dec 2012

7.4.1 Affected Land by Types

There was traditional land tenure system in Kohistan up till 1960. Under this system, the land was allotted to the main caste/tribes for five, seven or ten years. On every re-allotment, all shareholders having shares in that land were liable to re-allotment and, were used to move and settle in the villages allotted to them for the next tenure. Land allotment was not permanent because the land differs in composition, location, fertility, availability of water, and accessibility. The traditional land tenure system was abolished in early 1960s. The villagers selected a group of honest people called *Zeeto*. The *Zeeto* divided the whole area into different parts according to their own wisdom and then invited the tribal representatives for a draw. And, with the help of this draw, it was decided that the draw winner tribes/sub-tribes had the right to select an area (already demarcated by the *Zeeto*) at first, second, third and so on depending on the draw priority. After this draw the land was permanently allocated among the tribes. Similarly the *Bandajat* (top hill areas) were also divided among the tribes. These lands were mostly owned by entire tribal commonly. Later on, the lands were distributed to different individuals within the tribes/sub-tribes. Mostly, agriculture land had been divided among individuals however, forest, grazing land and un-cultivated lands are still commonly owned. The income and other resources from the communal land (Timber, firewood, graze land and gravels) are distributed among all the families of the tribes/sub-tribe on manpower basis.

Until now, there is no regular land tenure system in District Kohistan like in other parts of the country. There are no lands records with District Collector. Usually, sale and purchase of land is performed through personal evidence without the involvement of the Revenue Department. The construction of Dasu Hydropower Project will inundate certain areas of agriculture land, barren land and grazing land on lower elevation up to 1000masl. (See Table 7.6)

Table 7.6: Affected Land by types, by Ownership

Land Type	Overall land (ha)	Affected land (ha)	Land Loss (%)	Ownership	
				Individual	Communal
Agriculture Land	7045	143	2	100	0
Barren Land	20869	3126	15	78	22
Grazing Land	11224	280	2.5	84	16

7.5 LOSS OF INCOME SOURCES IN PROJECT AREAS

The people are directly affected by the construction of DHP by the loss of their agriculture land, range land, natural fodder i.e. oak trees, wild olive and some other shade trees which are used as fodder for animals and; fruit/non-fruit trees and businesses including small shops, hotels and fuel wood tolls on main KKH (See Table 7.6 above). Affected land as a percentage of the total land in the area is 2% of Agriculture land, 15% of Barren land and 2.5% of grazing land.

The farmer grows two crops (maize & wheat) on agriculture terraces for their food requirements and the remainders of the crops are used as fodder for their animals. The crop production at lower elevation is not sufficient to fulfill their food requirements. The land below 1000 masl will be lowest however, agriculture land above 1000 masl and between 1500 masl will remain with the affectees which is about equal to the lost agriculture land. Some grazing land will also be affected by the reservoir but, the livestock production and rearing will not decrease due to moving and resettling of the APs on upper elevations.

On main Karakorum Highway (KKH), the people has established spots for fuel wood selling tolls which covers 65% of income (See Table 7.3). These business spots, hotels, shops and restaurants will submerge resulting in income losses as shown in Table 7.7. The data was collected during the Nov-Dec 2013 Livelihood Impacts Assessment Survey.

Table 7.7: Losses of Income Sources at Lower Elevation (800-1000m)

S. No.	Source of income	Income from Livelihood Source (%)	Impact on Income (%)
1.	Agriculture	14.69	1.96
2.	Livestock	5.45	0.00
3.	Timber	25	0.00
4.	Grazing land	2.5	0.75
5.	Fruit trees	1	0.07
6.	Medicinal plants	0.3	0.01
7.	Mushroom	0.4	0.00
8.	Fisheries	0.4	0.16
9.	Business	10.26	0.00
10.	Skilled labor	1.65	0.00
11.	Unskilled labor	15.28	0.00
12.	Government employment	11.26	0.00
13.	Private Job	2.98	0.00
14.	Commercial activities	5	1.00
15.	<i>Soniwal</i>	2.69	1.07
16.	Fire wood	1.14	0.00
Total		100.00	5.01

7.5.1 Village Wise Income/Livelihood Loss

Income/ livelihood losses of four villages have been taken as samples. These villages will be affected from different activities during construction of reservoir (See Table 7.8). The selected villages are Chuchang which will be affected by the construction of WAPDA colony; Siglo village will be affected by developing the Camp Site. Karakorum Highway

bypass will affect village Barseen while village Melaar will be inundated by the reservoir. The communities will totally resettle in other resettlement sites with existing but improved facilities. In village Siglo mostly all livelihood income sources will be affected due to construction of the reservoir, in Seo (Camp Site) only agriculture land, livestock and fruit trees will be affected but private jobs, skilled and unskilled labors opportunities will enhance there.

Table 7.8: Income / Livelihood Losses in Sample Villages

Sr. No.	Name of Affected Village	Major Income Sources	Income & Livelihood Sources at Various Elevations				Loss at Lower Elevation
			Lower	Middle	High	Alpine	
1	Siglo (Dam Site)	Agriculture	Agriculture	Agriculture	Agriculture	0	Agriculture
		Livestock	Livestock	Livestock	Livestock	Livestock	Livestock
		Timber	0	Timber	Timber	Timber	0
		Grazing land	Grazing land	Grazing land	Grazing land	Grazing land	Grazing land
		Fruit trees	Fruit trees	Fruit trees	Fruit trees	0	Fruit trees
		Medicinal plants	0	Medicinal plants	Medicinal plants	Medicinal plants	0
		Mushroom	Mushroom	Mushroom	Mushroom	Mushroom	Mushroom
		Fisheries	Fisheries	0	0	0	Fisheries
		Business	Business	Business	Business	Business	Business
		Skilled labor	Skilled labor	Skilled labor	0	0	Skilled labor
		Unskilled labor	Unskilled labor	Unskilled labor	0	0	Unskilled labor
		Government employment	Government employment	Government employment	Government employment	0	0
		Private Job	Private Job	Private Job	0	0	Private Job
		Commercial activities	Commercial activities	Commercial activities	Commercial activities	0	Commercial activities
		<i>Soniwal</i>	<i>Soniwal</i>	0	0	0	<i>Soniwal</i>
Fire wood	Fire wood	Fire wood	0	0	Fire wood		
2	Seo (Camp Site)	Agriculture	Agriculture	Agriculture	Agriculture	0	Agriculture
		Livestock	Livestock	Livestock	Livestock	Livestock	Livestock
		Timber	0	Timber	Timber	Timber	0
		Grazing land	Grazing land	Grazing land	Grazing land	Grazing land	0
		Fruit trees	Fruit trees	Fruit trees	Fruit trees	0	Fruit trees
		Medicinal plants	0	Medicinal plants	Medicinal plants	Medicinal plants	0
		Mushroom	0	Mushroom	Mushroom	Mushroom	0
		Fisheries	Fisheries	Fisheries		0	0
		Business	Business	Business	Business	Business	0
		Skilled labor	Skilled labor	Skilled labor	0	0	0
		Unskilled labor	Unskilled labor	Unskilled labor	0	0	0
		Government employment	Government employment	Government employment	Government employment	0	0
		Private Job	Private Job	Private Job	0	0	0
		Commercial activities	Commercial activities	Commercial activities	Commercial activities	0	0
		<i>Soniwal</i>	<i>Soniwal</i>	0	0	0	0
Fire wood	Fire wood	Fire wood	0	0	0		
3	Chuchang (WAPDA Colony & Offices Site)	Agriculture	Agriculture	Agriculture	Agriculture	0	Agriculture
		Livestock	Livestock	Livestock	Livestock	Livestock	Livestock
		Timber	0	Timber	Timber	Timber	0
		Grazing land	Grazing land	Grazing land	Grazing land	Grazing land	Grazing land
		Fruit trees	Fruit trees	Fruit trees	Fruit trees	0	0

		Medicinal plants	0	Medicinal plants	Medicinal plants	Medicinal plants	0
		Mushroom	Mushroom	Mushroom	Mushroom	Mushroom	0
		Fisheries	Fisheries	Fisheries	0	0	0
		Business	Business	Business	Business	Business	0
		Skilled labor	Skilled labor	Skilled labor	0	0	0
		Unskilled labor	Unskilled labor	Unskilled labor	0	0	0
		Government employment	Government employment	Government employment	Government employment	0	0
		Private Job	Private Job	Private Job	0	0	0
		Commercial activities	Commercial activities	Commercial activities	Commercial activities	0	0
		<i>Soniwal</i>	0	0	0	0	0
		Fire wood	Fire wood	Fire wood	0	0	0
4	Barseen (KKH Bypass and Dumping Site)	Agriculture	Agriculture	Agriculture	Agriculture	0	0
		Livestock	Livestock	Livestock	Livestock	Livestock	Livestock
		Timber	0	Timber	Timber	Timber	0
		Grazing land	Grazing land	Grazing land	Grazing land	Grazing land	Grazing land
		Fruit trees	Fruit trees	Fruit trees	Fruit trees	0	0
		Medicinal plants	0	Medicinal plants	Medicinal plants	Medicinal plants	0
		Mushroom	Mushroom	Mushroom	Mushroom	Mushroom	0
		Fisheries	Fisheries	Fisheries		0	0
		Business	Business	Business	Business	Business	0
		Skilled labor	Skilled labor	Skilled labor	0	0	0
		Unskilled labor	Unskilled labor	Unskilled labor	0	0	0
		Government employment	Government employment	Government employment	Government employment	0	0
		Private Job	Private Job	Private Job	0	0	0
		Commercial activities	Commercial activities	Commercial activities	Commercial activities	0	0
		<i>Soniwal</i>	0	0	0	0	0
Fire wood	Fire wood	Fire wood	0	0	Fire wood		

7.6 IMPACT ASSESSMENT ON INCOME AND LIVELIHOOD SOURCES

7.6.1 Nature of Impacts

Within the project affected households, the livelihood means and resources are mostly land based activities as agriculture, animal rearing and sale and; wages from timber transportation. The income from selling products from fruit and nut trees and a few home based small shops was supplementary. A few PAPs in the downstream areas earn income from the transportation industry while some PAPs in the upstream villages were engaged in looking after the cultivation and livestock of local *maliks*. As per the findings of the Livelihood Survey, the effects on livelihood sources of PAPs are mainly due to:

- (i) Loss of agricultural production activities;
- (ii) Loss of businesses including small shops, hotels and fuel wood selling spots;
- (iii) Loss of grazing lands;
- (iv) Loss of mature fruit / non-fruit trees;
- (v) Loss of traditional fishing activities (though very limited);
- (vi) Loss of access to sand gold mining on river bed by *soniwal* families

7.6.2 Current Livelihood Sources and Dependence

The current livelihood sources include both livestock and terrace agriculture coupled with several other sources – for instances, , selling of fuel wood, wild olive, collection of pine nuts, collection of hill top mushrooms, terrace agriculture, bee keeping, gold extraction from river beds, and wage labor.

The families losing terrace at the lower elevation will lose one of many sources of income. However, in high altitudes, crops are grown during the summer season. The combination of summer and valley crops is sufficient for family consumption requirements (there is no local market). Assessments based on livelihood survey, suggests that dependence on terrace is limited, but people sustained their incomes combining other multiple sources. Submergence of the river embankments will fully impede the livelihood of the 13 *soniwal* families, who are involved in river bed gold extraction. These families may be given priorities in project jobs.

7.6.3 Income by Livelihood Sectors

In the Project area, the tradition sources of income for people who live in the hills are animal herding, terrace cultivation and non-timber-forest product collection. . Commercial and business activities are limited to people along the KKH. Similarly, there are limited numbers of people who are employed in government and/or private sector jobs. In sum, majority of the people are engaged in livestock production due to low literacy rate and no other opportunities being available to them. They care and rear their animals and whenever the numbers of animals exceed their need, they sell those in the market especially on occasions as *Eid-ul-Azah* (Islamic festival) and purchased some basic things for their daily life. So in other words, we can say that agriculture and livestock are two basic sources of their livelihood with livelihood activities spread from the valley slope land at lower elevations to higher elevations following seasonal migrations. The timber wood is another important source of income of the local people which will not be affected by the project activities, being at higher altitude and cutting is not allowed without having permits from Forest Department Kohistan.

7.6.4 Analysis of Impacts and Options

In view of major income sources at various elevations presented earlier, the overall impact of loss of terrace land in lower elevation project area is limited within the context of income sources at other elevations. Affected land by land type at lower elevation (800-1000masl) in Table 7.7 indicate that 2% agriculture land, barren land (15%) and grazing land(2.5%) will be submerged in the reservoir which will decrease the livelihood source to a lesser extent.

The Project will have positive impacts for that in business work in office or employed otherwise as there will more business opportunities and jobs available with the Project. Also, the demands for wage laborers – skilled or unskilled will go up substantially. Therefore, for these groups, there would be no income losses rather their income will raise. However, for those dependent on small terrace agriculture, there will be income losses from loss of agriculture land.

Livestock remains a major source of their income and a way of life. The herds move with the owners and there is no significance impact on the livestock as a whole expect for loss of pasture land in lower elevations. Therefore, support should be focused more on livestock improvements as a way of income and livelihood restoration. Forest is also the main source of their income and will not be affected by the project intervention being at very high altitude. The cutting of forest trees is being controlled by Forest Department and illegal cutting is prohibited.

No major adverse impacts are expected on fishery,²⁶ but the fishery development activities proposed by the Project will provide good opportunities to use the reservoir for commercial fishing. In sum, overall the impacts on income losses appear to be limited

²⁶ See, SRMP Vol. 11 Downstream Fishing Communities: Baseline and Impact Assessments

and manageable with multiple alternative income opportunities to be provided by the Project.

7.7 NEEDS ASSESSMENT FOR INCOME AND LIVELIHOOD RESTORATION

The feasibility and sustainability of any development program depends on local resources, skills, needs, and market opportunities. Thus for identification and planning of livelihood development programs a preliminary needs assessment was done by the Social team during the census/surveys for the purpose of planning only.²⁷ The survey findings were analyzed to:

- Identify and categorize economic activities of PAPs by gender, age group, education, skills, income, household size, preferences, primarily from census data;
- Identify multiple income and livelihood restoration programs (both individual and group specific);
- Identify potential new income generation activities suitable to the area;
- Identify required skill needs and capacity-building

7.7.1 Multiple Options for Livelihoods

The options and skills so established include agriculture, livestock, fishery, and vocational training program for sustainable employment. These are briefly discussed below.

- (i) Sustainable Agriculture Development Programs: Agricultural land in 34 villages will be lost due to the Project and according to the field survey findings and the PAPs losing land would like to continue with the same livelihood. However, availability of arable land to replace the terraced agricultural land lost by inundation is very limited as most available land in mid and higher level elevations is uncultivable due to the nature of the terrain and some of the arable small plots (terraces) are already used for summer season crops. Therefore, an agriculture development program will be developed and implemented with the assistance of the District Agriculture Department to promote high yielding varieties and intensive cultivation methods. The Extension Officers of the department will be entrusted in providing advice on using quality seed, fertilizer, etc. The department will also provide technical support as soil testing, organic fertilization, crop selection, etc., and also provide inputs and short term credit facilities. The PRO will contribute towards training of farmers and obtaining credit.
- (ii) Introduction of new Technology: At present cultivation and consumption of vegetables is very low probably due to low harvests and shortage of land and these could be overcome by using technological advances in vegetable cultivation. Vegetables grown using the latest techniques of tunnel and green house farming by providing pressurized irrigation, yield 10-12 times more than through traditional methods and will compensate scarcity of cultivable land in new settlements. The CE-DPD/Safeguards will develop a long term programme with the collaboration of the Agriculture Department and National Program of Watercourse Improvement (which has developed the component for installing pressurized irrigation system at farmer's field), for promoting and establishing tunnel and green house farms along with the use of improved seeds and other quality agricultural inputs. Farmers were also advised to grow fruit trees and flower trees. Project will promote and mobilize local affectees in developing nursery for trees, fruit, flower, etc. The tree plantation by project will be done by purchasing tree from these nurseries. Forest Department will also purchase timber trees for plantation in the areas.

²⁷ Prior to finalizing the long-term income and livelihood restoration plan, CE-DPD/Safeguards will conduct another needs assessment survey to update and/or redesign the program

- (iii) Cultivation of Improved Fodder Varieties: Currently, the yield of fodder crops in the area is very low and livestock is mostly reared by grazing in the pastures due to limited fodder availability. At the lower altitudes, especially in summer, there is a shortage of fodder for livestock. Around 80 % of the cultivated land in summer is covered by maize, which is also used for flour production including fodder stock for the domestic animals in winter. The Office of the CE-DPD/Safeguards will organise training and demonstrations for local people in cultivating improved fodder varieties and efficient methods of storing fodder and training will be conducted by the local Agriculture and Forest Departments in collaboration with National Coordinator of Fodder and National Agriculture Research Centre (NARC). Training will include but not limited to substitution of animal fodder by improved varieties, sustainable rangeland management for shepherds and other interested people. The enhanced yield of fodder will lead to better and improved health of live-stock resulting in better meat and milk production leading to increased income levels.
- (iv) Livestock Development: Milk production in Pakistan is 800 to 900 liters per lactation, which is much lower than in the developed world. In the project area the milk production is even much lower than the average of Pakistan. Due to limited fodder availability, the cattle barely supply the household needs of dairy products or meat. In this context, CE-DPD/Safeguards will develop a program where collaboration between local Agriculture and Livestock Department and Animal Husbandry Wing of NARC could facilitate the introduction of improved animal breeds for milk and meat production. National Rural Support Programme (NRSP) would be involved in micro-credit as well as introduction of cooperative livestock farming for milk and meat production. Further, CE-DPD/Safeguards could arrange for the local Agriculture and Livestock Departments to assist the farmers to access the high-paying markets in big cities of the district. Improved livestock breeding and rearing (e.g., vaccination, veterinary services, improved fodder, etc.) and provision of credit facilities will assist in livelihood changes for cultivators who depended on winter cropping at lower elevations as part of their livelihood.
- (v) Fishery: Fishery in the Indus River within the project area is minimal probably due to low fish populations in the fast flowing oligotrophic waters. Subsistence fishery is practiced in the tributaries or *nullahs* and the Indus River during the low-flow period. As a long term income generation activity potential development of commercial fishery could be explored in the reservoir after the trophic level of the water body increases.. If feasible CE-DPD/Safeguards will formulate and implement programs to develop inland fishery in the reservoir.²⁸The CE-DPD/Safeguards will facilitate the development of fishery through mobilizing and organizing the fishermen into cooperatives and obtaining assistance of the Fishery Department of KPK. The CE-DPD Office will mobilise the potential fishermen into cooperatives and facilitate linkages with WAPDA and micro-credit institutions. Besides improving the nutrition level of the villagers, selling at nearby towns could provide additional livelihood avenues for the local communities. Fishery could also be a livelihood option for PAPs whose livelihood was affected partially by the inundation of terrace agriculture land. Development of fish hatchery by locals will be promoted and Fishery Department would be directed to purchase finger lings for stocking in the nullah and reservoir. In this regard training of local would be conducted by Project free of charge.
- (vi) Non-farm sources: This is an important potential area for income generation. With the project construction and future investments in infrastructure along

²⁸ Impact on fishery at community level has been assessed through field surveys. Based on the assessment, fishery development measures in the downstream areas have been suggested. See SRMP Vol. 11 Downstream Fishing Communities: Baseline and Impact Assessments

Indus, there will be lots of opportunities generated for non-farm employment and business opportunities. The project will put in big efforts in vocation training, extension support services, community level mobilization to tap into this potential.

7.8 APPROACHES TO INCOME AND LIVELIHOOD RESTORATION AND ENHANCEMENT

The approach is found on a belief that people require a range of assets to achieve positive livelihood outcomes. No single category of assets on its own is sufficient to yield all the many and varied livelihood outcomes people seek. This is particularly true for poor people whose access to any given category of assets tends to be very limited. As a result, they have to seek ways of nurturing and combining what assets they do have in innovative ways to ensure survival.

The income and livelihood restoration program (ILRP) presented herein has been developed with the aim of improving or at the least restoring to the earlier level the livelihood of all displaced households/persons. In preparing the program the impact of dislocation on livelihoods and adversely affected income was given due consideration. In addition to income restoration, capacity building of APs and enhancing social capital of the affected communities are major objectives of the ILRP. Hence, training and skills development and measures for income and livelihood restoration of those affected have been included in addition to compensation and resettlement benefits. Indeed, WAPDA has already taken a pro-active move to recruit and train local youth in short-term vocational training in various trades to prepare them for employment in the Project or elsewhere in the country and abroad also. Four batches of locally selected persons (total 50) have already completed their training at the National Logistics Cell in Mina in KPK at project costs. This is a six-month training program for skill development in a specific trade. The graduates can also obtain jobs elsewhere, if they so desire. The purpose is to enhance employment and income opportunities for people in Dasu. This will also help local capacity building. Finally, the trained youths will have guaranteed jobs in the project civil works. Many more batches of local youths will be recruited and trained in the coming months until the proposed Vocational Training Centre is established in Dasu by the project.²⁹

7.8.1 Livelihood Development through Use of Compensation

The livelihood development program is designed to help in improvement of the quality of life of affected community by providing them with access to health care, livelihood opportunity and social protection thereby, giving them opportunities to constructively address their potential losses due to the construction of reservoir/dam.

People's livelihoods assets are affected by trends as well as the effects of seasonality over which they have limited or no control. The livelihoods approach is concerned first and foremost with the affected people. It seeks to gain an accurate and realistic understanding of people's strengths and how they endeavor to convert these into potential livelihood opportunities. It is very clear that the source of livelihood development is the land compensation money following a logical process of "land into cash into new income generating activities". These are household based activities and they are to finance the key investments with land compensation money, and the project will support through technical advisory, extension services and institutional support. Land compensation money will be utilized in investments to improve livelihood options i.e. human capital (households-quality education, training, better nutrition and health), natural capital (securing access to better management of natural resources), social capital (social links, relationship, more supportive and cohesive social environment for overall development), physical capital (assets for income generations & basic

²⁹ Deputy Project Director, Dasu Hydropower Project, WAPDA

infrastructures) and financial capital (secure access to financial resources) that will support their livelihood in all respect.

7.8.2 Short Term and Long Term Programs

In the income and livelihood restoration, a two-phase approach has been adopted for the Project in line with the construction plan – for example, Phase I (2014-2019) for Short-term program (during construction of the dam and relocation phase). The first phase will be completed with the commissioning of the dam in 2019. Phase II (starting at 2020 - onward) will be a long-term development plan to be prepared and implemented by the Office of the CE-DPD/Safeguards with funding and assistance from the Project Resettlement Office (Table 7.11)

Table 7.9: Short and Long-Term Livelihood Programs

Construction Stage	ILRP Phase	Income and Livelihood Development Program
Stage 1 Phase I & II Construction of the Dam & 3 Turbines 2014-2019	Phase I Short Term	<ul style="list-style-type: none"> • Assistance to Support lost Income and livelihood • Assistance to Re-establish business/enterprises • Special Assistance to Vulnerable groups • Employment in Construction work • Reservation Area Plantation and Conservation
Stage 2 Phase III & IV (2022-onward)	Phase II Long Term	<ul style="list-style-type: none"> • 10-Yr Project-sponsored Social Development Program through Social Development Fund (SDF) • Needs Assessment Survey • Target-Group Beneficiary Programs • Agriculture Development and Livestock Program
	Area Development Program	<ul style="list-style-type: none"> • Vocational Training and Skill Development • Fishery Development Program • Establishment of new health clinics • Improvements of existing social infrastructures

The short-term livelihood restoration program will focus primarily on the affected households while the long term development plan for both for the affected person/communities and Dasu District at large in the form of area development program. The CE-DPD/Safeguards Teams will be responsible for both phases of the programs. Prior to Phase II programs, the CE-DPD/Safeguards will undertake a needs assessment survey in the project area to select potential beneficiaries of the program and organize any necessary training and orientation. An initial assessment of the feasibility of these programs was undertaken by the Livelihood Specialist of the Social Team.

The RAP has provision for a Social Development Fund in the budget for long-term livelihood development program. The SDF will receive further funds from the area development funds after all policy details are finalized and approved by governments at various levels (national, provincial and district) and use and governance of the funds for area development and benefits of the affected persons and communities. The detailed planning of livelihood activities will be carried out with participation of the local community. It will be developed on the basis of assessment of community needs, requests, skill and preferences as well as options and opportunities available in local areas.

The CE-DPD/Safeguards engaged in the RAP implementation will also be entrusted the facilitation of community mobilization for the detailed planning and implementation of the long-term livelihood program activities. During Phase I, Safeguards staff will be trained in livelihood programs by experienced resource persons, experts and agencies such as Ghazi Barotha Taraqiati Idara (GBTI). The CE-DPD/Safeguards will commence needs assessment during the first 6 months of the ILRP to design long-term income restoration programs. The rationale for the long-term 10 year program is to improve rather than restore pre-project standard of living. The long-term programs will be designed considering the sustainability of income and livelihood based on local resources, skills, and market opportunities.

7.9 SHORT TERM INCOME AND LIVELIHOOD RESTORATION MEASURES

Every PAP losing their livelihood resources or places of income generation as a result of project interventions will be supported with short-term income and livelihood restoration assistance during the transition period. These measures for immediate assistance include the following:

- Payments to compensate for land and other lost assets is settled in full before relocation;
- Provision of temporary/short-term employment in the project or project related construction activities;
- Providing special assistance packages for vulnerable groups such as women, the aged and the disabled;

RAP will also provide the following short-term assistance for income and livelihood restoration through the Office of the DPD/Safeguards.

7.9.1 Assistance to Support Lost Income

PAPs, including those experiencing indirect impacts, will be eligible for assistance for loss of employment/workdays (wage earners) owing to relocation. A one-time cash grant for an estimated number of days will be paid to all such eligible PAPs. The number of days for which payment is made is estimated on the assumption that the PAPs would be able to recover their losses and/or find alternative employment within this period. The recommended specific measures in the form of entitlements of PAPs to compensate their income loss as mentioned in the Eligibility and Entitlement Matrix (Table 5-2).

7.9.2 Assistance to Re-Establish Business/Enterprises

Owners of affected businesses will receive cash compensation and cash grant for loss of business premises plus shifting or moving allowance. This assistance is intended to help them re-establish their enterprises in new locations. All PAPs are likely to continue their previous occupations and commercial activities in new relocated site. In addition, they will be encouraged through allocation of in resettlement sites to re-establish the affected businesses. Project assistance to re-establish business/enterprises in the short-term as mentioned in the Eligibility and Entitlement Matrix (Table 5-2)

7.9.3 Special Assistance to Vulnerable Groups

In relocation programs the need for special attention to vulnerable groups cannot be over emphasized. It is an essential part of the resettlement program to ensure that relocation is coupled with an action plan to enable improvement of their socio-economic status. As vulnerable groups are more at risk of being disadvantaged as a result of involuntary resettlement, special assistance should be provided to them to assist in their rehabilitation at the new settlement as mentioned in the Eligibility and Entitlement Matrix (Table 5-2)

7.9.4 Employment in Construction work

The Project construction activities will require many unskilled laborers and skilled staff for more than 10 years (See Table 7.12). In this respect the Project has already commenced training people from the project area to facilitate employment during project implementation. Further, PMU has already included necessary clauses in construction contracts to facilitate the employment of PAPs and their dependents when workers for construction activities are recruited. Employment in the project construction will act as an added source of income in the income and livelihood restoration processes of PAPs. The construction supervision consultants and independent monitoring consultants will monitor the implementation of this contract condition through monthly statements submitted by the Contractor.

Table 7.10: Job Opportunities During & After Construction of Reservoir

Stage	Types of In-migrant	Number (Direct)	Number (Indirect)	Total
Pre-construction	All types of planning, design, survey, investigations, and construction-related temporary migrants, family/followers	500	400	900
Construction	Construction workers, consultants, and management staff, traders/entrepreneurs, family/followers	3000	4000	7000
Post-construction	O&M/technical advisory staff, family, support staff	1375	1500	2875

7.9.5 Reservation Area Plantation and Conservation

As recommended in the Environmental Management Action Plan the area around the reservoir is to be reserved for conservation. PMU with the assistance of the CE/DPD-Safeguard will organize plantation programs by engaging PAPs especially local poor and vulnerable groups. The selection of tree species, design, plan, and other technical support for conservation plantations will be as per the Environmental Management Action Plan.

7.10 LONG-TERM INCOME, AND LIVELIHOOD RESTORATION PLAN

Phase 1 and Phase 2 of DHP will be implemented for a period of 10 years and therefore, the long-term income and livelihood restoration plan has been designed to be updated and implemented over a period of 10 years. The long term ILRP essentially consists of interventions for sustainable livelihood development. The CE-DPD/Safeguards will implement the ILRP activities in the new settlements and surrounding villages. The long term ILRP will be developed through identification of target group beneficiaries and assessing the needs and feasibility of potential income generating activities. This long-term ILRP will be developed targeting the following groups of PAPs-Target Group Beneficiaries (TGBs):

- (i) Household members of poor³⁰ and other vulnerable (women and differently-abled person headed) households to be relocated;
- (ii) Poor households or the employees and daily wage earners of diminished businesses;
- (iii) Poor households losing agriculture land;
- (iv) Poor households losing small business structures;
- (v) Poor households losing more than 10% of their regular income due to project interventions;
- (vi) Gold extractors (*Soniwal*)

As noted earlier, the Social Development Fund in RAP budget and compensation money received by the PAPs will support the implementation of the long-term livelihood restoration plan. The fund will be used for extending support to the affected households as given below:

- Working Capital
- Capacity building and human resource cost for implementing the program.
- Business development services
- Market Linkages
- Skills development
- Collective Enterprises
- Farm based inputs and extension services.

³⁰ Households having income below the national poverty line (US\$ 73.50 per household per month)

7.10.1 Additional Measure to Support the Affecting Community

As a move to set-up the livelihood programs at pre-construction level, the Project has already incorporated provisions for vocational training centres for male and female PAPs, Fish hatchery, Horticulture farm and Livestock farm in Performa for Cost or PC1 (See Table 7.13).

Table 7.11: PC1 Construction Plan for Livelihood Support

Dasu Contract Package	Program
EWC 01	Establishment of Vocational Training Centre for men
EWC 02	Establishment of Vocational Training Centre for women
EWH 01	Establishment of Fish Hatchery/Tailraces
EWH 02	Establishment of Horticulture Farm -1
EWH 03	Establishment of Horticulture Farm - 2
EWH 04	Establishment of Livestock Farm

Source: Dasu Hydropower Project - PC1 Report (October 2012) prepared for Submission to the Planning Commission of Pakistan

7.10.2 Area Development and Community Support Programs

In addition to (i) improved quality of living at resettlement sites and (ii) livelihood restoration and enhancement program discussed above, the Project is also committed to an area development plan and community support program as good practices. This program is above and beyond the legally mandated compensation and resettlement assistance and already incorporated in the RAP and other social and environmental management plans. The primary purpose of these programs is sustainable resettlement and community development around the Project area by investing additional resources for community and local development. Key programs around the area development plan include (i) provisions for better access to education, health and involving of women in income generating activities; (ii) vocational training for local youth for employment in the project; (iii) improved roads and communication infrastructures; and (iv) community support program. These are further elaborated in Vol. 12 Area Development and Community Support Programs.

7.10.3 Capacity Building

A major component of the income and livelihood restoration program will be Capacity Building of PAPs to restore and improve their income. Training and facilitation of PAPs, particularly those who are unable to find land for winter crops, to engage in other livelihoods will be the focus of this component.

With regard to training a pro-active program to this end has already been started by WAPDA: local youths are receiving a six-month vocational training program in various lines of work to prepare them for guaranteed jobs in the project construction work. Under this program priority will be given to affected households in training and working in project construction activities. Capacity building will not, however, be limited to training for construction related employment. Identification of viable livelihood options will be carried out through a comprehensive need assessment study conducted by the CE-DPD/safeguards which will complement the need assessment analysis conducted through analysis of census/survey findings. Training programs will be designed to suit the identified livelihood options and will be conducted with assistance from Federal and Provincial Government agencies with funding from SDF.

The CE-DPD-Safeguards also will engage in building of social capital in the resettled areas. Community organizations thus established, with assistance from CE-DPD Office will undertake the operation of micro credit schemes funded by SDF and develop linkages with other credit, entrepreneurial and marketing organizations for ensuring sustainability of the livelihood development program.

The Office of CE-DPD/Safeguards will also assist the community organizations to re-establish the cultural and social linkages that were holding the socio-cultural fabric together in the earlier habitations of the PAPs. The community organizations which will be strengthened through the social capital building program of the Safeguard Office will embark on planning and implementing area development programs. Experiences of GaziBaroThaTaraqiatildara (GBTI) will be utilized through contracting GBTI on an advisory capacity.

7.11 INSTITUTIONAL ARRANGEMENT FOR ILRP

The PMU will be responsible for implementation of the ILRP through the Office of the CE-DPD/Safeguards and AD T&L as shown in Figure 8.1. The DD (Resettlement) representing the Deputy Project Director-Safeguards will coordinate and monitor the entire process. AD T&L will be implementing the plan with assistance from other two ADs and relevant government line agencies. The Safeguards Office will establish linkages with micro credit providers and skills development and vocational training institutions, to obtain development services and inputs to the ILRP. The Internal Monitoring Executing Agency will monitor the implementation to identify gaps and shortfalls and recommend remedial action to address shortfall to the Deputy Project Director–Safeguards.

The work of ILRP implementation will be done by AD T&L-Safeguards Office. The said activities will be incorporated as part of the local area development plan(see SRMP Vol. 12Area Development and Community Support Programs) The Construction Supervision Consultant (CSC) will assist the Safeguards Office in supervising and monitoring the activities of Assistant Director T&L at the field level. The contracted external monitoring consultants will monitor the overall implementation approach, process and outcome of the ILRP. Detailed institutional arrangements for ILRP implementation is provided in Chapter 8.

8 INSTITUTION AND IMPLEMENTATION MANAGEMENT

8.1 INTRODUCTION

At the corporate level, WAPDA in 2010 established the Land Acquisition and Resettlement (LA&R) Unit under a General Manager primarily to deal with LA&R activities of the Basha Dam Project. For implementation of SRMP of the Dasu Hydropower Project, the organisation set up presented in Figure 8.1 below has been proposed. The Chief Engineer-Deputy Project Director (Safeguards) has the overall responsibility for implementation of all SRMP and EMAP plans. He is assisted by two Directors (Social/Resettlement and Environment). The Director – Social and Resettlement will be responsible for project level implementation of all resettlement and social development activities and plans. The Director is assisted by five Deputy Directors (Resettlement, Consultation and Participation, Livelihoods, Downstream impacts, Gender and Public Health). Under each Deputy Director (DD), there are Assistant Directors with dedicated Team for specific tasks such as LA Team, R&R, Training and Livelihoods and; so on. The institutional set up and roles and responsibilities of various officials under the set up are discussed in this chapter.

8.2 INSTITUTIONAL FRAMEWORK FOR RAP AND ILRP IMPLEMENTATION

For implementation of the RAP and ILRP of Dasu Hydropower Project, the organizational chart as presented in Figure 8.1 below is proposed.

8.3 ROLES AND RESPONSIBILITIES

The GM-CEO/PD of DHP is the executive head of PMU the entire Dasu Hydropower Project operations. He is responsible for necessary policy, administrative and financial decisions and actions for effective and timely implementation of the project as per the approved framework and implementation schedules. The Deputy Project Director-Safeguards will assist the GM in the execution of SRMP.

8.3.1 Deputy Project Director-Safeguards

As the chief executive officer of the safeguard section of the Project Management Unit (PMU), the Deputy Project Director-Safeguards will be responsible for all required administrative and financial decisions and actions for effective and timely implementation of the Safeguards including the SRMP. The Deputy Project Director may delegate his/her power through the Director –Social and Resettlement Unit or other such officer for overall management & implementation of the Social and Resettlement Management Plan (SRMP)³¹ comprising the Resettlement Action Plan including the ILRP (RAP), and other plans such as Gender Action Plan (GAP), Public Health Action Plan (PHAP), Public Consultation and Participation Plan (PCPP), and Management Plan for Construction-related Impacts (MPCI). With regard to the implementation of the SRMP, Deputy Project Director will have responsibilities as follows:

- (i) Overall implementation of the SRMP as per the agreements signed with the funding agency:
- (ii) Effecting necessary policy, administrative and financial decisions and actions necessary for the successful implementation of the RAP, as per WAPDA and Government of Pakistan decisions.
- (iii) Timely release of funds required for the Project Resettlement Office for implementation of the resettlement program, as per the approved implementation schedule

³¹ SRMP prepared by the Social Safeguards team of DHC consists of 15 volumes addressing all aspects of social and resettlement impacts management of the project.

- (iv) Delegating responsibility and powers to the Deputy Director (Resettlement), for smooth implementation of the RAP

8.3.2 District Collector

The District Collector is the Government administrative authority of the district with the responsibility of land acquisition and compensation of the affected landowners as per the Land Acquisition Act (LAA) of 1894. The District Collector maintains official records and also possesses the Legal/Administrative authority for land titling and therefore assuring eligibility of affected persons for compensation

Cognizant of the fact that the District Collector is under staffed to conduct the land tenure verification and land acquisition process for project affected properties within the project specified time limits, the Project has already allocated resources to enhance the capability of the District Collector Office. DHC social and environmental team members and WAPDA local office were engaged with the representatives of the District Collector during the joint land acquisition survey conducted on affected properties.

During the implementation process District Collector would appoint officers to assist in establishing the identity of the owners of the affected properties and process the documents for compensation payment. These officers, assisted by WAPDA local staff and Social Preparation Team (SPT) members, would be in-charge of land records and revenue.

The District Collector will receive funds from the Project Management and effect payment directly to the affected persons without any delay, by way of crossed cheques, following issuance of notices as required by LAA 1894. For responsibilities of different institutions see Table 8.1

Table 8.1: Responsibilities of Main Stakeholders in RAP Implementation

Sr. No.	Institution	Role Responsibilities
1	WAPDA	WAPDA is the owner of the DHP therefore it is responsible for the implementation and overall supervision. WAPDA is responsible for the implementation of the Social and environment plans. It will also act as internal monitor for effective implementation of SRMP
2	Contractor	Contractor is responsible for the construction works under the social and environment conditions.
3	DHC	DHC are responsible for the planning and design of the project and support to WAPDA in implementation of SRMP..
4	District Administration	Role of district administration is to provide full support and coordination to all stakeholders and keep law and order related to security measures.
5	Community	Local Community is the affectee as well as beneficiary of the project. Community/ <i>Jirgas</i> responsible to resolve social conflicts and to safeguard their rights.
6	External Monitor	External monitoring (MOWP, Planning Commission, EPA, Provincial and Federal Government Agency) will be responsible for the supervision of the project.
7	Independent Monitor	WAPDA will hire the service of a consultants who would be fully responsible for monitoring of SRMP and report to WAPDA Authority and World Bank.
8	IPOE	IPOE is responsible for the review of the project progress and advice there upon.
9	World Bank	World Bank is the donor of the DHP and has supervisory role.
10	Revenue Department	District Collector/Deputy Commissioner is responsible for the evaluation of the lost assets and disbursement of the compensations of lost assets.

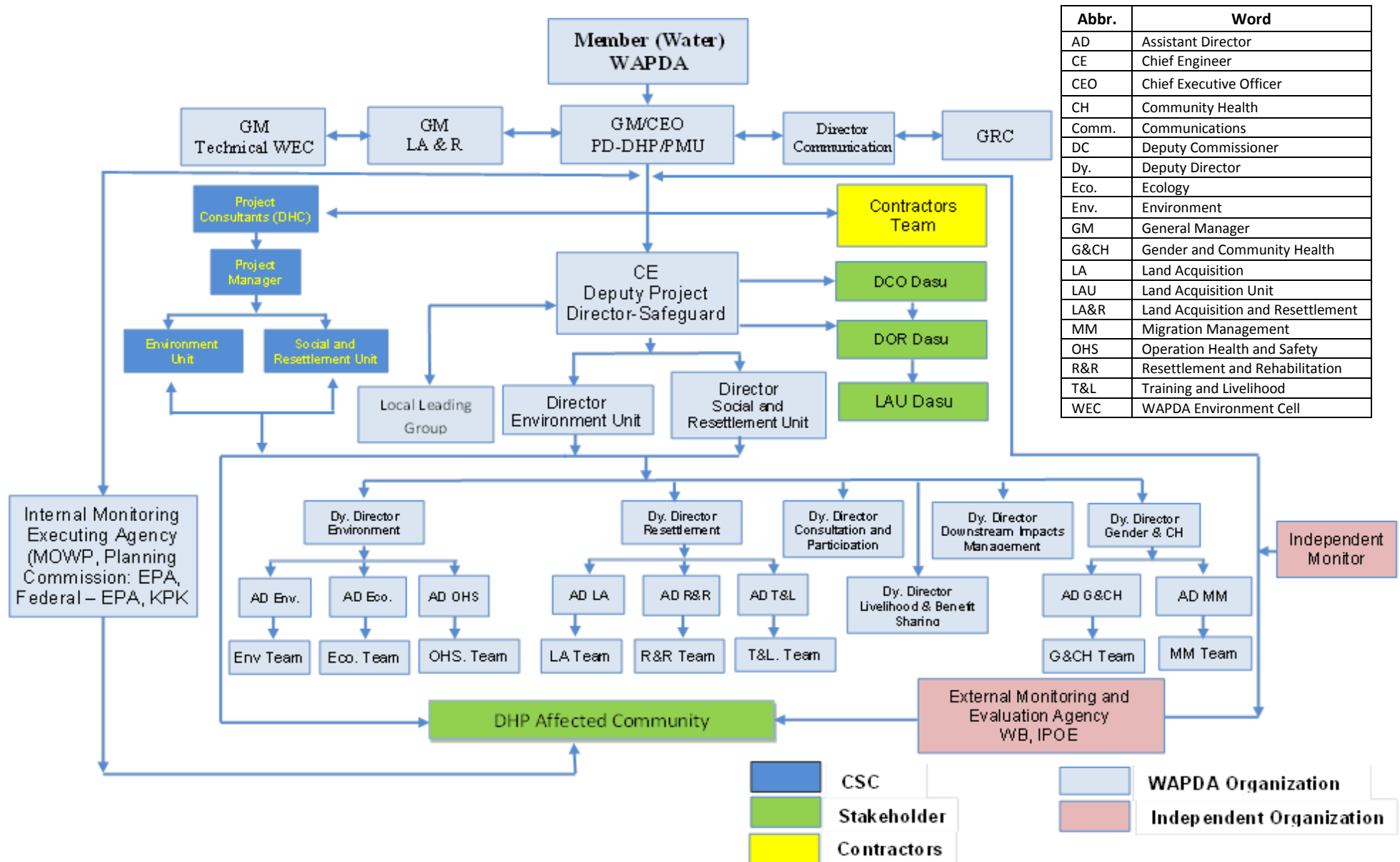


Figure 8.1: DHP Organization Chart for Safeguard Implementation

8.3.3 WAPDA LA&R Unit

As a corporate body and on behalf the WAPDA, the GM-LA&R Unit will conduct periodic monitoring of RAP implementation activities and advise the PD on any action necessary to comply with the implementation requirements.

8.3.4 Leading Group (LG)

The Leading Group is a coordinating and advisory body at project site. It provides a platform for immediate and onsite discussion, consultation and advice in decision-making to respond to project matters. It represents Dasu Project management, Consultants, Kohistan District Administration, local communities and contractors. Its membership consists of two PAP representatives one each from Left and Right banks as recommended by local *jirgas*, District Collector's representative, Deputy Director Resettlement, AD R&R and contractor representatives. The primary tasks of the Leading Group will be:

- Review progress on land acquisition and resettlement activities and schedules
- Review progress in implementation planning and coordination with various agencies
- Advice on construction management issues to avoid any conflicting situations in project implementation
- Review and resolve any coordination issues and complaints at the Project level
- Assist and guide the CE/Deputy Project Director (Safeguards) on social mobilization and social preparation activities.
- Support the Project team in the implementation of the Project in all respects.

The community members will be paid an honorarium for participation and transport costs and the other members of the group will be ex-officio members.

8.3.5 Director Social and Resettlement Unit

The Director of Social and Resettlement Unit (SRU) will act as Project resettlement Office (PRO) and coordinate and manage all activities of SRMP implementation and monitoring. The Director will head the Project Resettlement Office (PRO) in Dasu. The main responsibility for the implementation of RAP rests with the Project Resettlement Office (PRO). PRO will have linkages with the District Collector/Deputy Commissioner Office in Dasu. PRO will be the field office and will coordinate with the Land Acquisition unit of the District Collector Office in regard to expediting the land acquisition and compensation process. In this regard the Director will:

- (i) Organize and manage the implementation of Social and Resettlement Management Plan (SRMP) which includes, inter alia, Land Acquisition Program, Resettlement Action Plan (RAP), Gender Action Plan (GAP), Public Health Action Plan (PHP), Public Consultation and Participation Plan (PCPP), Income and Livelihood Restoration Program (ILRP) and Management Plan for Construction-related Impacts (MPCI) in coordination with other related agencies and in accordance with the agreed time schedule.
- (ii) Overall planning, management and monitoring of the Land Acquisition Activities, Implementation of RAP with ILRP, Gender Action Plan (GAP), Public Health Action Plan (PHAP), Public Consultation and Participation Plan (PCPP) and Income and livelihood Restoration Program (ILRP).
- (iii) Recruit, train, and supervise a team of specialists for the SRU to be engaged in the implementation of RAP and ILRP, under guidance from Deputy Project Director Social and Resettlement.
- (iv) Monitor the implementation of RAP & ILRP, GAP, PHP, PCPP, ILRP and MPCI with assistance from Internal Monitoring Executing Agency and effect modification/improvement when necessary;

8.3.6 Deputy Director Resettlement

The Deputy Director Resettlement will work under the overall guidance and supervision of the Director, Social and Resettlement Unit and will be directly responsible for overseeing the execution of all tasks of implementing the RAP and ILRP with the teams listed in Table 8.1 and led by respective Assistant Directors.

The DD (Resettlement) will:

- (i) Ensure that , AD LA, R&R, and T&L and other agencies carry out and complete activities as per the RAP and within the agreed time schedule;
- (ii) In consultation with the Director Social and Resettlement negotiate and finalize contracts with banks, financing and micro-financing institutions, in the implementation of ILRP as part of the resettlement program and ensure that such arrangements and agreements are working;
- (iii) Ensure that the funds necessary for carrying out resettlement activities in the field are released to field officers, and other agencies (as assigned with resettlement tasks) on time and such activities are carried out without any administrative difficulties;
- (iv) Monitor the implementation of RAP and ILRP apprise the Director Social and Resettlement of required changes and additions to the implementation strategy
- (v) Submit comprehensive periodic progress reports to GM and WAPDA Management through Director Social and Resettlement.

8.3.7 Assistant Director- Land Acquisition

Main duties of AD, Land Acquisition are:

- (i) Arranging for speedy payment of compensation to PAPs through banks on the basis of compensation awards announced by the District Collector office;
- (ii) Monitoring to ensure that entitled compensation is paid to PAPs in time;
- (iii) Liaison with the District Collector and local officers in Dasu responsible for land acquisition;
- (iv) Assisting the PAPs in procuring building material and transportation to site.

8.3.8 Assistant Director R&R

Major tasks:

- (i) With the help of consultant prepare database on loss, entitlement and payment files of individual PAPs to enable effective monitoring and evaluation of RAP implementation;
- (ii) Ensure that all eligible persons are identified, provided with their respective entitlements and are relocated/resettled as per the implementation schedule, in time, with minimum hardships;
- (iii) Liaise with the DC and District Collector offices for the timely acquisition of identified land and arrange timely payment of compensation and ensure that these activities are completed as per the proposed schedule;
- (iv) Ensure that all PAPs are informed of their entitlements and provided with Identification as a proof of their eligibility to resettlement benefits;
- (v) Establish Grievance Redress Committees (GRCs) and ensure its smooth functioning;
- (vi) Monitor the effectiveness of entitlement packages and delivery mechanism and, if necessary, propose modifications to project management;
- (vii) Prepare monthly and quarterly progress reports for WAPDA and funding agencies;
- (viii) Develop the preferred resettlement sites for housing and businesses in the identified valleys with civic amenities and services;
- (ix) Coordinate with Contractors for providing preferential employment to PAPs in the construction activities;
- (x) Conduct Internal Monitoring on RAP Implementation and advise GM-CEO/PD

- (xi) Study and monitor unforeseen adverse effects during and after construction and recommend necessary mitigation measures to the Director Social and Resettlement ; and
- (xii) With assistance from Consultants Prepare Terms of Reference (TOR) for an Ex-Post Resettlement Impact Survey, and assist the Director Social and Resettlement in selecting an appropriate agency to execute the survey.

8.3.9 Assistant Director, T&L

Mani tasks are:

- (i) Arranging exposure tours for various community groups who require livelihood changes;
- (ii) Organizing Skill Development Training for PAPs;
- (iii) Facilitation of employment of PAPs in Project Construction Activities; and
- (iv) Prepare through participatory planning local community development programs, including socio-cultural development of the affected population.
- (v) Arranging for Priority Employment of PAPs in the construction of dam and other associated development activities; (vi) Promoting and establishing proposed livelihood restoration activities; (vii) Assist in Productive Financial Management of Compensation Money by PAPs;
- (vi) Arranging long term sustainable development in the resettlement area by promoting Micro-credit schemes and liaison with banks etc.; and
- (vii) Facilitate the implementation of, identified but not limited to, short and long term livelihood restoration programs presented in Section 7 of this document;

Table 8.2: RAP and ILRP Implementing Teams

Team	Key Task
Land Acquisition Team	Assist APs as well as District Collector for timely payments of compensation for acquired assets for the project
Resettlement and Rehabilitation Team	Work with affected communities in social preparation and mobilization for relocation and resettlement of the affected persons
Income and Livelihood Team	Promoting and establishing proposed livelihood restoration program, including priority employment in project sites
Training and Skill Development Team	Organize skill development training, including identification of affected persons for vocational training at project costs, and facilitation of employment in project construction work

Each team will be led by an Assistant Director experienced in social impact management (Team Leader) and comprise of 2-3 Local Resettlement Workers (LRWs) from local villages and/or affected communities. Preference will be given to those who have already worked as local consultants and investigators in the baseline and census/inventory surveys, gender, and communication surveys conducted by DHC to prepare the SRMP. The census/survey work has already sensitized them to socio-cultural and resettlement issues in the project and developed necessary skills and capacity for the implementation work. The LRWs will be the principal contacts in the villages in their respective fields of work.

Each team is tasked with specific activities dealing with the implementation of SRMP. The number and composition of the teams may be changed depending on ground situation.

The activities of PRO will be carried out in two phases. In Phase I (2014-2019)³², all legally mandated activities and plans such as payments of compensation, R&R, and all social development activities will be completed for all components. In Phase II (2020-beyond), PRO will initiate long-term social development programs involving all those resettled under the project as well the new in-migrants so that the benefits of the project are shared equitably by all. As noted earlier, a Social Preparation Phase (2013) will precede Phase I & II activities.

³² The dam project is planned to commence operation in 2019

Activities of the teams that will be implementing the RAP and ILRP are further summarized below;

Land Acquisition Team(LA Team): Key activities include (i) facilitation of the arrangements for speedy payment of compensation to PAPs through banks on the basis of compensation awards announced by the District Collector office; (ii) conducting monitoring to ensure that entitled compensation is paid to PAPs in time; (iii) liaison with the District Collector and local officers in Dasu responsible for land acquisition to expedite the payment and acquisition process; and (iv) Assistance to the District Collector to transfer the land title in the of WAPDA.

Resettlement & Rehabilitation Team (R&R Team): Tasks include (i) facilitation of the arrangements for speedy payment of compensation to PAPs through banks on the basis of compensation awards announced by the District Collector office; (ii) conducting monitoring to ensure that entitled compensation is paid to PAPs in time; (iii) liaison with the District Collector and local officers in Dasu responsible for land acquisition to expedite the payment and acquisition process; and (iv) Assistance to the PAPs in procuring building material and transportation to site, (v) Monitoring the grievance redress process and facilitating in speedy redress; (vi) Mobilization of Village Committees (VCs) in planning resettlement sites and communal property; (vii) Organize and mobilize PAPs for settlement at the self-managed settlement sites; (viii) Monitor provision of amenities and other facilities as communal property and resources, irrigation water, land preparation for terrace cultivation etc.; (ix) Planning and facilitating the movement of PAPs to the resettlement/relocation sites of their own choice and overseeing the issuance of letters/certificates for allotment of land; and (x) Assisting in transportation of salvaged material for the dismantled structures to resettlement sites;

Training and Livelihood Team (T&L Team): Tasks include (i) Arranging exposure tours for various community groups who require livelihood changes; (ii) Organizing Skill Development Training for PAPs; (iii) Facilitation of employment of PAPs in Project Construction Activities; and (iv) Prepare through participatory planning local community development programs, including socio-cultural development of the affected population.; (v) Promoting and establishing proposed livelihood restoration activities; (vi) Assist in Productive Financial Management of Compensation Money by PAPs; (vii) Arranging long term sustainable development in the resettlement area by promoting Micro-credit schemes and liaison with banks etc.; and (viii) Facilitate the implementation of, identified but not limited to, short and long term livelihood restoration programs presented in Section 7 of this document;

8.4 TRAINING AND CAPACITY BUILDING

Subsequent to recruitment of staff for PRO they will be provided with training and capacity building. WAPDA will recruit PRO staff and conduct a week-long training at the project site. Further, there will be study tours and exposure trips for project staff within and outside the country. In Year 1, all PRO staff will be taken to Ghazi-Barotha Hydropower Project (GBHP) on a weeklong exposure trip to see various socio-economic programs conducted by the Ghazi Barotha Taraqiatildara (GBTI) programs during project construction and post-project periods. Since the visit and “lessons learned” from GBHP would be helpful for PRO staff in social and resettlement implementation and management.

8.5 ROLE OF CSC CONSULTANTS

Resettlement specialists of the Construction Supervision Consultant (CSC) Team, acting on behalf of the DD (Resettlement) and DPD will ensure that sound methodologies and practices are followed in the implementation of RAP. The consultants will also assist in establishing the PRO and training its staff. The consultants will advise on required changes in the modalities of the implementation work, participate in meetings with PRO, and DD (Resettlement) and assist D (Resettlement) and RMU in monitoring the work of

the PRO. The consultants will also review, on behalf of PD, the implementation progress reports, submitted by the contracted PRO on a regular basis. The consultants will also assist the PD in Identifying and selecting the Independent Monitoring Consultants whom would be responsible for monitoring, guiding and evaluation of of SRMP and project progress and further would be responsible for review and approval of design prepared by CSC.

8.6 PARTICIPATORY RESETTLEMENT IMPLEMENTATION

Dasu Hydropower Project is a huge investment in Kohistan District and it faces complex challenges, particularly in its social programs, with many stakeholders involved. Its initial resettlement planning presents a general framework over the social issues to be addressed, its strategy and approach for mitigation and development and the overall implementation setup covering management, coordination, monitoring and evaluation. This general planning document will be further elaborated into detailed annual implementation programs with specific actions at community and household level, budget commitments and defined timelines. This is a dynamic process and requires active participation of the primary stakeholders, particularly the communities and households involved. This is particularly so in the decision-making and implementation of the community-specific relocation plan, the community and household level income-restoration program, public health program and gender interventions. This entire process will follow a participatory approach. The specific mechanisms are described in various relevant sections of the SRMP.

8.7 CAPACITY BUILDING FOR RESETTLEMENT MANAGEMENT

Involuntary resettlement should be carefully managed with frequent and regular monitoring and review of the efficacy of the resettlement program and its implementation. The key players involved in the implementation of the resettlement plan are listed below.

- WAPDA/PMU as the Project Implementing Agency;
- LA&R and Environment Cell of WAPDA;
- Deputy Commissioner/District Collector Officer;
- Department of Fisheries, Forestry, Agriculture, Communication and Works, and Banks and Credit institutions; and
- Field level implementation teams.

Active participation of these organizations/agencies is essential for implementing the time-bound (a) Land Acquisition Plan (b) Resettlement Action Plan (c) Gender Action Plan (d) Public Health Action Plan, and (vi) Income and Livelihood Restoration Program. Thus, these organizations should have adequate capacity and capability to impart required assistance to PRO during the implementation process. Therefore, it is imperative that the capacity of these organizations/agencies is enhanced through field level coordination meetings and workshops to share implementation experience for future guidance and improvements.

8.8 DATABANK FOR RAP IMPLEMENTATION AND MONITORING

The PRO established to coordinate and implement the RAP and ILRP, with the assistance of the CSC consultants, will establish an electronic databank and document archive as the main source of information on all resettlement-related data for implementation and monitoring purposes. In this respect, the comprehensive Databank of IOL and census/surveys conducted for planning purposes will be made available to the PRO Databank Manager. In addition to the above databank, the PRO data base will include information on land and property values, PAP entitlements, compensation received by PAPs, resettlement site development, income and livelihood restoration measures implemented and resolution of complaints received by GRC.

PRO will develop a Management Information System (MIS) to monitor and verify the progress in the field with geo referencing and digital systems. A general outline of the indicators used in the MIS is presented in Table 8.3.

Table 8.3: General Outline of MIS and Monitoring Indicators

Basic information on project-affected households	<ul style="list-style-type: none"> • Location and ID number of the household • Gender of the household head, household composition • Education level, skills etc. • Income sources
Asset lost	<ul style="list-style-type: none"> • Inventory of assets lost (e.g., land, structures, crops, tree) • Loss of wages, income, employment
Eligible compensation	<ul style="list-style-type: none"> • Compensation for lost assets • Resettlement benefits – house plot, house construction grant, shifting cost, subsistence allowance, special grant for female-headed households
Income Restoration Program	<ul style="list-style-type: none"> • Employment in construction sites • Training program for alternative income • Micro-credit loan
Information campaign, consultation, grievances resolution	<ul style="list-style-type: none"> • Distribution of brochure regarding policy and entitlements • Community meetings, consultation meetings, <i>jirgas</i> • Resolution of grievances by GRCs

8.9 PROPOSED RAP IMPLEMENTATION SCHEDULE

A time-bound implementation schedule is presented in Table 8.4. The implementation schedule has been formulated to accommodate different phases of the Project and therefore different times of relocation as necessitated by the civil works. Social preparation, particularly information dissemination and maintaining a constant dialogue with the PAPs, will commence from the end of 2012 and continue into 2013.

As per the phasing of the project relocation in the areas where land is required for construction of the Colony, Camp, KKH realignment and Access roads will be required during the first year (2014) and this is reflected in land acquisition activities in the Implementation Schedule (Table 8.4). The relocation of the PAPs in the reservoir area will be required towards the end of the 2016 and the schedule has taken these into consideration. The compensation payments if delayed for more than a year after computation will be indexed considering rate of inflation and rates prevailing at the time.

The Implementation Schedule is for the first 7.5 years of the Project incorporating the first two phases (under Stage 1 of the construction Schedule). However, the Monitoring of Impact on PAPs and implementation of the livelihood development plan.. The presented schedule is subject to change with the outcomes of the project approval process.

Table 8.4: Implementation Schedule

No	IMPLEMENTATION ACTIVITY	2013				2014				2015				2016				2017				2018				2019				2020-2023						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	20	21	22	23			
	LAND ACQUISITION ACTIVITIES																																			
	Submission of Land Acquisition Plan to DRO																																			
	Provide Resources, assist in pre-land acquisition survey																																			
	Processing of Land Acquisition Requisition by DRO																																			
	Issue of Section 4 Notice and verification survey																																			
	Estimation of LA fund requirement and placement with DRO																																			
	Transfer of Land Other areas																																			
	Transfer of Land: Reservoir area																																			
	SOCIAL PREPARATION																																			
	Consultation and information dissemination by consultant/ PD																																			
	Establishment and mobilisation of DPTI																																			
	Disclosure of RAP to PAPs																																			
	DPTI assistance to PAPs for collection of Cash Compensation																																			
	Establishment of GRC																																			
	Confirmation of EPs and issuing identity papers																																			
	Determination of entitlements																																			
	PAYMENT OF COMPENSATION																																			
	Coordination with DROffices on land acquisition																																			
	Prepare application for cash compensation for land and trees																																			
	Assist PAPs in cash compensation collection process																																			
	Opening of bank accounts by PAPs																																			
	Receipt of compensation for land and trees by PAPs																																			
	Receipt of payments for structures by PAPs																																			
	RELOCATION																																			
	Payment of transfer and Reconstruction grants																																			
	PAP mobilisation for moving and reconstruction of houses																																			
	Reconstruction and relocation																																			
	Monitoring relocated households																																			
	GRIEVANCE REDRESS																																			
	Complaints from aggrieved PAPs																																			
	Investigate and action																																			
	Monitoring resolution of complaints																																			
	MONITORING																																			
	Design, Develop and Operate Automated MIS																																			
	Internal Monitoring																																			
	External Independent Monitoring																																			
	ILRP IMPLEMENTATION																																			
	Hiring of assisting Organisation																																			
	Update and develop ILRP																																			
	Implementation of ILRP																																			
	Monitoring ILRP Implementation																																			

9 LAND ACQUISITION AND RESETTLEMENT BUDGET

9.1 INTRODUCTION

In preparing the budget for RAP, the costs for land acquisition and resettlement have been estimated using land values negotiated and agreed at Jirga community consultations and replacement values of structures agreed at *jirga* meetings. Estimates of additional assistance for loss of income and vulnerabilities are based on the value used in the entitlement matrix. This budget is indicative of outlays for different expenditure categories assessed through Field Surveys carried out in May-October 2012. Nonetheless, these costs may have to be updated and adjusted when District Collector finalizes the Detailed Measurement Survey (DMS) and also, if any additional impacts arise during implementation. Therefore, budgeting will remain a dynamic process for cost estimation even during implementation. The Project will be committed to mobilize additional funds, if required.

Negotiated and replacement values will be indexed when the payment is affected after a year from the date of valuation. All land acquisition and resettlement funds will be provided by the Project. Relocation and Resettlement of PAPs is considered as an integral component of the project costs and funds for rehabilitation and training of affected persons will be provided under the income and livelihood restoration program developed as part of the RAP. The project will establish the CE-DPD/Safeguards Office as described earlier. The Safeguard Office will also establish a Social Development Fund (SDF) with initial grants from the Project.

The Project will ensure that the land acquisition and resettlement funds are delivered on time to the District Collector and resettlement account of the PRO, respectively. The Project will also ensure that funds for entitlements under the RAP are fully provided to PAPs prior to commencement of civil work. Compensation and resettlement funds will be provided to the PAPs in two separate ways: (i) Compensation under law for acquisition of land will be disbursed through the District Collector; and (ii) Additional assistance for resettlement of PAPs will be disbursed directly by PRO with the assistance of the respective Team.

9.2 RELOCATION AND RESETTLEMENT BUDGET

The project budget covers all identified and planned categories of costs. It covers compensation, relocation, assistance and various allowances, livelihood development support schemes, area development, training and capacity building as well as management, staffing and operating costs for various institutional setups, including monitoring and evaluation. Considering the dynamic nature of the program and the fact that some of the programs are yet to be designed in detail, the budget has included a 25% contingency.

For resettlement compensation cost estimation, the inventory losses information were collected through field surveys at household and community level, and covers all categories, including structures, trees, crops etc. The land losses information is estimated. With fixed project zones and boundaries identified and market, the total associated land areas to be lost are identified and confirmed for various project activities, using GIS tools and mapping, design maps and verified in the field. These generated the total quantity and categories of land losses. Due to the fact, there are few transactions in Kohistan district, the compensation rates referenced the rates in recent compensation awards (2011) in KeyalKhawar Project which referenced Diambasha Project land compensation rates which were awarded in 2008. In both project, the rates were adopted and used after negotiation and agreement with local *Jirgas*. The Dasu Project took KeyalKhawar Project rates and updated them to 2014 rates considering annual escalation. These rates are used for costing purpose in the

RAP. However, as mentioned above, these rates are not final and they will be presented for consultation and agreement with local communities at *Jirgas*. Only the final agreed rates with local communities will be used to finalize and payment of the final compensation. The Project will develop resettlement sites in higher elevations in consultation with the affected tribes. These resettlement sites will have access roads and basic civic amenities such as water, power, schools and mosques and other amenities. The total estimated cost of implementation of RAP is PKR 37880.74 million (US\$ 398.74million). The detailed cost break-up is given in table 9.1.

Table 9.1: Summary of Land Acquisition and Resettlement Budget

Sr. No.	COST ITEMS	Unit	Unit Rate (PKR)	Quantity	Total Cost (MPKR)	Total Cost (MUS\$)
1 - COMPENSATION & ALLOWANCES						
1.1	LAND					
COMPENSATION						
1.1.1	Grazing/ Rakh	Kanal*	262,000	6,253	1,638.30	17.25
1.1.2	Barren (GhairMumkin Stone)	Kanal	100,000	47,582	4,758.16	50.09
	Barren (GhairMumkin)	Kanal	190,000	21,652	4,113.96	43.30
1.1.3	Agriculture	Kanal	760,000	3,138	2,385.11	25.11
1.1.4	Residential	Kanal	325,000	603.834	196.25	2.07
1.1.5	Commercial	Kanal	325,000	112.2	36.47	0.38
Sub-total (Basic Compensation)					13,128.23	138.19
	Escalation of 2 Years at 6.5% for 2013 Rates				1,762.14	18.55
	Tax (@2%)				262.56	2.76
	Service Charges (@15%)				1,969.24	20.73
Sub-total (1.1)					17,122.17	180.23
1.2	STRUCTURES					
1.2.1	Katcha	Sq. ft.	1,500	740,526	1,110.79	11.69
1.2.2	Pacca	Sq. ft.	2,500	87,659	219.15	2.31
1.2.3	Semi Pacca	Sq. ft.	2,000	481,413	962.83	10.14
1.2.4	Wood	Sq. ft.	1,500	11,326	16.99	0.18
Sub-total (1.2)					2,309.75	24.31
1.3	TREES					
1.3.1	Non Fruit Tree	No.	20,000	18,317	366.34	3.86
1.3.2	Fruit Tree	No.	57,000	2,982	169.97	1.79
Sub-total (1.3)					536.31	5.65
1.4	CROPS					
1.4.1	Maize	Per 40 kg	1,500	22,724	34.09	0.36
1.4.2	Wheat	Per 40 kg	1,600	18,592	29.75	0.31
Sub-total (1.4)					63.83	0.67
1.5	Relocation Cost (Based on Entitlement Matrix)					
1.5.1	Dislocation Allowance against loss of agri. Land	Kanal	20,000	2,827	56.54	0.60
1.5.2	Reconstruction Grant for Residential Structure	m ²	250	127,906	31.98	0.34
Sub-total (1.5)					88.52	0.93
1.6	Rehabilitation Assistance					
1.6.1	Special Assistance For Vulnerable HHs					
	<i>Soniwals</i>	No.	200,000	13	2.60	0.03
	Others	No.	150,000	42	6.30	0.07
1.6.2	Assistance against income loss by owners operated commercial setups for three months.	Person	30,000	76	2.28	0.02
1.6.3	Assistance for Affected wage earners	APs for 3 months	27,000	137	3.70	0.04

Sr. No.	COST ITEMS	Unit	Unit Rate (PKR)	Quantity	Total Cost (MPKR)	Total Cost (MUS\$)
1.6.4	Transfer Grant for relocation of business structures	m ²	100	7113.8	0.71	0.01
Sub-total (1.6)					15.59	0.16
Sum of Sub-totals of 1					20,136.18	211.96
2 - RESETTLEMENT SITES DEVELOPMENT						
2.1	Land					
2.1.1	Land Leveling	Kanal	350,000	2070	724.50	7.63
Sub-total (2.1)					724.50	7.63
2.2	Resettlement sites Infrastructure development					
2.2.1	Access Roads construction and land compensation	Km	10,000,000	51	510.00	5.37
2.2.2	Mosque	No.	7,360,000	4	29.44	0.31
2.2.3	Water supply Tank(30 Village)	Cu. ft.	2,850	57,120	162.79	1.71
2.2.4	Water Supply Channel(30 Village)	per km	695,000	100	69.50	0.73
2.2.5	School (Middle)	No.	12,720,000	2	25.44	0.27
	School(Primary)	No.	6,360,000	4	25.44	0.27
2.2.6	Boundary wall for Graveyard	per G. Yard	1,170,000	30	35.10	0.37
2.2.7	Dispensary(3 Structures)	per structure	920,000	3	2.76	0.03
Sub-total (2.2)					860.47	9.06
Sum of Sub-totals of 2					1,210.47	12.74
3 - LIVELIHOOD SUPPORT						
3.1	Skill Development for Affected Communities	per year	100,000,000	15	1,500.00	15.79
Sub-total of 3					1,500.00	15.79
4 - LOCAL AREA DEVELOPMENT						
4.1	Infrastructure				1,235.00	13.00
4.2	Entrepreneur Support 10 Years				475.00	5.00
4.3	Capacity Building of Local Government				237.50	2.50
4.4	Training & extension support 10 Years (Services and facilities)	Years	47,500,000	10	475.00	5.00
4.5	Education Fund 10 Years (Literacy Promotion, Scholarship, etc.)				427.50	4.50
Sub-total of 4					2,850.00	30.00
5 - INSTITUTION & MANAGEMENT						
5.1	Building	Sq. ft.	2,000	8,160	16.32	0.17
5.2	Fixtures and Furnishing	Lump sum			20.00	0.21
5.3	(a) PMU Staff Salaries	Years	36,100,000	10	361.00	3.80
	(b) PMU Costs during O&M	Years	45,600,000	5	228.00	2.40
5.4	Vehicles	No	4,200,000	10	42.00	0.44
5.5	R&M of vehicles	Years	10,000,000	15	150.00	1.58
5.6	Office Equipment	Lump Sum			10.00	0.11
5.7	Operation & Maintenance Cost	Years	250,000	15	3.75	0.04
Sub-total of 5					831.07	8.75
6 - PLANNING AND DESIGNING						
6.1	Resettlement Implementation Design	Lump Sum			28.50	0.30
6.2	Resettlement Site Development Design	Lump Sum			28.50	0.30
6.3	Livelihood Support Design and Implementation	Year	28,500,000	15	427.50	4.50
Sub-total of 6					484.50	5.10
7 - ADMINISTRATIVE OVERHEADS						
7.1	Administrative Overhead: Land Acquisition By DRO	Lump Sum			10.00	0.11
Sub-total of 7					10.00	0.11

Sr. No.	COST ITEMS	Unit	Unit Rate (PKR)	Quantity	Total Cost (MPKR)	Total Cost (MUS\$)
8 - MONITORING & EVALUATION						
8.1	Independent Monitor (2 times a year)	Year	30,000,000	8	240.00	2.53
8.2	Internal Monitoring	Month	250,000	84	21.00	0.22
8.3	IPOE	Per visit	3,000,000	14	42.00	0.44
8.4	MIS Development	Lump Sum		One time cost	2.65	0.03
8.5	MIS Staff	Lump sum			24.78	0.26
Sub-total of 8					330.43	3.48
9 - TRAINING & CAPACITY BUILDING						
9.1	Consulting Service Cost (Sub Projects) / Outsourcing, (If any)	Lump sum			25.00	0.26
9.2	Research	Year	15,000,000	10	150.00	1.58
9.2.1	National	Year	2,500,000	7	17.50	0.18
9.2.2	International	Year	7,000,000	7	49.00	0.52
9.3	Trainings	Year	30,000,000	10	300.00	3.16
Sub-total of 9					541.50	5.70
Total (1+2+3+4+5+6+7+8+9)					28,268.65	297.56
10 - CONTINGENCY						
10.1	Physical Contingency (@25%)				7,067.16	74.39
10.2	Price Contingency (@9 %)				2,544.18	26.78
Sub-total of 10					9,611.53	101.17
GRAND TOTAL (Total of 1+2+3+4+5+6+7+8+9+10)					37,880.74	398.74

* 1 Kanal = 506m² or 0.125 Acre or 0.05ha, 1\$=95 PKR as per 2012 rates

9.2.1 Basis for Costs and Allowances for Affected Land and Assets

Land

Land in Kohistan, particularly in the project area, has no established market price simply for the reason that there are no official transactions for ownership changes. The land value estimated here, therefore, is based on the values used in the same district KayalKhawar Hydropower Project 2011 Award. As noted in Chapter 5, the compensation rates in KeyalKhawar were based and updated from DiamerBasha Project land compensation rates which were awarded in 2008. In both project, the rates were adopted and used after negotiation and agreement with local *Jirgas*. In case of Dasu, the KeyalKhawar Project rates were updated to 2014 rates considering annual escalation. These rates were then used for costing purpose in the RAP. These rates are not final and they will be presented for consultation and agreement with local communities at *Jirgas*. Only the final agreed rates with local communities and the District Collector will be used to finalize and payment of the final compensation.

Structures

Loss of structures, in both commercial and residential properties was identified in the Field Survey. The replacement value for the structures, too, has been computed using the Pakistan Institute of Costs and Contracts (PICC) including the local prevalence for the existing categories.

Trees

Number of trees of different sizes and species has been assessed through the DHC Field Survey. However, the tree numbers claimed by the Affected households could not be physically verified and therefore the survey estimates of trees is believed to be very high, particularly in comparison with the GIS computations which would be lower than the actual number. Thus, until the District Collector verification survey for compensation

payments is conducted a tentative estimate of tree numbers has been used in the computation of replacement value of affected trees. In the District Collector survey subsequent to physical count of the trees replacement values will be computed using the current values provided by the Department of Forestry and Agriculture and the owners will be compensated at current replacement costs. The compensation for both types of trees is considered on the basis of average as variation in age, girth and fruiting is found during the survey and; these estimated rates have also been given after consultation with the relevant government departments.

Crops

Standing crops on acquiring land have been identified through DHC Field Survey and verified by the Land Acquisition survey conducted by District Collector. The yield and the replacement rates of crops have been obtained from the district agriculture office and considering the Entitlement Matrix.

9.2.2 Provision of Resettlement and Rehabilitation Assistance

Relocation Allowance

A relocation allowance for loss of land will be provided to all affected persons losing agricultural land. The allowance proposed is PKR 500 (five hundred) for one *kanal* (local unit of land) of acquired agricultural land, and PKR 750 (seven hundred and fifty) in case of homestead and commercial land. The maximum amount of dislocation allowance determined at these rates will be PKR 20,000 and 5000 (twenty thousand and five thousand) respectively. Lessees of land will be provided dislocation allowance at the rate of PKR 1500 (one thousand five hundred) per *kanal* of land. For loss of income from rented-out residential/commercial premises the lessee and lessor will be paid a onetime allowance of PKR 10,000 (ten thousand). These allowances are on the basis of Entitlement Matrix in consideration of the local market rates.

Transfer Grant

All the displaced households and businesses will require moving their belongings and salvaged materials for which a Transfer Grant will be provided at the rate of PKR 100 (one hundred) per square meter (m²) for residential and commercial structures. Likewise, the transfer grant for commercial is also considered which is in accordance to the Entitlement Matrix and the local prevailing market rates. Also against the loss of agriculture land, PKR 500 (five hundred) per *kanal* will be given to the resettlers.

Reconstruction Grant

All the displaced households, businesses and physical cultural resources (community premises) will require reconstructing their housing, business and community premises at permanent alternative sites. A Reconstruction Grant will be provided to the affected persons at the rate of PKR 250 (two hundred and fifty) per square meter for residential structures and PKR 500 for commercial structures.

One-Time Special Assistance

Affected female headed households, differently-abled headed households will be provided with a onetime special assistance of PKR 5,000 (five thousand) each. The entitlement will be paid directly to the head of households and actual owners of the premises. This cost also includes the one time rehabilitation assistance in terms of special assistance for the vulnerable and others as shown in the costs table.

Resettlement Site Development

The resettlement sites will be developed by the project which includes the land leveling, and provision of the basic civic amenities. The infrastructure development includes access roads construction, water supply tank, irrigation channel, some very basic health units/dispensary as well as boundary wall of the graveyard etc. The calculation for the

development activities are based on the WAPDA Schedule Rates 2013. The community and public structures will be constructed by the resettlers themselves.

Other Costs

There in the implementation of RAP, certain other costs have been added as depicted in the Costs Table which relate to livelihood development, local area development, institution management both under the project management unit as well for social component of the construction supervision consultants. For designing and related overheads, lump sum amounts have been fixed in terms of the requirement of the targets, changing situation and requirements of the local situation at, during and after the project implementation. These costs have fixed for a period of ten years.

9.2.3 Staffing Cost

Social and Resettlement Unit (SRU)

For the implementation of RAP, there under the project management unit of Dasu Hydropower Project, a Social and Resettlement unit will be established which will be headed by Deputy Project Director-Safeguards/Chief Engineer. In the said unit, there will be a Director, Deputy Directors, Assistant Directors and the local teams for support in the field. All the staff will be relevantly qualified and accordingly experienced in concerning aspects of the development.

Construction Supervision Consultants (CSC)

Parallel to the SRU, there will be a Social Component under the Construction Supervision Consultants for technical advisory in coping with the assignments and targets achievement. This component will comprise of the both international and national specialists in respective aspects of social development and resettlement. This team will work in Phase I and II. The overall cost for this team is given in the RAP Cost Table while the composition of the proposed team and budget is as follows:

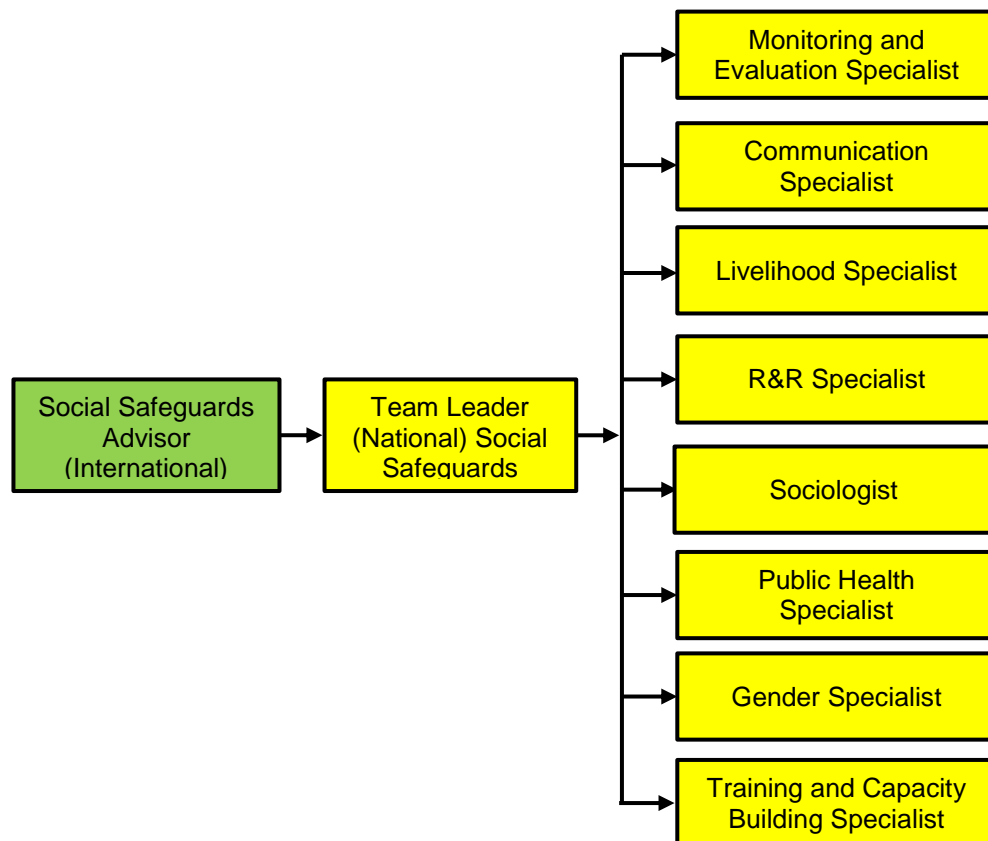


Figure 9.1: Organizational Structure of Social Unit under CSC

Table 9.2: Social and Resettlement Team under CSC - Proposed Positions and Budget

No.	Title	Year	Unit	Phase - I			Phase - II			G. Total Phase - I & II
				Quantity	Rate (US\$)	Total (US\$)	Quantity	Rate (US\$)	Total (US\$)	
International										
1	Social Safeguards Advisor (International)	2014-2025	Month	36	30,000	1,080,000	12	30,000	360,000	1,440,000
National										
2	Team Leader (National) Social Safeguards	2014-2025	Month	84	5,000	420,000	36	5,000	180,000	600,000
3	Monitoring and Evaluation Expert	2014-2025	Month	48	4,000	192,000	24	4,000	96,000	288,000
4	Communication Specialist	2014-2025	Month	48	2,500	120,000	24	2,500	60,000	180,000
5	Livelihood Specialist	2014-2025	Month	48	2,500	120,000	24	2,500	60,000	180,000
6	Resettlement and Rehabilitation Specialist	2014-2025	Month	84	2,500	210,000	36	2,500	90,000	300,000
7	Sociologist	2014-2025	Month	84	2,500	210,000	36	2,500	90,000	300,000
8	Public Health Specialist	2014-2025	Month	84	2,500	210,000	36	2,500	90,000	300,000
9	Gender Specialist	2014-2025	Month	48	2,500	120,000	24	2,500	60,000	180,000
10	Training & Capacity Building Specialist	2014-2025	Month	48	2,500	120,000	24	2,500	60,000	180,000
Total				612	56,500	2,802,000	276	56,500	1,146,000	3,948,000

Monitoring

Monitoring will regularly be done for provision and maximizing the benefits against the impacts of the project. The monitoring and evaluation of the social and resettlement implementation will be done at all levels including internal, external and by International Panel of Expert (IPOE). There will be an establishment of standard Management Information System (MIS) and qualified staff for recording and maintaining the findings as well as record keeping being available to the stakeholders at any time. Further, the developments and findings will be posted on the project/WAPDA websites for information to all. The cost for such set ups and the frequency has proposed according to the need and current prevalence.

Training and Capacity Building

Dasu Hydropower Project is a complex and innovative project in hydropower development so far, the need for training and capacity building of the staff is immense. Also, there is a potential of research in social development and resettlement in terms of the area including life of the stakeholders. Therefore, a proposal for research and training& capacity building both locally as well as internationally is being proposed in the cost which may lead to prospect outcomes for the future.

9.3 AREA DEVELOPMENT AND COMMUNITY SUPPORT PROGRAM

In the implementation of the budget there are associated funding requirements, albeit not passed onto the PAPs as compensation, will nevertheless be incurred in the process of implementation management and monitoring and also in developing the area where the affected households are resettled. These costs include the Area Development and Community Support to be implemented in phase with the relocation process and Administration expenses. The area development activities which would initially focus on the income and livelihood restoration and capacity building of the PAPs will also in the long term extended to area development.³³

³³ See SRMP Vol. 12 Area Development and Community Support Programs

For income restoration and livelihood development of the PAPs a short-term livelihood restoration program followed by a long term development plan, as described in Section 7, will be implemented. A Social Development Fund (SDF) will be established by the Project to support the livelihood development activities the costs of which are included in the budget presented in Table 9.1. SDF will be used in furtherance of livelihood restoration programs and also social, cultural and economic development programs within the self-managed resettlement villages. During the interim period between the project approval and finalization of Detailed Design it is proposed to conduct social preparation through consultation and information disclosure to the affected community and the costs of these activities are also included in the Budget in Table 9.1.

During the operation of the DHP it is expected that SDF will be bolstered with funds from other mechanism proposed. The administration and management costs of RAP implementation and monitoring are presented separately in the budget.

9.4 LIVELIHOOD REGENERATION AND SOCIAL RISKS MANAGEMENT

The project will develop 34resettlement sites selected by the affectees themselves for permanent relocation of households and businesses covered in the RAP. To accommodate the self-relocation of the affected households the project will provide infrastructure facilities as access roads, water supply and drainage systems, and rehabilitation of the existing electricity system and transmission lines and funds for rebuilding common properties as religious and educational institutions. Affected physical cultural resources will be supported by the Project for conservation, removal and reconstruction.

PAPs Affected by loss of income such as wage earners, and Affected families losing more than 10% of their income or productive land due to project interventions, will be provided support through a short and long term ILRPs as detailed in Section 7 above. The social development fund (SDF) will be in place to provide short and long-term livelihood restoration support and capacity building for the PAPs. PRO will also implement programs to develop social capital of the resettled community using the said funding. A Public Health Action Plan with respective budget provisions form SRMP implementation arrangements will be implemented to safeguard public health in the project-Affected areas.

9.5 APPROVAL OF THE RESETTLEMENT BUDGET

Resettlement and rehabilitation budget included in this RAP will be revised as per findings of the DMS before computation of final compensation payments. The Ministry of Water and Power will approve the amended budget first with concurrence from World Bank and will be placed in Planning Commission for approval if fond necessary.

The rates for cash entitlements for rehabilitation as well as allowances payable to AHs will be indexed annually, based on the actual annual inflation rate. The Project will determine the annual inflation rates to be applied to all cash entitlements. PRO will assist the Project in identifying additional loss of assets during construction and entitlements of these PAPs. These budget revisions will be approved by the Ministry with the concurrence of the funding agency.

All the funds for compensation will be provided to the district collector by the project and district collector will be responsible to pay the compensation to individual PAPs according to their losses. However project will be responsible for the implementation of other resettlement, rehabilitation and development activities.

9.6 MANAGEMENT OF RESETTLEMENT FUND

District Collector is authorized by LAA 1894 to pay compensation to eligible persons for loss of land and structures, trees and crops. Other compensation payments as per the entitlement matrix will be contingent upon payments by District Collector to confirm the

identity of the eligible person. These payments will be made by PRO under the supervision of Deputy PD (Safeguards) and Project Director.

Detailed implementation procedural guidelines will be required to implement the RAP at the field level. Both PMU and CE-DPD/Safeguards Office will follow the implementation procedure after it has been approved by General Manager or the Projector Chief Executive if no change in cost otherwise it has to approve by WAPDA Authority with concurrence from Bank. The implementation procedure will include definition of various resettlement terms, the entitlements, detail procedure for identification of eligible persons for resettlement entitlements of the RAP, and preparation of losses and entitlement files of individual PAPs, processing payments, effecting their disbursement and documentation. PMU with the assistance of Consultants and Director–Resettlement will prepare the implementation procedural guidelines.

The GM/CEO-PD as per requisition for payments under quarterly assessment of DD Resettlement will place funds with PRO resettlement account at Dasu. The implementation guideline will contain details of management aspects and monitoring mechanism. All payment to the affected persons will be paid by crossed bank cheques. Vouchers on payment will be prepared in triplicate, for PRO, WAPDA and Ministry of Finance. The Director –Social/Resettlement and DD-Resettlement will sign the vouchers. Payment will be made and record maintained as per approved implementation guidelines.

10 MONITORING AND EVALUATION

10.1 INTRODUCTION

The RAP has been prepared with the aim of ensuring that PAPs will be better off or will have at least the pre-project living standard after the implementation of the RAP. Thus it is essential to have a comprehensive monitoring program in place to ensure that the implementation of the RAP is taken place as planned. The monitoring of the planning and implementation of resettlement has been designed as an essential part of RAP implementation and incorporates a systematic monitoring and evaluation (M&E) process to be continued even after completion of the Project.

The M&E system presented herein is a continuous process of collecting, collating and analyzing information about the progress of RAP implementation and a tool for identifying strengths and weaknesses of the process. Periodic evaluation of the process and the outcomes will enable PD and LA&R Unit of WAPDA to identify deficiencies, procedural weaknesses, policy inadequacies and institutional drawbacks to devise and implement corrective measures to achieve the desired goals and objectives of the RAP.

10.2 OBJECTIVES OF M&E

The objective of the M&E system presented herein is not only to assist in maximizing benefits of the resettlement packages to the PAPs but also enhance the delivery capacity of WAPDA with regard to resettlement implementation. Further, the system will serve as a tool to ensure timely and fair delivery of PAP entitlements.

The M&E will obtain feedback from target populations and the field operatives to facilitate formulation of remediation measures when required and as a result ensure achievement of targets within schedule. M&E will be carried out through collecting and analyzing information from the field and verifying the progress reporting on resettlement implementation progress and its effectiveness. It will ensure that inputs are provided, procedures are followed, and outputs are monitored and verified as per approved plan and schedule of action. A database with GIS will be developed for the purpose of the ongoing monitoring and evaluation and also for ex-post evaluation.

Monitoring and evaluation mechanism of resettlement related operations involves a two-pronged approach. Monitoring will be done both internally and externally to provide feedback to PMU and to assess the effectiveness of the RAP and its implementation. Internal monitoring will be carried out by Internal Monitoring Executing Agency at three consecutive stages of the process of RAP implementation: preparatory stage, relocation stage and rehabilitation stage.

10.3 MONITORING PHASES

10.3.1 Preparatory Stage

Before commencing the relocation of the PAPs, monitoring is required on the process of establishing the resettlement unit, budget management, consultation with APs for information dissemination on payments of entitlement and their participation in the implementation process. The key elements to be monitored are:

- Consultation of PAPs for information disclosure;
- Process of PAP identification for compensation;
- Budget disbursement;
- Institutional capacity building

10.3.2 Relocation Stage

The second phase of monitoring will be during relocation. The monitoring will assess PAP satisfaction of resettlement sites and facilities available at the sites, assistance

provided to vulnerable groups for relocation, adaptation of PAPs to new surroundings and re-establishment of community way of life. The key issue for monitoring will be:-

- Delivery of entitlements;
- Grievance resolution;
- Preparation of resettlement site,
- PAPs who do not relocate in Project facilitated sites;
- Payment of resettlement benefit;
- Income and livelihood restoration assistance.

10.3.3 Rehabilitation Stage

When the PAPs have settled in at the new sites, the monitoring will focus be on economic recovery programs including income generating programs, efficiency and impact of the said programs on living standards, and the sustainability of the new livelihood patterns. The key elements that will be monitored are:

- Availability of civic amenities and essential facilities in the resettlement sites;
- Consultations;
- Implementation of income generation activities;
- Assistance to enhance livelihood and quality of life
- Sustainability of the livelihood programs being implemented;

10.3.4 M&E Indicators

Benchmarks relating to monitoring and evaluation of RAP implementation are as follows:

- Land acquisition as compared to schedule.
- Disbursement of compensation payments to PAPs.
- Functioning of grievance redress mechanism.
- Establishment of infrastructure and other facilities in project-managed resettlement areas;
- Construction of housing by PAPs;
- Activities of PAPs for developing plots for cultivation and availability of inputs;
- Relocation of self-managed resettlers in areas other than resettlement sites.
- Implementation of livelihood restoration measures.

Indicators presented below have been prepared with due regard to above bench marks and are to be used in monitoring the implementation process with regard to compliance to the RAP policy. The essential indicators to be monitored are the specific activities and the entitlement matrix contents. Table 10.1 includes indicative indicators for achievement of the objectives. Additional indicators will be chosen in consultation with the safeguard team during the early phase of monitoring

Table 10.1: Indicators to be considered in M&E

Process Indicators	<ul style="list-style-type: none"> • Setting up of PRO • and Training of staff • Placement of funds at District Collector and PRO for land acquisition and resettlement • Expenditure of implementing agencies • Engaging independent monitoring agency • Procedure of confirming identity of eligible affected persons • Procedure employed in determining loss and entitlements • Development of livelihood and income restoration program • Preparation of disclosure instruments • Information disclosure and consultation events • Formation of GRC, RAC and IVC • Grievance redresses procedures in-place and redress efficiency • Level of public awareness on RAP policy and provisions
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Output Indicators	<ul style="list-style-type: none"> • Number of households relocated • Number of households compensated and assisted • Number of businesses relocated • Amount of compensation disbursed • Number of persons employed in construction and project sites • Number of local youth trained under the training programs • Amount of resettlement benefits disbursed • Number of eligible persons identified and receiving training • Number of vulnerable households resettled • Disbursement of Special Packages for vulnerable groups • Number of vulnerable households brought under ILRP • Type and number of community support programs under area development
R&R Impact Indicators	<ul style="list-style-type: none"> • Changes in housing, water and sanitation infrastructure • Changes in land holding • Changes in occupation • Changes in income and expenditure • Changes in attending to health problems • Nutrition of women and children • Gender balance and women empowerment • Changes in vulnerable households and women headed households. • Changes in the quality of life (pre and post-project) • Changes in employment patterns at households level

10.4 MONITORING LEVELS

Monitoring of RAP implementation will be carried out at four levels.

First, PMU will conduct regular internal monitoring through the Internal Monitoring Executing Agency under the supervision of Deputy Project Director, Safeguards and the Construction Supervision Consultants.

Second, an experienced international monitoring consultant will be hired by PMU for independent external monitoring of the social/resettlement programs of the Project. This will be carried out on a quarterly basis starting from second half of 2014, following the start of per-construction activities. Third, the Ministry of Water and Power and Planning Commission of Pakistan will also carry out supervision and monitoring to ass the donors. The donors themselves will also monitor the overall performance of project, including the RAP and ILRP implementation through missions.

Fourth, the International Panel of Experts (IPOE) established for this project will also periodically monitor the implementation of the project.

In addition, social auditing will be conducted every two years, starting from Year 2 of the implementation to assess and evaluate the progress and outcome.

10.5 PARTICIPATION OF PAPS AND PRO IN M & E

Involvement of PAPs in the M&E process would give them a sense of ownership and therefore avoid many problems which could arise during implementation of resettlement activities. While assisting the monitoring activities of the Internal Monitoring Executing Agency, PRO would also be responsible for involvement of the PAPs in the process.

PRO will assist in electing members from the VCs to the monitoring and evaluation team of the Resettlement Monitoring Unit and will keep all VCs committees informed of the monitoring process through provision of monthly reports prepared by the Internal Monitoring Executing Agency.

10.6 METHODOLOGY AND APPROACH

In the M&E process a set of indicators would be identified on which information will be collected to assess the RAP implementation process. Involvement of PAPs, particularly the vulnerable groups, in the process is also essential to ensure participatory approach and success of the activity.

Monitoring would be conducted employing both qualitative and quantitative methods and would include the following:

- (i) A baseline household survey of a representative sample disaggregated by gender and vulnerability to obtain information on the key indicators of entitlement delivery, efficiency, effectiveness, impact and sustainability.
- (ii) Consultations with a range of stakeholder groups (local government, resettlement field staff, NGOs, community leaders and PAPs including women and vulnerable groups).
- (iii) Consulting individuals such as *maliks*, *aalims*, village committee members, and/or persons with special knowledge or experience about resettlement activities and implementation.
- (iv) Open public meetings at project-managed resettlement sites to elicit information about performance of various resettlement activities.
- (v) Field observations on status of resettlement implementation, plus individual or group interviews for crosschecking;
- (vi) Informal surveys of PAPs, NGO workers, resettlement staff, and implementing agency personnel using non-sampled methods.
- (vii) In the case of special issues, in-depth case studies of PAPs from various social levels;

10.7 INSTITUTIONAL ARRANGEMENTS FOR M&E

SRU established under the PMU will conduct internal M&E of the RAP implementation involving the ADs and the construction supervision consultant (CSC). An Independent Monitoring Consultants will be contracted to conduct the independent M&E. MOWP and Planning Commission of Pakistan will oversee and monitor safeguard compliance of the project while the donor representatives will conduct periodic inspections for the compliance monitoring. Safeguard International Panel of Experts will advise the WAPDA in taking proper methodology and action for implementation of RAP.

10.7.1 Office of the Deputy Project Director-Safeguards

The Deputy Project Director-Safeguards will be responsible to oversee proper and timely implementation of all activities in RAP. The PRO under the DD Resettlement will operate and manage implementation of RAP and ILRP with the assistance from Consultants (CSC) and ADs. The monitoring will be carried out by Deputy Project Director-Safeguards in consultation with the Internal Monitoring Executing Agency with support from PRO. PRO will collect appropriate data from the field and provide feedback to Deputy Project Director-Safeguards on progress of RAP and ILRP implementation and the day to day problems arising out of the process.

Internal Monitoring Executing Agency will collect information from the project site and assimilate in the form of monthly progress of RAP implementation and forward to Deputy Project Director-Safeguards through Director (Resettlement) who will adjust work programs where necessary. An automated MIS will be designed and developed by the Internal Monitoring Executing Agency to monitor the output indicators at the field and also at the PMU Office.

10.7.2 Independent Monitoring Consultants

An Independent Monitoring Consultants, experienced in resettlement and rehabilitation of development related displacement will be identified and engaged to conduct the external M&E and reporting of the implementation of the RAP. This Independent

Monitoring Consultants agency is to carry conduct quarterly, annual and final evaluation of the RAP implementation and recommend changes if and when necessary to the GM CEO/PD and WAPDA Authority. The scope of Independent external Monitoring Consultants will cover compliance monitoring and social impact evaluation of Resettlement under the Dasu Hydropower Project (see TOR in Appendix H). The Independent Evaluation will assess compliance and evaluation as per Table 10.2.

Table 10.2: Scope of Independent External Monitoring Consultants

Compliance Issues	<ul style="list-style-type: none"> • Entitlement policies and compensation; • Adequacy and efficiency of organizational mechanism for RAP implementation; • Livelihood income restoration of PAPs; • Efficiency and PAP satisfaction of grievance redress; • Provisions of budgetary allocation by PMO for RAP implementation;
Evaluation	<ul style="list-style-type: none"> • All PAPs including <i>soniwals</i> requiring relocation have land for relocation; • PAPs have reestablished/upgraded their structures; • All businesses have been reestablished; • APs involvements in various committees • Resettled PAPS were extended assistance to restore their incomes to pre-project or higher levels;

It will also peruse the accounting documents used in recording the payments to PAPs. In addition they will undertake a comprehensive annual impact evaluation to assess the effectiveness of the work being undertaken and achievement of objectives.

10.8 REPORTING REQUIREMENTS

Internal Monitoring Executing Agency will prepare monthly progress reports on resettlement implementation activities to GM-CEO/PD through Deputy Project Director, Safeguards with assistance of CSC and will submit to WAPDA Authority and further to MOWP and Planning Commission of Pakistan. GM-CEO/PD will prepare quarterly reports to the donor agency with the assistance of CSC. The Independent External Monitoring Consultants will submit quarterly reviewreport directly to the donor agency as well as to WAPDA Authority to assist in ascertaining whether resettlement goals have been achieved, and more importantly, whether livelihoods and living standards have been restored/enhanced. The reports will include suitable recommendations for improvement. Monitoring reports will be submitted at regular intervals as specified. The M&E documents and social audit reporting will also be publicly available, including posting in project website.

APPENDICES

Appendix A: Alternative Analysis Matrix

Aspects Considered	Alternative 1	Alternative 2	Alternative 3
	Dam Axis located 3.9 Km upstream of Dasu bridge.	Dam Axis located 8.2 Km upstream of Dasu bridge	Dam Axis located 9.3 Km upstream of Dasu bridge
Social & Resettlement Impacts			
Population affected	7,670	3,670 (52% less compared to Alternative 1)	Similar to Alternative 2
Households affected	High 778 households Entire Seo village will be inundated	65% less compared to Alternative 1 278 households	Similar to Alternative 2
Land acquisition Land required Agricultural land Grazing areas	High 7,363 acres 197 acres 54 acres	Less 6,439 acres 84 acres 51 acres	Lesser, but no detailed assessment has been made.
Public acceptance	Negative The Jirga held in Seo village decided against this alternative	No opposition by community	No opposition by community
Environment			
Habitat loss	4,855 acres	4,201 acres	
Loss of Trees	22,149	20,000	
Physical and cultural resources	A graveyard with 5,000 graves at Seo will be affected. A 400 year old wooden mosque of historical importance at Seo will be affected	A very old mosque at Seer Gayal will be affected in both Alternatives 1 and 2	Though some graves and mosques will be affected, no sites of historical importance will be affected
Technical Robustness			
Hydrological conditions	Similar to other alternatives	Similar to other alternatives.	Similar to other alternatives
There is no major tributary located within the reach of 3 alternatives that changes the hydrological conditions. Hence, for all the alternatives, the hydrological conditions such as river flow, floods and sediment flow are similar to all these locations.			
Geological and Geotechnical Conditions	Relatively poor compared to other alternatives, but still considered acceptable for the dam	More preferable	More preferable Conditions are similar to Axis 5
Seismic Hazard	Similar to other alternatives The Khoshee fault will be submerged under reservoir for this alternative	Similar to other alternatives The Khoshee fault will be crossed by tail race tunnels for this alternative	Similar to other alternatives The Khoshee fault will be crossed by tail race tunnels for this alternative
Energy Production	Higher potential 4,320 MW 20,613 GWh (annually) This alternative produces 6 to 8% more	Less potential than Alternative 1 4,280 MW 19,381 GWh (annually) A subsequent re-	Less potential than alternatives 1 & 2 4,000 MW 19,050 GWh (annually)

	energy than other options.	optimization of the design allowed for this alternative to have the same power output of Alternative 1	
Cost			
Construction Cost for RCC dam	High 2,588 million US\$ (only for dam)	Low 2,468 million US\$ (only for dam)	Very high 2,651 million US\$ (only for dam)
KKH realignment	51 Km	48 Km	

Accordingly alternative 2 was selected as the best option. The data in the table above for option 3 was based on the information available at the commencement of the Detailed Design and thus was updated subsequently when more accurate data from studies investigations and field surveys were available during the detailed design process.

Appendix B: List of Affected Villages

Sr. No.	Hamlet	Village	Union Council
Right Bank			
1.	Komila*	Komila	Komila
2.	Kass*		
3.	Rango*		
4.	Seo*	Seo	Seo
5.	Siglo*	Siglo	Siglo
6.	Melaar	Maliyar	Kuz Purwa
7.	Koz Kai		
8.	Kai Dogah		
9.	Seer Gayal	Dooga	
10.	Kot Gal	Gayal	
11.	Warisabad	Kot Gal	Thuti
12.	Nut Bail		
13.	Thuti		
14.	Sluch		
15.	Doonder		
16.	Gummo		
17.	Cheer Shial		
Total	17	8	5
Left Bank			
1.	Chuchang*	Dasu	Dasu
2.	Khoshe*		
3.	Logro		
4.	UcharNallah	Uchar Nullah	
5.	Barseen	Barseen	
6.	Largani	Kaigah	
7.	Kaigah		
8.	Gul e Bagh / Maidan		
9.	Pani Bah		
10.	Gadeer		
11.	Chalash		
12.	Looter	Looter	
13.	Shori Nullah	Shori Nullah	Sazin
14.	Summer Nullah	Summer Nullah	
15.	Lachi Nullah	Sazin	
16.	Sazin Camp		
17.	Shatial	Shatial	
Total	17	10	2
G. Total	34	18	7

* Villages downstream of Dam Site; + Hamlets not affected by relocation of households

Appendix C: Tribal Structures in the Project Area

Sr. No.	Village	Main Tribes	Sub-tribes	% of Main Tribe
Right Bank				
1.	Komila*	Sheikha Khel	Domi Khel, Seerkan Khel, Syed, DrapKel, TaherKhel & Sherkan Khel, Sheikha Khel	35%
2.	Kass*	Sheikha Khel	Seerkan Khel & Syed	60%
3.	Rango*	Jurai Khel	ShukarKhel	80%
4.	Seo*	Shukar Khel	Sheda Khel, Domi Khel, Seerkan Khel, Juray Khel, Syed	30%
5.	Siglo*	Narangsha Khel	BaikKhel and Dom Khel	75%
6.	Melaar	Drap Khel	SeerkanKhel and Shukar Khel	45%
7.	Koz Kai	Seerkan Khel	Drap Khel	95%
8.	Kai Dogah	Seerkan Khel		100%
9.	Seer Gayal	Jurai Khel		100%
10.	Kot Gal	Cheerkaro Khel	Shadam Khel, Mullah Khel and Gujar	90%
11.	Nutt Bail	Cheerkaro Khel	Chamar, JulaKhel	95%
12.	Sluch	Shadam Khel	Gujar	80%
13.	Thuthi	Shadam Khel	Tandi Khel and Gujar	85%
14.	Waris Abad	Cheerkaro Khel		100%
15.	Doonder	Gujar		100%
16.	Gummo	Gujar		100%
17.	Cheer Shial	Sham Khel	Chelees Khel	80%
Left Bank				
18.	Chuchang *	Aska Khel	Buta Khel and Chelees Khel	65%
19.	Khoshee*	Ushar Khel	Aska Khel, Buta Khel, Chelees Khel, Kheerza Khel and Boya Kel	45%
20.	Logro	Aska Khel	Shalkan Khel, Ashey Khel and ShamatKhel	35%
21.	Uchar Nallah	Buta Khel	Shamat Khel, Angar Khel, Jula Khel, Hakeema Khel, Chelees Khel and Yadoon Khel	30%
22.	Barseen	Boya Khel	ButaKhel	70%
23.	Larghani	Bada Kkhel		100%
24.	Kaigah	Kheer ZaKhel	Jalkan Khel, Iskandar Khel, Bada Khel and Chelees Khel	55%
25.	Gul-e-Bagh/ Maidan	Chelees Khel		100%
26.	Pani Bah	Boya Khel		100%
27.	Gadeer	Dram Khel	Yadon Khel	65%
28.	Cheelashi	Chelees Khel	Shalkan Khel and Suta Khel	65%
29.	Looter	Suta Khel	Aska Khel	55%
30.	Shori Nullah	Suka Khel	Zameen Khel, Ashraf Khel, Machaish Khel, Shamray Khel, Alam Khel & Goal Khel	30%

31.	Sommer Nullah	Suka Khel	Shamat Khel	55%
32.	Lachi Nullah	Nazardin Khel	Noordin Khel	55%
33.	Sazeen Camp	Shin Khel		100%
34.	Shatial	Kameen Khel		100%
*Downstream Villages				

Source: Field Surveys, Environment and Social Safeguards Study, Detailed Design 2012, DHC

Appendix D: Summary of the Consultations undertaken during Detailed Design

No.	Date	Objectives	Person/Agency Consulted	Issues/Feedback
Socio-economic and environmental surveys and Resettlement Inventory surveys (1435 participants)				
1.	May-July, 2012	Social economic survey	319 households	Basic socioeconomic and environmental information and development needs of displaced households collected
2.		Resettlement Inventory survey	763 households	
3.		Environmental baseline survey	63 households	
4.	Aug. 2012	Gender survey	250 women respondents interviewed at Basic Healthcare Unit (BHU) and Rural Healthcare Center (RHC),	Basic information on women's social economic and health status and development needs collected
5.	July.-Sep. 2012	Wildlife Survey	40 key informants along villages from Dasu to Basha area. Officials of Forest Department	Locations of wild animal Presence, possible impacts on forestry and wild animals due to Project construction
Jirga meetings, consultation meetings (at least 718 participants)				
6.	28 Jul. 2011	Grand Jirga meeting	1. Abdul Sattar Khan, Member of Province Assembly, KPK; 2. Members of Grand Jirga (35 members)	Charter of Demands was presented to the Project Director
7.	Dec. 2011	1. project area overview, 2. consultative meeting with local communities and the concerned departments; and 3. disclosure of project information	1. District Management; 2. Police Department; 3. Agriculture Department; 4. Health Department. 5. local communities along KKH highway	1. Reasonable compensation for losses of Aps' assets, like land, houses, shops, etc. 2. Prompt and transparent payment of cash compensation.
8.	2 Mar. 2012	1. Jirga meeting with notables/ tribal heads to seek consensus/trust building, 2. Pre-test of survey questionnaires 3. Consultative meeting with concerned departments	Total participants: 114 persons 1. Project affected tribes/sub-tribes; 2. Jirga members 3. Relevant governmental agencies	1. "Jirga" decided to establish a committee by the notables of the area with consensus 2. This committee will decide survey schedule and assistance to be provided for the survey.
9.	8 June, 2012	Follow-up of Charter of Demands	20 participants (<i>Jirga</i> members)	Time allowed for WAPDA to responding on local APs' demands
10.	Sep-Oct. 2012	Follow-up of Charter of Demands	112 (73+39) participants (<i>Jirga</i> members)	Responses for charter of demand by PD, latest demands collected from Jirga

11.	May-July 2012	Consultation with affected tribe/sub-tribes	34 over 35 affected hamlets consulted (385 participants)	Needs collected from 34 affected hamlets
12.	Aug-Sep. 2012	Consultation on availability of relocation sites	26 over 35 sub-tribes consulted (52 village leaders participated)	Only nine (9) of the 26 sub-tribes have relocation sites.
National consultative workshops (239 participants)				
13.	Sep. 9, 2012	Peshawar workshop	41 participants	Focused on the project information disclosure, seeking comments and suggestions from participants to further gain support for and improvement of the Project
14.	Sep. 24, 2012	Karachi workshop	37 participants	
15.	Sep.17, 2012	Lahore workshop	88 participant	
16.	Oct.4, 2012	Islamabad workshop	73 participants	

Appendix E: Outcomes of Workshops

Consultation Workshops

Considering the significance of DHP in the national context and its potential impacts on Indus Basin, provincial-level stakeholder consultation workshops were conducted in Peshawar, Karachi, and Lahore in September 2012 followed by a national workshop in Islamabad in October, 2012. These workshops were attended by the respective provincial EPAs, Wildlife, Fisheries, Forest, Archeology, and Public Health Departments, universities, NGOs/CSOs, ADB, JICA, World Bank, Planning Commission, Ministry of Climate Change, Federal Flood Commission, and National Highway Authority.

Table: Details of Stakeholder Consultations

Sr. No.	Date	Location	Participants
1.	September 9, 2012	Peshawar	41
2.	September 17, 2012	Lahore	88
3.	September 24, 2012	Karachi	37
4.	October 2, 2012	Islamabad	73
Total			239



Workshop at Peshawar



Workshop at Lahore



Workshop at Karachi



Workshop at Islamabad

Key Outcomes

A summary of comments and suggestions received in the workshops is given in following table.

Table: Summary of Discussions in Consultation Workshops

Comments and suggestions	Action Point/Response
Development of agricultural terraces to be considered for the affected households in their new resettlement areas.	Agricultural terraces will be developed in the resettlement sites.
Physical cultural resources in the area should be properly documented.	A detailed report has been prepared on Cultural Resources. Details are Included in the PCR Plan.
The people in Kohistan have unique social culture, which may be affected by resettlement.	The social structure of the affected people will not be disturbed and will remain the same. Relocation of the affected people will be still within their annual migration range.
Existing health facilities will not meet local and inward migrant workers' needs. How the project will address these health needs?	A Public Health Action Plan has been developed. Public health issues such as safe drinking water, safe disposal of sewage, safe collection and disposal of solid waste, protection against dust and community health are considered as part of EMP.
Protection of aquatic flora and fauna should be considered in project design. Requirement of environmental flows for the sustainability of downstream habitat is to be assessed.	Environmental flows will be designed for the project as per established practices and evidence based assessment.
KKH is one of the most important highways in Pakistan which connects Northern Areas with rest of the country. Impact of construction	A traffic management plan has been prepared to address the traffic related issues along KKH together with other

traffic on KKH should be assessed.	access roads to the project sites.
WAPDA shall have an Environmental Monitoring Unit at the project site for supervision of EMP implementation.	An Environmental Unit is recommended for both DHP (WAPDA) and supervision consultants.
Initial filling of reservoir may affect the downstream release of water to Rabi crops.	The first water filling of reservoir will be carried out slowly at the rate of 1 m/day. The rest of the river water will be allowed to flow downstream of the dam through LLO. No impact on Rabi crop is expected.
Low-flow season operation of the dam and its impact on aquatic life should be considered.	The reservoir will be operated as full runoff river (base load plant). Whatever water comes to the reservoir, the same will be released through the power house. Further, environmental flows will be released to maintain the downstream habitat.
Project design shall consider geo hazards (landslides and earth quakes) in the area.	The project is designed complying with guidelines of International Commission on Large Dams (ICOLD) to deal with geological and geomorphological hazards. State of art engineering modeling was carried out for design of the dam.
Floods from GLOFs will be a serious risk to the project. Early warning system for flood forecasting is necessary for the safe operation of the project.	Design flood (Probable Maximum Flood) of the project considered extreme flood events from GLOFs and extreme rainfall events. A flood telemetry network will be established in the upstream of Dasu for early warning system and better management of floods.
Security issues are to be considered during implementation of the project.	Security situation in the project area is assessed and a plan is prepared to address these issues in one of the SRMP volume on 'Hydropower Development, Conflict and Security Issues: A Perspective'
Historical and archeological sites are to be protected. DHP should support the KPK Archeology Department for protection of Shatial Rock Carvings.	The PCR plan includes protection of Shatial Rock Carvings.
Impact on the community and their livelihood due to relocation to higher elevation.	A livelihood restoration program is proposed in RAP with both short-term and long-term goals to mitigate any impacts on livelihood.
Community-based conservations should be promoted. The conservancy at Kaiga where Markhor is protected by private arrangement and selling one trophy annually for US\$ 80,000 is a good example.	The project identified a suitable site in the project area (Kandia Valley) for development of similar community-based conservation.
Indus valley is a flyway for migratory birds from Siberia to Sub-Continent. Impact of transmission line on birds' migration should be assessed.	Bird collision and electrocution are potential threats for migratory birds. These issues will duly be addressed.
Electromagnetic waves from transmission lines and their impact on human health should be assessed.	These issues will be assessed and properly addressed.
Cumulative impacts of hydropower development on Upper Indus Basin and Lower Indus Basin should be monitored.	The present assessment limits its scope of Upper Indus Basin (Tarbela Catchment). A detailed study is in pipeline from Water Sector Capacity Building and Advisory

	Project (WCAP) on 'Strategic/Sectoral Environmental and Social Assessment of Indus Basin'
Indus river ecology should be protected. Feasibility of fish ladders should be studied.	Detailed studies on terrestrial and aquatic ecology were under taken as part of environmental assessment.
Climate change impacts may trigger GLOFs, high erosion, and sedimentation which could affect the project.	A climate change assessment study was under taken as part of EA.
Lost community facilities in the affected villages should be rebuilt or restored at resettlement site(s).	All basic amenities like roads, water supply, irrigation, sanitation, schools and any other facilities lost will be rebuilt in the new resettlement areas.
Involvement of local community in planning and development process is very important.	Consultation meeting were carried out in all the project villages through Participatory Rapid Appraisal (PRA) techniques.
Ensure timely & frequently stakeholders meetings for suggestion and feedback.	WAPDA has established a full time office at Dasu which is constantly providing a forum to consult on all issues. An Executive Engineer of WAPDA heads the office. Deputy Commissioner is also involved.
Capacity of WAPDA in term of human resources needs to be increased to address social and environmental issues.	Field-level Social and Environmental Units will be established.
Potential livelihood and income generation activities should be part of the planning.	Both short-term and long-term livelihood restoration plans have been recommended in RAP
Involvement of women is very important. Mobilization of women for capacity building and income generation activities needs to be more focused.	A Gender Action Plan is prepared.
Invertebrate fauna / aquatic flora should be addressed	These are part of Aquatic Ecology Assessment
Establishment of fish hatchery is proposed.	A fish hatchery will be established, initially for R&D, and then later, for full scale development if the farming of snow trout is feasible in the reservoir.

Appendix F: Comparison of WB OP4.12 and GOP LAA (1894) adopted in DHP

Aspect	LA Act 1894	WB OP 4.12	Gaps	Specific Measures Adopted in DHP
Key Objectives				
1. Avoid involuntary resettlement	Avoidance of resettlement is not a policy objective	Involuntary resettlement should be avoided where feasible	Clear gap with regard to avoidance	Dasu HP adheres to this principle and avoided resettlement impact where feasible.
2. Minimize Involuntary resettlement	LAA 1894 do not address this aspect	Minimize involuntary resettlement by exploring all viable alternative project designs	LA Act 1894 do not address this aspect as did by the WB	Dasu HP minimized project impacts by adopting alternative dam axis to reduce and minimized displacement
3. Mitigate adverse social impacts	LAA 1894 do not address this aspect other than cash compensation	Resettlement activities should be conceived and executed as sustainable development programs	LA Act 1894 has no provision for resettlement of the affected persons	Provisions in the entitlement matrix include compensation, resettlement, livelihood restoration and access to other opportunities created by the project.
Core Principle				
1. Identify, assess and address the potential social and economic impacts	Only those with land titles are identified for compensation under the law	Identify all affected through census and socio-economic surveys of the affected population, identify, assess, and address the potential economic and social impacts of the project	Only persons with titles in land are recognized; other are not considered. Also, the LAA 1894 does not require any impact assessment.	RF/policies adopted require proper and inclusive impact assessment, including direct and indirect impacts
2. Prepare mitigation plans for affected persons	LAA 1894 is limited to compensation payment for loss of assets only	To address the Project impacts, prepare resettlement plan, including over all resettlement costs	No provisions for resettlement of the affected populations	Dasu RF/policies require preparation of RAP for project-affected persons and other assistance such as livelihood for mitigation
3. Consider alternative project design	No mention of any alternative project design	Assess all viable alternative project designs to avoid or minimize involuntary resettlement.	No provision in the LA Act 1894.	Alternatives were considered and adopted to reduce impacts
4. Involve and consult with stakeholders	Under the LAA 1894, affected persons are notified of the acquisition	Consult project-affected persons, host communities and local non-governmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the	Consultation is not required under the Act	Dasu RF has provisions for community consultation, engagement and mobilization of the people. Also, grievances redress procedures involving cross-section of people, have been established for

		resettlement program		accountability and democratization of the development process.
5. Disclose and inform APs of RP and mitigation measures	Disclosure is limited to notice to affected communities	Disclose draft resettlement plans in a timely manner and in language that is understandable to key stakeholders.	Disclosure is not required and mandated by law.	Dasu RF requires disclosure of Draft RPs to the affected communities by using various methods, including <i>jirgas</i>
6. Support existing social and cultural institutions of the affected persons	LAA 1894 do not address this aspect	To the extent possible, the existing social and cultural institutions of resettlers preserved and resettlers' preferences for relocation honored	No provision for relocation or resettlement in the LAA 1894.	Relocation strategies are based on community inputs and choices for relocation.
7. Supervision	No provision for supervision	The Bank regularly supervises resettlement implementation to determine compliance with the resettlement instrument.	No mandatory supervision in LA processes and LAA 1894 implementation and compensation payment	Dasu has many layers of supervision – internal, external, and independent and panel of experts for supervision of RAP and other plans.
8. Monitoring	International monitoring of the LA processes by the DC	The borrower is responsible for adequate monitoring & evaluation of the activities set forth in the resettlement instrument.	Gaps between LAA 1894 and WB 4.12 – no as there is no resettlement involved under the LA Act 1894.	Dasu RF has provision for internal, external monitoring, plus periodic monitoring by independent POE. Monitoring results will be shared and findings will be used for benefit enhancement or some modifications.
9. Evaluation	No post-displacement evaluation under the law	Assess whether the objectives of the resettlement have been achieved, taking account of the baseline conditions and the results of resettlement monitoring.	LAA 1894 do not address this aspect as did by WB	Dasu RF/policies have provision of post-project evaluation to assess the achievements of the project

Appendix G: Checklist of Existing Civil Amenities

Sr. No.	Existing Civil Amenities	Ser Gayal	Largani	Gul e Bagh	Kaigah	Shaheen kot	Sluch 1	Sluch 2	Sazeen Camp	Dondar	Gummo	Logro	Barseen	Shori Nala	Summer Nala	Waris Abad	Lachi Nallah	Kotgel	Lootar	Khaleq Abad	Jalkot	Uchar Nallah	Tatoil	Shatial	Natbail	Gadeer
1.	Access road from existing KKH		✓		✓	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	✓			✓	
2.	Internal roads in the village					✓			✓					✓	✓			✓		✓			✓		✓	
3.	Drinking Water Supply	✓	✓	✓	✓	✓			✓		✓		✓	✓	✓	✓		✓		✓	✓	✓	✓		✓	✓
4.	Irrigation Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓		✓	
5.	Common Sewerage				✓																					
6.	Solid waste disposal point																									
7.	Power Supply	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
8.	School (for boys /girls)	✓			✓	✓	✓	✓	✓					✓					✓		✓	✓		✓		
9.	Playground	✓		✓																						
10.	Mosque	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓
11.	Latrine	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	Community graveyard	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓				✓	✓		✓	✓	✓			✓
13.	Common timber stores		✓									✓								✓		✓		✓		
14.	Basic Health Unit/ Dispensary	✓				✓																		✓		
15.	Market/ access to market	✓	✓	✓	✓	✓			✓						✓			✓		✓	✓		✓	✓		
16.	Community Centre	✓		✓																		✓				
17.	Doley	✓					✓	✓			✓					✓		✓								
18.	Wooden suspension bridge	✓																✓								
19.	Wood selling places			✓										✓					✓							
20.	Springs			✓	✓				✓												✓			✓		
21.	FWO Camp								✓																	
22.	Water Mill								✓													✓				
23.	Water Tank									✓																
24.	Driver Hotel																✓									
25.	Earth Quake Centre																✓									
26.	Police Station																					✓				
27.	Nullah																					✓				
28.	Agriculture terraces with grown crops																					✓				

Appendix H: TOR for External Monitoring

Introduction

The Dasu Hydropower Project (the Project) has adopted a number of social safeguard plans, including the Resettlement Action Plan, to (i) pay compensation to the project-affected persons; (ii) relocate and resettle the affected families at new sites; (iii) restore their incomes and livelihoods; (iv) enhance gender status and community public health; and (v) involve the affected persons/communities in project implementation. The plans are being implemented under the overall leadership of the Project Director (PD) with the help of the Deputy Project Director (DPD) – Resettlement and his team of specialists from the project-established social and resettlement agency, namely Project Resettlement Office (PRO). The first phase of the implementation work has a 10-year timeline (2014-2023). The Project is funded by the World Bank (WB) and the Government of Pakistan (GOP).

As a requirement of the RAP and WB Operational guidelines, the Project seeks to engage an independent external expert/agency to (i) review the internal monitoring and (ii) undertake third party monitoring and evaluation of RAP and other safeguards implementation processes for the Government of Pakistan and the World Bank.

Key Objective of External Monitoring

Monitoring is an integral part of the resettlement implementation process. A four-tier monitoring program has been adopted to monitor and evaluate the outcome of the RAP and other SRMP plans. The four-tier monitoring comprise of (i) regular internal monitoring through the Resettlement Monitoring Unit (RMU) under the supervision of DD (Resettlement); (ii) external monitoring will be conducted by an independent external expert/agency commissioned by PMU; (iii) supervision and monitoring by CSC to assist PMU and the donors; and finally (iv) monitoring by the Panel of Experts (POE).

The external monitoring expert/agency will review implementation process as per set policies in the RAP/SRMP and assess the achievement of resettlement objectives, the changes in living standards and livelihoods, restoration of the economic and social base of the affected people, the effectiveness of gender and public health action plans, impact and sustainability of SRMP plans, the need for further mitigation measures if any, and to learn strategic lessons for future policy formulation and planning.

Scope of Work

The scope of work of the external monitoring expert/agency will include the following tasks:

- (i) To develop specific monitoring indicators for undertaking monitoring for all SRMP Plans (for instance, PCCP, PHAP, GAP, MPCl and so on), with particular attention to the implementation of the Resettlement Action Plans (RAP) for the project.
- (ii) To review and verify the progress in land acquisition/resettlement implementation of the Project.
- (iii) Identify the strengths and weaknesses of the land acquisition/resettlement objectives and approaches, implementation strategies.
- (iv) Evaluate and assess the adequacy of compensation given to the APs and the livelihood opportunities and incomes as well as the quality of life of APs of project-induced changes.
- (v) Identification of the categories of impacts and evaluation of the quality and timeliness of delivering entitlements (compensation and rehabilitation measures) for each category and how the entitlements were used and their impact and

adequacy to meet the specified objectives of the Plans. The quality and timeliness of delivering entitlements, and the sufficiency of entitlements as per approved policy.

- (vi) To analyze the pre-and post-project socio-economic conditions of the affected people. In the absence of baseline socio-economic data on income and living standards, and given the difficulty of APs having accurate recollection of their pre-project income and living standards, develop some quality checks on the information to be obtained from the APs. Such quality checks could include verification by *maliks*, tribal leaders, and by local *jirga* meetings. The methodology for assessment should be very explicit, noting any qualifications.
- (vii) Review results of internal monitoring and verify claims through sampling check at the field level to assess whether land acquisition/resettlement objectives have been generally met. Involve the affected people and tribal communities in assessing the impact of land acquisition for monitoring and evaluation purposes.
- (viii) To monitor and assess the adequacy and effectiveness of the consultative process – including the *jirga* systems – with affected APs, particularly those vulnerable, including the adequacy and effectiveness of grievance procedures and legal redress available to the affected parties, and dissemination of information about these.
- (ix) Identify, quantify, and qualify the types of conflicts and grievances reported and resolved and the consultation and participation procedures.
- (x) Provide a summary of whether involuntary resettlement was implemented (a) in accordance with the RAPs, and (b) in accordance with the stated policy.
- (xi) To review the quality and suitability of the relocation sites from the perspective of the both affected and host communities.
- (xii) Verify expenditure & adequacy of budget for resettlement activities.
- (xiii) Describe any outstanding actions that are required to bring the resettlement activities in line with the policy and the RP. Describe further mitigation measures needed to meet the needs of any affected person or families judged and/or perceiving themselves to be worse off as a result of the Project. Provide a timetable and define budget requirements for these supplementary mitigation measures.
- (xiv) Describe any lessons learned that might be useful in developing the new national resettlement policy and legal/institutional framework for involuntary resettlement.

Methodology and Approach

The general approach to be used is to monitor activities and evaluate impacts ensuring participation of all stakeholders, particularly the tribal elders, *maliks*, and vulnerable groups. Monitoring tools should include both quantitative and qualitative methods. The external monitor should reach out to cover on a sample basis

- (i) APs who had property, assets, incomes and activities severely affected by Project works and had to relocate either to resettlement sites or who chose to self-relocate, or whose source of income was severely affected.
- (ii) APs who had property, assets, incomes and activities marginally affected by Project works and did not have to relocate;
- (iii) Those affected by off-site project activities by contractors and sub-contractors, including employment, use of land for contractor's camps, pollution, public health etc.;

Supplemented by Focus Group Discussions (FGD) which would allow the monitors to consult a range of stakeholders (local government, resettlement field staff, NGOs, community leaders, and, most importantly, APs), community public meetings, *jirgas* to elicit information about performance of various resettlement activities.

Other Stakeholders and Their Responsibility

- **Responsibility of WAPDA/PMU**

WAPDA through the Project PMU and PRO in Dasu will ensure timely supply of background references, data and project options to the independent monitor. It will ensure uninterrupted access to work sites, relevant offices of the GOP and PMU in particular. The independent external monitor will conduct bi-annual review with the help and assistance of the PRP/PRO staff and concerned CSC specialist(s). The work would involve both review of available secondary data and reports as well as first hand survey of the affected persons and communities. Recommendations, if any, based on the results of the monitoring should be offered to PMU to cover any deficiencies identified by the external monitor. PMU will accept the recommendations of the external monitor if it is within the scope of work and the assessment is found valid. .

- **Role of CONSTRUCTION SUPERVISION CONSULTANTS (CSC)**

The supervision consultant will provide appropriate protocol at site or at its project office for carrying out the external monitoring mission. It will ensure free access to work sites, impact areas and the database on resettlement and civil works. The supervision consultant will ensure timely intimation of its civil works planning as and when made or updated during the construction period and keep the external monitoring and evaluation consultant informed.

- **Responsibility of PRO/PRO**

The Project Resettlement Office (PRO) and PRO will assist and cooperate with the external monitor by providing free access to its database and the automated management information system (MIS). It will provide copies of the progress reports and other reports as requested by the external monitor.

- **Panel of Experts (POE)**

The POE will keep closer look into the activities of the external monitor in light of the social safeguard strategy and the involuntary resettlement guidelines. It will ensure timely response from the EA on queries and recommendations from the independent monitor.

Team Composition of the External Expert/Agency

The external monitoring expert/agency to be hired will consist of 3 to 5 experienced multidisciplinary specialists (plus the Team Leader) to provide services in the relevant safeguard areas. The monitoring focus should be on institutional arrangements, implementation strategy, policy objectives, and the targets. Data collection, processing and analysis to pin point problem areas and weaknesses, and to highlight on deserving measures to achieve the objectives on schedule should be carefully considered carefully. Further, it is essential that the Team have field level experience in similar work and skilled and trained in data base management and interview techniques and field studies. A more detailed team composition, qualifications and budget etc. for conducting the monitoring work over the project period will be prepared during the implementation period.

Time Frame and Reporting

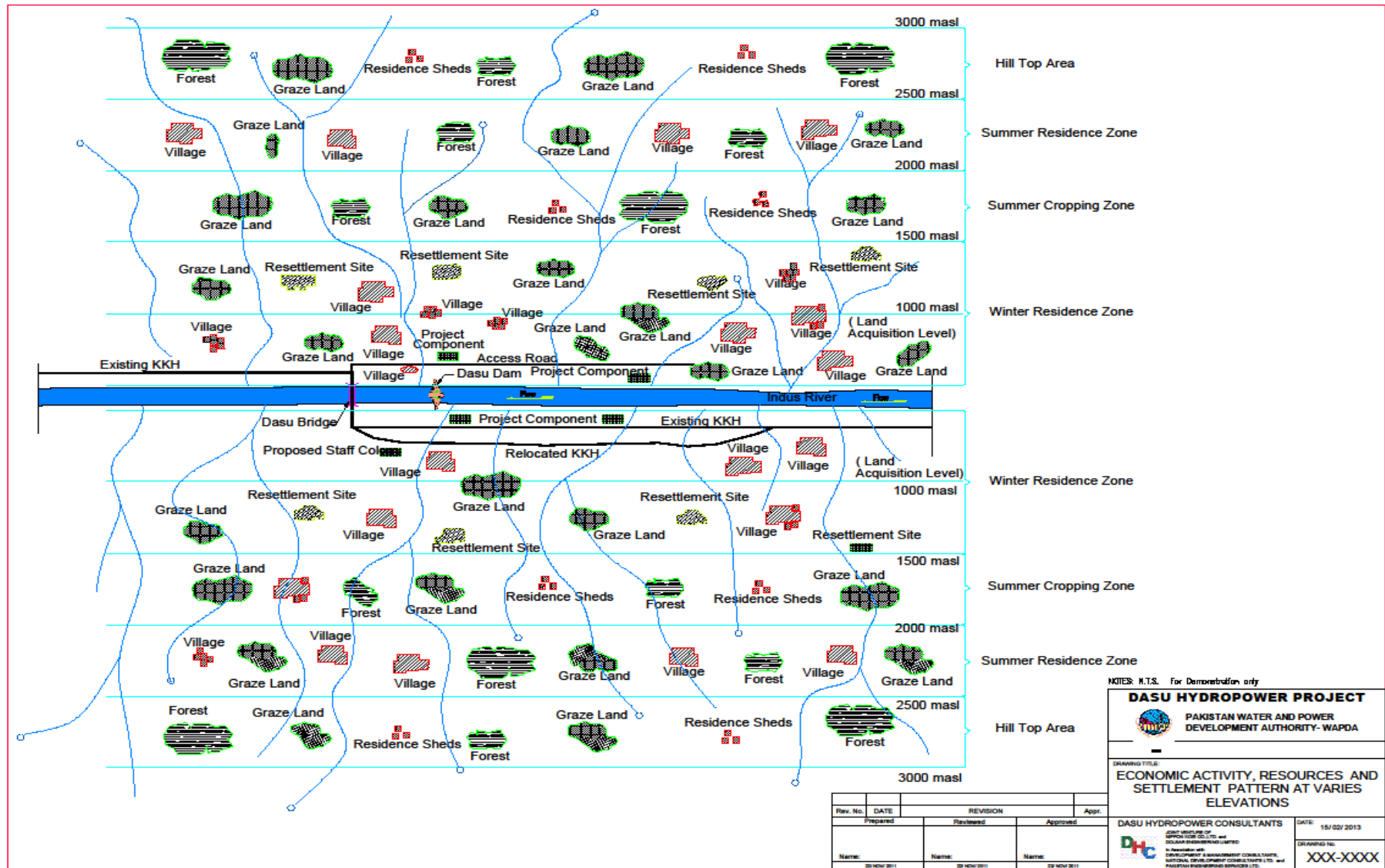
The monitoring expert/agency will be initially hired for 5 years (renewable, if required) with intermittent inputs. The expert/agency will submit bi-annual monitoring reports to WAPDA/PMU with copies to the World Bank. An evaluation report at the end of the

project should be prepared with critical analysis of the achievements of the program and performance of the project as well as PMU/PRO office. The external monitors will provide monitoring and evaluation report covering the following aspects:

- Whether the social and resettlement activities have been completed as planned and budgeted;
- The extent to which the specific objectives and the expected outcomes/results have been achieved and the factors affecting their achievement or non-achievement;
- The extent to which the overall objectives of the SRMP/RAP have been successful to restore pre-project level and/or improved social and economic status of the affected people and communities.
- Major areas of improvement and key risk factors;
- Major lessons learned and recommendations.

Formats for collection and presentation of monitoring data will be designed in consultation with PRO/PRO, CSC consultants and panel of experts.

Appendix I: Economic Activity, Resources and Settlement Pattern at Various Elevations



NOTES: N.T.S. For Demonstration only

DASU HYDROPOWER PROJECT

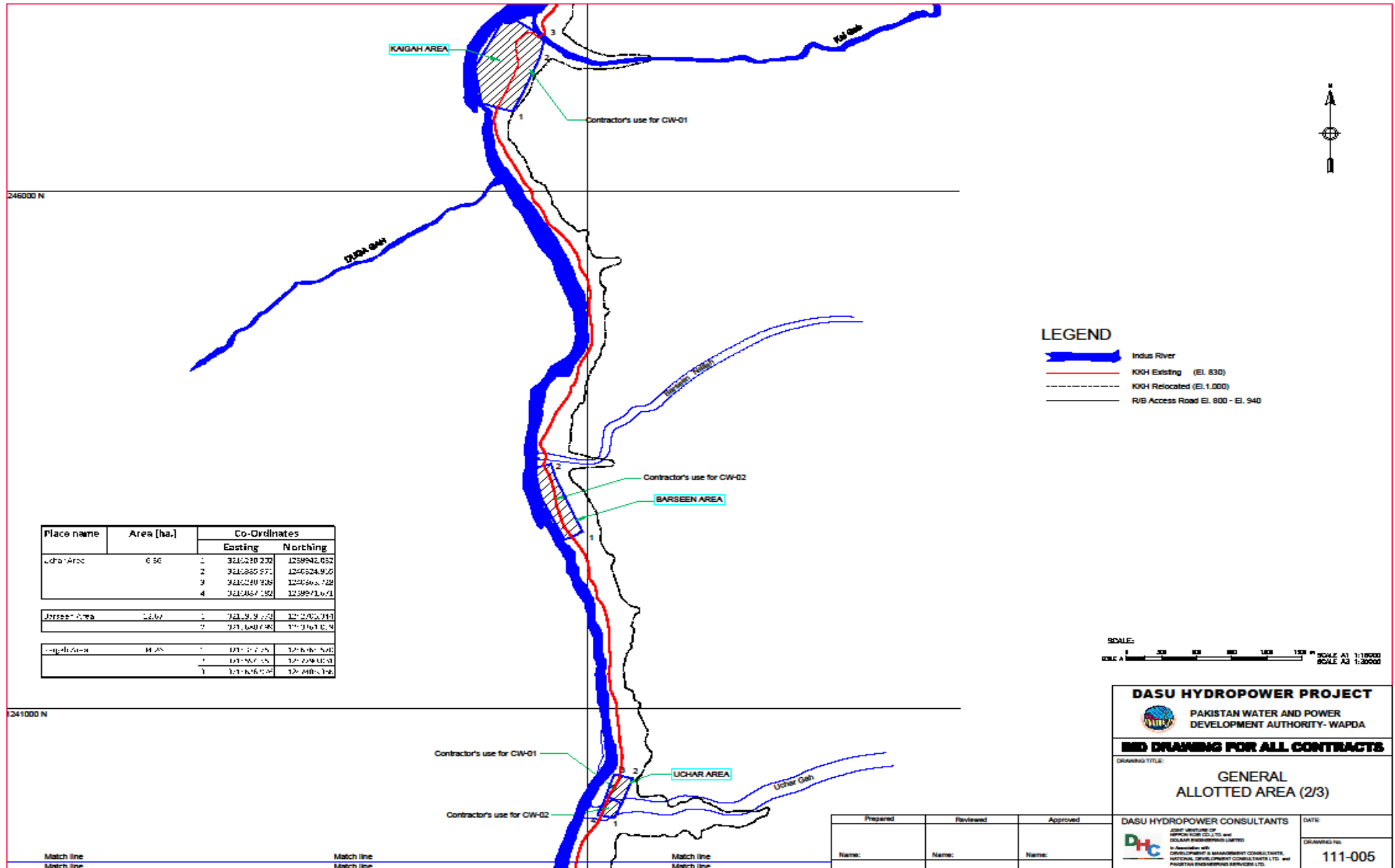
PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY- WAPDA

DRAWING TITLE:
ECONOMIC ACTIVITY, RESOURCES AND SETTLEMENT PATTERN AT VARIES ELEVATIONS

DASU HYDROPOWER CONSULTANTS
 DATE: 15/02/2013
 DRAWING No: XXX-XXXX

Rev. No.	DATE	REVISION	Appr.
Prepared		Reviewed	Approved
Name:		Name:	
22 NOV 2011		22 NOV 2011	22 NOV 2011

Appendix J: General Allotted Area



Appendix K: Affected HH and Population

Affected Population by Different Villages					
Sr. No.	Village Name	HH (No.)	Affected Population		
			Male	Female	Total
Right Bank					
1.	Komila	7	41	28	69
2.	Kass/ Zaal	1	5	4	9
3.	Rango	1	19	5	24
4.	Seo	6	61	40	101
5.	Siglo	109	579	639	1218
6.	Melaar	42	172	164	336
7.	Kuz Kai	14	84	59	143
8.	Kai Dogah	8	24	36	60
9.	Seer Gayal	56	239	265	504
10.	Kot Gal	32	128	91	219
11.	Waris Abad	13	46	49	95
12.	Not Bail	6	22	18	40
13.	Thuti	40	125	104	229
14.	Sluch	24	68	69	137
15.	Doonder	7	22	23	45
16.	Gummo	19	55	51	106
17.	Cheer Shial	8	38	47	85
	Total of Right Bank	393	1728	1692	3420
Left Bank					
1.	Chuchang	104	472	408	880
2.	Khoshi	4	30	33	63
3.	Logro				
4.	Uchar Nullah	42	177	190	367
5.	Barseen	36	116	126	242
6.	Largani	9	37	36	73
7.	Kaigah	49	274	314	588
8.	Gul e Bagh/Maidan	30	111	116	227
9.	Pani Bah	18	80	61	141
10.	Gadeer	5	25	28	53
11.	Chalash	11	41	37	78
12.	Looter	11	49	37	86
13.	Shori Nullah	10	61	55	116
14.	Summer Nullah	8	40	29	69
15.	Lachi Nullah	7	68	50	118
16.	Sazin Camp.	6	50	36	86
17.	Shatial	24	174	172	346
	Total of Left Bank	374	1805	1728	3533
	Grand Total	767	3533	3420	6953

Appendix L: Safeguards Disclosure and Information Booklet

PART I THE PROJECT

Introduction

The Dasu Hydropower Project (DHP) is a major investment project of capacity 4,320 MW proposed by the Government of Pakistan (GoP) with support of the World Bank to modernize and expand the energy in general and electric sector in particular of the country by shifting from thermal generated electricity to low cost and high reward, domestic and clean generation of hydropower. The DHP will inject annually about 18.445 million kWh to the national grid and will help to address Pakistan's acute electric power and energy crisis that causes adverse economic and social impacts across the country. The total installed capacity of 24,173 MW (including 7,114 MW from the existing more than 20 hydropower facilities) in Pakistan is unable to meet the current demand. Power Generation Policy 2013 of the present Government also emphasized the development of Indus Cascade (Diamer-Basha, Dasu, Pattan, Thakot and Tarbela 4th and 5th Extension). The DHP is one of the priority projects under the Power Policy 2013 and the Vision 2025. The DHP has three major components: (i) the main dam, powerhouse and its ancillaries, O&M staff residential complex, and allied facilities; (ii) realignment of about 70 km long stretch of the Karakoram Highway (KKH); and (iii) 350 km long two - 500 kV double circuit transmission lines for power evacuation from the powerhouse. The transmission lines will be implemented separately by the National Transmission and Dispatch Company (NTDC) of Pakistan which is no more part of WAPDA. Thus, the Project will bring direct social and economic benefits to local area in particular and to electricity consumers throughout the country in general. The project environment and social impacts studies have been carried using guidelines of International donors like World Bank, Asian Development Bank, etc. Before start of project construction activities it is mandatory for the project sponsors to disclose, the measures and mitigation proposed to reduce the foreseen impacts.

Purpose

The purpose of this booklet is to present the Project to the local stakeholders and disclose the Project's social and environmental impacts in a summarized form. The booklet will thus inform and enable the local stakeholders to understand the scope of the project, potential project impacts as identified, measures such as compensation, relocation and resettlement to be undertaken, entitlements against losses, role of the local communities in project implementation, and time line for implementation of various project components and; project delivery framework and mechanism by WAPDA. An Urdu version of this booklet will be prepared for distribution to affected households and communities.

Project Description

The Dasu Hydropower Project is located on the Indus River at a site about 7 km upstream of Dasu Bridge in the town of Dasu, the administrative headquarters of District Kohistan in Khyber Pakhtunkhwa Province. The Project lies about 350 km north of Islamabad, the capital city of Pakistan. Project site is accessible via the Karakoram Highway (KKH) which is linking Pakistan and China. The Dasu Hydropower is a run-of-river Project, involving the construction of a dam on Indus River and underground powerhouse, including associated hydraulic, electrical and mechanical works. The Project Layout Plan includes the components shown in Figure-1 and Table-1 to be constructed.

As a high RCC Dam, the reservoir extension will reach maximally 74 km upstream of the dam flooding an area of about 24 sq. km at a maximum flood level of 957m masl. The average river discharge at the dam site will be 2,068m³/s. The reservoir of the dam will submerge 62.5 km of the existing KKH on the left bank of the Indus River.

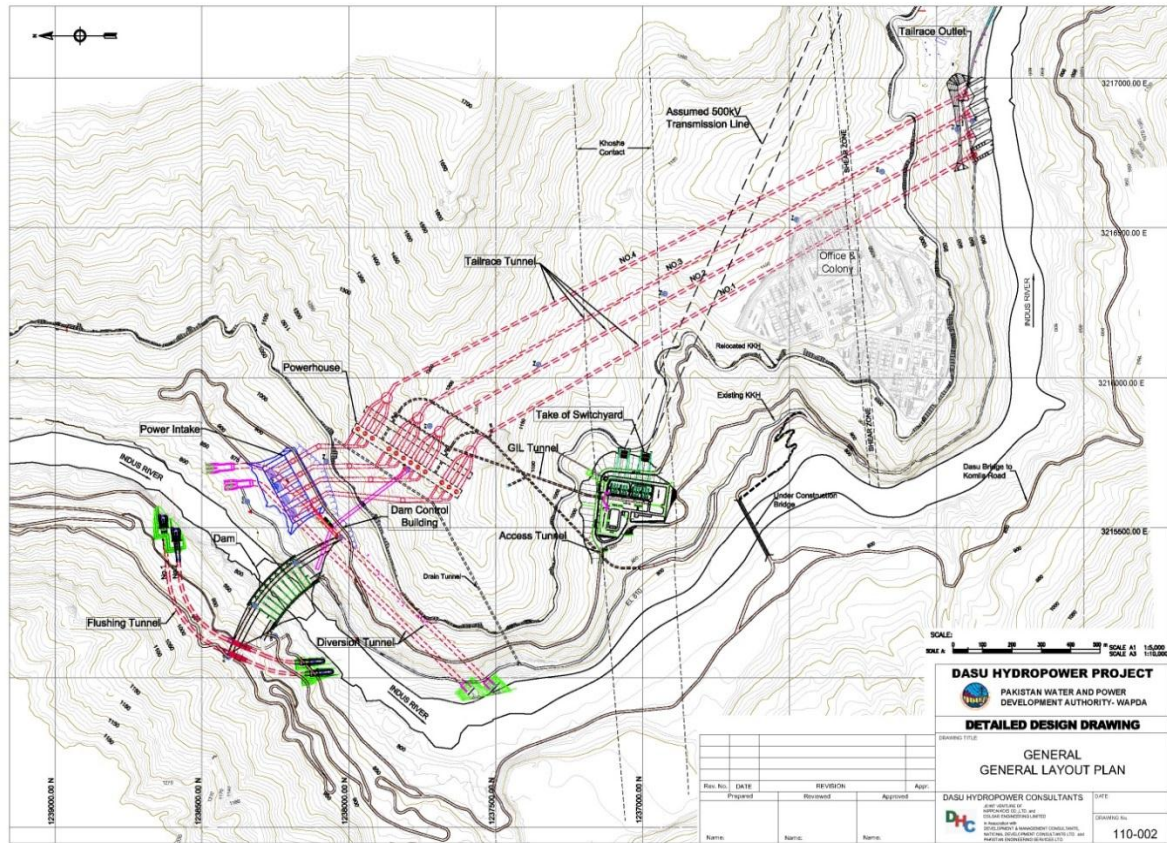


Figure: Project Layout Plan

New access road to the dam site at right bank will follow the current route of Komila-Seo road which is emanating from KKH before the Dasu Bridge. The contractor facilities will be on both right and left banks of the river. A concrete bridge is under-construction near Seo Village downstream of Dasu Dam site which would be used for project traffic to come from right bank to left and vice versa.

Table 1: Salient Features of the Project

Item	Detail
Location of DHP	Near Dasu town, District Kohistan, Khyber Pakhtunkhwa
Installed Capacity	4,320 MW
Total Energy	21,485 GWh/Annum
Catchment area at dam site	158,800 km ²
Type of dam	Gravity Dam in Roller Compacted Concrete(RCC)
Height above foundation	242 m
Crest Length at EL. 957m	570 m
Average Reservoir width	365 m
Diversion tunnels	2 No. on left bank side
Power house location	Underground type on left bank of the river
Power Tunnels	4
No. of Generating Units	12
Spillway Bays	8
Low level outlets	9
Flushing tunnels	2 No. on right bank side
Length of transmission line	350 km

PART II

SOCIAL IMPACTS AND MITIGATION MEASURES

Social and Resettlement Impacts

Despite measures to minimize impacts, the construction of the Project will have varieties of impacts on local communities. These include loss of agricultural and pastureland due to project colony and other infrastructure on downstream and inundation upstream, and loss of residential, commercial, business and community structures, requiring relocation and resettlement of households from 34 hamlet/villages in the valley. The Project impact assessment was carried out by social surveys, household census and hamlet-level community consultations. Many jirgas (tribal councils) were held with community, community leaders and maliks (tribal heads) during the impact assessment. As any one of you know that the entire assessment was made with the help of the community and supported by the local administration. The social impacts identified are summarized here.

Impact of Land Acquisition: In all, 4,643 ha of land will be acquired for the Project, which includes 143 ha of agriculture land. A total of 34 hamlets would be affected, displacing 6,953 persons. The acquisition will also affect 21,000 trees, including 18,000 bushes and non-fruit bearing trees while 3,000 fruit bearing trees on both sides of the riverbanks.

Impact on Structures: The structures to be affected including residential, commercial/businesses and community structures. The survey identified that 767 residential structures, 118 business structures (e.g., shops, roadside restaurants and hotels), 31 mosques, 10 (private) micro hydropower plants, 7 *doly* (manual cable car) for crossing of Indus river by peoples, 4 mechanical cable cars to transport timber, and two water mills. Aside this, the Project will affect 10 schools, 2 Basic Health Units (BHUs), one Pakistan Tourism Development Corporation (PTDC) Motel, 6 police check posts and one Frontier Works Organization (FWO) Camp. One mosque (at Seer Gayal) of historical significance and about 16 graveyards will be submerged. As per local religious leader, these graves will be protected by plastering with mud.

Impact on Livelihoods: Apart from the direct impacts on households, a total of 137 wage earners are recorded. Most of these employed as laborers are engaged in construction work in the area and transportation of timber from logging areas to KKH. A smaller number is employed as *Gujjars* looking after the livestock of *maliks*. The laborers engaged in construction works and transportation of timber may or may not be affected; even during relocation they would have more chance to earn more money due to shortage of such laborers. The people looking after their livestock have also less chance to loss their business, being a major livelihood activity in the area.

Additionally, a total of 68 households have been listed as socially vulnerable and require special attention. These include (a) hard core poor households; (b) female-headed households (FHH); and (c) households headed by disables persons. A summary of the Project impacts is in Table 2.

Table 2: Social and Resettlement Impacts – Summary

Description	Units	Quantity
Total Project Affected Persons (PAPs)	Persons	6,953
Total Project Affected Households (AHs)	Household	767
AHs losing agriculture land	Household	600
AHs losing businesses/commercial structure	Household	76
<i>Soniwals</i> losing livelihood only	Household	13
Vulnerable Households (VHs)	Household	68

Other Impacts: Other social and health impacts due to project construction include traffic safety hazards for children and the elderly, potential risk of dust, air, soil and water pollution, up and downstream impacts on fishery and fishing communities. Lastly new in-migrants (traders, businesses, etc.) to the project area with potential negative impacts on social and cultural aspects of the local community and additional pressures on the already poor infrastructure and social/civic amenities available in Dasu area have been recorded.

Social and Resettlement Management Plan

At the planning and design stage, attention was paid to the details to address all kinds of social/resettlement and environmental impacts of the Project. The Social and Resettlement Management Plan (SRMP) (14Books) has been prepared to address all aspects of project impacts, including relocation, resettlement, livelihoods, gender, and public health, management of construction-related impacts, grievances, in-migrants, and communications. Similarly, an Environmental Management Action Plan (EMAP) (8 Books) deals with all aspects of environmental management and enhancement needs.

Resettlement Policy and Framework

The resettlement principles and policy framework adopted in this project are derived from the Government of Pakistan laws, good practices in hydropower projects all over the World, especially in Pakistan and the World Bank policies and guidelines. The policy covers all affected persons irrespective of titled and/or severity of impacts. Key policies related to compensation, resettlement and livelihoods are as follows: (i) Replacement value (RV) of affected assets determined on rate basis negotiated by District Collector and with the affected Community/Jirga will be paid; (ii) displaced households will be resettled in project-sponsored resettlement sites with basic civic amenities; (iii) those managing their own relocation (i.e., self-relocation) will only receive assistance from the project as per the policy guidelines; (iv) resettled families in project sponsored resettlement sites will be entitled to various allowances such as relocation, transfer and reconstruction allowances as per the entitlement matrix; (v) the livelihoods of affected households will be restored with support from the Project, including training and employment in the Project; (vi) all affected commercial/business enterprises will receive assistance for relocation;(vii) the affected community structures will be re-constructed by the community with the compensation money, in consultation with the project wherever required and finally; and (viii) all resettlement and reconstruction works will be carried out in consultation with the affected communities.

Compensation, Rehabilitation and Entitlements

The entitlement matrix recognized 16 types of losses for compensation and rehabilitation of the affected households. Table 3 provides a summary of the entitlement matrix; the eligibility and implementation issues are available in SRMP Vol. 5 – Resettlement Action Plan (RAP).

Table 3: Entitlements against Losses – Summary

S. No.	Type of Loss	Entitlement to the Affectees
1.	Loss of agricultural land used in Terrace Cultivation	<ul style="list-style-type: none"> (i) Negotiated Value (NV) of agricultural land will be computed by the District Collector based on the unit rates agreed upon at Jirga. District Collector will determine the rates of land while considering the rates adopted by a recent hydropower project in Kohistan. (ii) Cultivable Plot (1/2 kanal) of land (if available and technically feasible for development) near resettlement site in the case of the families without residual land. (iii) Dislocation Allowance of PKR 500/- (five hundred) per kanal but the total amount will not exceed PKR 20,000/- (twenty thousand)
2.	Loss of homestead and commercial land	<ul style="list-style-type: none"> (i) Negotiated Value (NV) of land will be computed by the District Collector based on the Unit Rates agreed upon at a Jirga comprising VC and District Collector. (ii) Project through District Collector will pay for the land. (iii) Project is liable to provide basic infrastructures at new resettlement area such as access road, drinking water and sanitation system. Agriculture water supply will be provided if land for agriculture is available near resettlement site. Current electricity systems will be shifted to the resettlement villages; (iv) Affected owners will be entitled to a plot in new resettlement site developed by project either small (5 Marlas) or large (10 Marlas) based on their homestead plot size in the “original” village. These plots will be given free of cost if land for resettlement is provided by the resettling community free of cost and on subsidize rate in case land for resettlement site has to be acquired by the Project (v) The affected households moving and settling outside the project resettled developed site will be eligible of getting a special allowance for relocation @ Rs. 50,000/- in addition to their actual compensation. These affectees would not be eligible to have a developed plot in resettled. (vi) Owners will be allowed to take away all salvageable materials free of cost.
3.	Loss of communal properties and	<ul style="list-style-type: none"> (i) Negotiated Value (NV) of land will be computed by the District Collector based on the Unit Rates agreed upon at a Jirga comprising VC, and District Collector,

	resources	<p>and will be paid to the VC.</p> <p>(ii) A plot in community-based resettlement site developed by project for each communal property as schools, mosque, burial ground, health center, community center etc. will be provided free of cost if land will be provided free. Free plot will be provided if no compensation would have been paid to Village Committee.</p> <p>(iii) The Village Committee will construct the common properties at each resettlement site with planning inputs and monitoring by Project of each resettlement site.</p> <p>(iv) Community will be allowed to take away all salvageable materials free of cost.</p>
4.	Loss of Residential Structures	<p>(i) Applicable to all structures located within the acquisition areas.</p> <p>(ii) District Collector with expertise from Communication and Works Department will determine the RV based on the Unit Rate agreed at the Jirga will compute the RV. When necessary, PRO will be employed to verify structures eligible for RV and other assistance.</p> <p>(iii) The affectees settling in the project developed resettlement sites will be eligible for the following in addition to their actual compensation cost.</p> <ul style="list-style-type: none"> • Transfer/relocation Grant @ PKR 100/- (one hundred) per square meter of affected structure. • Reconstruction Grant @ PKR 250/- (two hundred and fifty) per square meter of affected structure. • Special Assistance of one-time payment of PKR 5000/- (five thousand) for each female, disabled, elderly headed and very poor households. <p>(iv) The households moving and settling outside the project district will be eligible of getting a special allowance for relocation @ PKR 50,000/- (fifty thousand) in addition to their actual compensation and other allowances. These will not be eligible for a plot in the resettled site developed by the project.</p> <p>(v) Owner will be allowed to take away all salvageable materials free of cost.</p>
5.	Loss of Commercial Structure	<p>(i) Applicable to all structures located within the project affected area at cut-off date.</p> <p>(ii) Jirga of affected villagers and District Collector with expertise from C&W will determine the RV.</p> <p>(iii) Transfer Grant @ PKR 100/- (One hundred) per</p>

		<p>square meter of affected structure.</p> <p>(iv) Reconstruction Grant @ PKR 500/-(Five hundred) per square meter of affected structure.</p> <p>(v) Owner will be allowed to take all salvageable materials back free of cost.</p>
6.	Loss of Physical Cultural Resources and graves	<p>(i) .Applicable to the structures identified in the PCR Plan</p> <p>(ii) Cost of dismantling, moving and reconstruction of the 400 year Mosque at Seer Gayal.</p> <p>(iii) Cost of land to relocate the Seer Gayal Mosque</p> <p>(iv) Cost of protecting the submerged graves with mud plaster.</p> <p>(v) No rock carving would be affected by the project.</p>
7.	Loss of Timber and Fruit-bearing Trees	<p>(i) Applicable to all trees and plants located in acquisition area at cut-off dates.</p> <p>(ii) Replacement value (RV) of timber and fruit bearing trees determined on rate basis negotiated by District Collector with the help of Department of Forest and Agriculture and with the affected Community/Jirga will be paid. In addition the following will be paid;</p> <ul style="list-style-type: none"> • Fruit-bearing trees: if the tree is at or near fruit-bearing stage, the estimated current market values of the fruit produce for 3 seasons; and <p>(iii) Owners will be allowed to fell trees and take the timber, free of cost.</p>
8.	Loss of Standing Crops	<p>(i) Applicable for all crops standing on land within the acquisition area at the time of dispossession.</p> <p>(ii) District Collector with assistance from Department of Agriculture will recommend RV of crops at harvest.</p> <p>(iii) Crops grown after dispossession will not be paid any compensation.</p> <p>(iv) Owners will be allowed to harvest of standing crops prior to inundation.</p>
9.	Loss of Leased/Mortgaged Land	<p>(i) With customary tenancy agreements, including socially-recognized verbal agreements, owner will receive compensation payment from District Collector. The owner will pay the outstanding liabilities to the lessee/mortgagee under the conditions that: (i) all contractual liabilities are already paid up; (ii) if not, the legal owner will get the residual payment after all liabilities are paid up.</p> <p>(ii) District Collector will ensure the payment of RV of crops to the cultivator.</p>

		(iii) Dislocation Allowance will be paid to the actual cultivator of the acquired land by District Collector. Dislocation allowance @ PKR 1,500/- (fifteen hundred) per kanal for actual cultivator to cover the income loss from the land
10.	Loss of Income from Displaced Commercial Premise	<p>(i) Grant for Loss of Business @ 10% of compensation payment determined by District Collector's payment for commercial structure.</p> <p>(ii) One time Moving Assistance of PKR 5,000/- (five thousand) for tenants.</p> <p>(iii) Affected businesses to be relocated to the new market area to be established in nearby resettlement site or along KKH.</p>
11.	Temporary Loss of Income (wage earners in agriculture, commerce, small business and industry)	<p>(i) Grant to cover temporary loss of regular wage income @ PKR 200/- (two hundred) per day for only 90 days PKR 18000/- (eighteen thousand only) for farm labor; PKR 200/- (two hundred) per day for only 90 days PKR 18000/- (eighteen thousand only) for <i>Gujjars</i> employed to look after livestock; PKR 250/- (two hundred and fifty) per day for only 90 days PKR 22500/- (twenty two thousand five hundred only); for wage worker at hotel/shops and restaurant PKR 300/- (three hundred) per day for 90 days PKR 27000/- (two thousand only);</p> <p>(ii) A one-time grant of PKR 150,000/- (one hundred and fifty thousand) for <i>Soniwals</i> (identified during survey) per households engaged in gold extraction in the project affected area.</p> <p>(iii) Effected Person must have been an employee of landowner or business located in the acquired lands for at least twelve months, as identified by the Census conducted by the Consultants (DHC Census).</p>
12.	Loss of income from rented-out and access to rented-in residential and commercial premises	<p>(i) Each renter of affected premises will be entitled for the dislocation allowance. The owners of rented out premises will be entitled for dislocation allowance for each unit of premises rented out to separate families or persons.</p> <p>(ii) One time allowance of loss of income from rent in and rent-out be paid as PKR 10,000/- (ten thousand) to owner and renter.</p>
13.	Households losing more than 10% of their income (from agriculture or business) due	(i) One time Dislocation Allowance @ PKR 10,000/- (ten thousand) per household as identified by the census conducted by Dasu Hydropower Consultants.

	to the Project	
14.	Loss of livelihood (non-cash entitlement)	<ul style="list-style-type: none"> (i) Jobs in the project will be provided to the people of affected area. In providing jobs in the project the following priority would be followed (i) peoples from affected villages, (ii) peoples from sub-district Dasu and Kandia, (iii) peoples from sub-district Pattan and Palas; and (iv) peoples from other part of the country. (ii) Free Vocational Training will be provided to the people of affected area. (iii) Free horticulture training will be provided to the people of affected area. (iv) Training in fish hatchery operations and sustainable fishery will be provided to the people of affected area. (v) Inclusion in area development programs implemented with Area Development Fund.
15.	Loss of Public Structures such as Hospital/Dispensaries, School, etc.	<ul style="list-style-type: none"> (i) Replacement of affected structures (ii) WAPDA and concerned department with the help of District Collector will be responsible for the replacement of the affected public structures at appropriate site with the financial assistance of the project (iii) After the construction of the affected public structure, the said structure will be handed over to the concerned department who will be responsible for the further maintenance and operation.
16.	Unforeseen adverse impacts	Entitlements will be determined as per the resettlement policy framework and will be paid after approval by WAPDA Authority and World Bank

Resettlement Site Development

During the District-level *Jirga* and subsequent *Jirga's* in the villages, the affected communities expressed their preferences to be relocated at higher elevations within the same valley, because they do not want to lose their entire land, life style, culture, etc. The affected villages are currently located above the river bank on both sides of the River Indus at an elevation of 700 to 800masl. These would be affected by the reservoir created by construction of dam, by camp sites, O&M staff housing colonies, relocation of the KKH and right bank Access Roads. The resettlement sites will be developed at an elevation of 1000 to 1300masl with provision of utility services (Road, Water Supply System, Sewage system and electrification of Resettlement Villages based on their current electricity system) by the Project at project cost. The site-specific topographic survey, master planning and designs will be prepared and shared with the affected resettling community before finalization. Site development will also be carried out in consultation with village level committees. Plot size and allocations are already defined in the matrix but will likely be adjusted to project-specific conditions and arrangements.

Based on the *jirgas* and community responses, relocation to higher elevation to places of own their choices were considered the best solution to relocation and resettlement of the

affected households. A small percentage has expressed interest to move on their own to Dasu/Kohistan and out of District as far as Mansehra and Abbottabad districts due to their kinship links in those places and/or availability of cheaper land for resettlement, including more job prospects in the cities. Thus, the self-managed relocation is also considered an option for those who want to move out of the Project area.

Grievance Redress Mechanism

A grievance redress mechanism will be established to allow affected persons/families appealing against any decision, practice or activity arising out of survey, data collection, compensation rates/awards, and resettlement-related benefits (grievances could also be caused by other social and environmental impacts/issues). Affected households will be fully informed of their rights and of the procedures for addressing complaints under GR procedures during Project information disclosure at various village/community meetings and Jirga's. The Project will establish a four-tier Grievance Redress Committees (GRCs) for resolution of grievances and disputes related to social and environmental safeguard plans. Also, necessary training to the GRCs members will be provided by the Project. The GRCs are to ensure accessibility, fairness and independence of the procedures. The GRCs will be established "bottom top" that would include: (i) Village-level GRC, (ii) Union council level GRC (iii) District level GRC and (iv) Project level GRC. First, GRC at the village level consisting of local representatives of the affected community or *maliks* or village elders, project staff, and local government representatives and will receive grievances and resolve locally within a defined timeline. Cases which will not be satisfactorily resolved or affected persons remain aggrieved, the case will be forwarded to union council level GRC and if not solved there, the case then will be forwarded to district level GRC with full documentation and history of the case(s). If at all the previous levels may not solve cases up till the district-level, will be forwarded to the Project-level independent GRC as the prime floor for resolution of the grievances.

RAP Implementation Schedule

A year-wise relocation plan has been established in view of the implementation of various project components (Table 4). All relocation and resettlement activities will be completed by Year 4 of the Project implementation.

Table 4: Year wise RAP Implementation Schedule

S. No.	Year	Construction Activities	Affected Villages
1.	Year1	WAPDA Colony & Offices, KKH 01, Right Bank Access Road (RAR 01), Disposal Site,	Shaal, Chuchang, Khoshi, Logro, Usher, Barseen, Largani, Gul-e-Bahg, Komila, Kass, Seo,
2.	Year 2	Quarry Area, Dam Site area, Batching Plants, Material Storage area, Contractor Camps,	Siglo, Seo, Dogah, Kaigah, Kass, Zaal Komila
3.	Year3	KKH-02 and RAR-02,	Dhar, Pani Bah, Gadeer, Chalash, Looter, Shigri, Summar, Lachi Nullah, Malar, Kuz Kai, Bar Kai, Kuz Purwa, Seer Gayal, Kot Gal, Not Bail,
4.	Year4	Reservoir, RAR 03and Bridge at Kandia	Sluch, Serto, Thuti, Waris Abad, Cheer Shial, Doonder, Gummo, Sazin Camp, Shatial

Charter of Demand and Responses

During the engineering design period, a grand Jirga submitted a 15-Point demand that included compensation at market rates, establishment of Vocational Training Centre, new modern clinic and hospital in the project area, new access roads in the valley, relocation of the affected hamlets and households with modern amenities, provision for employment in the Project, supply of free electricity, and provisions for a 20% royalty from power generation for use and investment in affected areas and in general in Kohistan District.

WAPDA has responded to these demands very positively, including compensation rates and relocation in project-sponsored resettlement sites. In addition, as a strategy, WAPDA will establish community education, training and health infrastructures under the Project for skill development for income and livelihood support, community health and wellbeing. The Project has included (a) two vocational training centers (one for male and another for female students); (b) construction of approach roads on both right and left banks to help transportation and thus enhance economic activities in the area; (c) establishment of livestock centers for improved livestock breeding; and (d) hatcheries and raceways for fishery development as long-terms sources for livelihoods. However, demands which relates to Provincial and Federal Government the Project will coordinate and cooperate with affectees and district administration for processing at appropriate level.

SRMP Implementation Organization

As the project executing agency, WAPDA will be responsible for the implementation of social and resettlement management plan. An institutional and implementation framework has already been set up under the Project Management Unit (PMU). Under the GM/CEO of the PMU, an officer at the rank of Chief Engineer (Deputy Project Director) will be responsible for Social/Environmental Safeguards, with two Directors – for (a) Social and Resettlement and (b) Environment Units. These Units will be fully staffed with experienced local officers/officials for implementation of land acquisition, resettlement, livelihood, communications, gender and public health plans. The Deputy Project Director – Safeguards will be assisted by the Local Leading Group consisting of members of local administration, *maliks* and community representatives. The Project Construction Supervision Consultants (CSC) will provide technical guidance and will play an important role for the implementation of all plans prepared under social and environment studies. Project management and monitoring consultants will look after the implementation plans by Deputy Project Director and CSC and will issue advice and direction where find necessary. An NGO may be hired for implementation of livelihood, communication and public health plans

The field offices will be considered Public Information Centers (PICs) where all SRMP and EMAP documents, survey/household level data, Project maps and other relevant documents will be on display and readily available to the public and other stakeholders.

PART III

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impacts

Environmental impacts resulting from implementation of DHP will be unusually limited in number for a mega project of this size due to limited inundation area and low biodiversity within the inundation area, and engineering designs adopted for the DHP to reduce the Project's environmental footprints. The DHP will have overall positive impacts and some negative impacts. Potential negative impacts of the DHP during various stages of implementation have been assessed and mitigation measures recommended for all identified environmental issues. A summary of DHP's potential environmental impacts and proposed mitigation measures are given in Table 5.

Table 5: Potential Environmental Impacts and Mitigation Measures of DHP

Potential Environmental Impacts	Mitigation Measures
Impacts of Construction of DHP	
Inundation of 46 km of KKH running along left bank of Indus River in future reservoir.	Reconstruction of 70 km KKH along the left bank of Indus River at a higher elevation above the reservoir level.
Loss of access from KKH to villages on the right bank due to future submergence of bridges on Indus at Largani & Kandia, and few cable trolleys for transportation of peoples and wood logs.	In order to restore the access in better condition a new bridge will be constructed at 8 km upstream of existing Kandia bridge. A new 35 km of access road will be built from this new bridge to Dam site along right bank of Indus. Also a new 18 km jeep able track will be constructed from new Kandia bridge to Looter along right bank of Indus river.
Submergence of a beautiful wood decorated Seer Gayal mosque under future reservoir.	A new mosque will be constructed in the new resettlement village of Seer Gayal by using the existing wood work of the mosque as much as possible.
Submergence of about 17 No. graveyards under future reservoir.	In accordance with the decision of local religious leaders and elders, the graveyards will be protected and plastered with mud to avoid collapse of graves and floating of human remains.
Loss of natural vegetation and some 21,000 trees and shrubs.	Plantation of more than 100,000 trees (at the rate of 5 trees per each tree cut) in reservoir buffer areas, WAPDA colony & offices, and all along the resettled villages.
Impacts during Construction	
Traffic related Impacts such as traffic jams, congestion, safety, pollution, noise, etc. in the town of Dasu, Komila and along KKH due to increased traffic (about 200 to 300 vehicles per day to transport construction material from down country).	Traffic management units at Dasu, Besham and Haripur towns will be established to control traffic along KKH starting from Hassan Abdal to Dam site. Traffic personnel on ground to guide traffic and installation of sign boards at proper location in Dasu Town and in project area.

Potential Environmental Impacts	Mitigation Measures
	<p>Training and provision of more resources to local traffic police to cope with the traffic movements.</p> <p>KKH-01 will be constructed first and be made operational before start of construction of dam in order to make traffic flow.</p>
<p>Potential risk of dust, air, soil and water pollution from the construction activities and machinery.</p> <p>Noise from the construction works and blasting activities.</p>	<p>An environmental management plan is prepared with necessary mitigation measures (e.g. dust suppression by watering, noise attenuation measures, etc.) to address all these construction related impacts. These plans will be implemented by contractor under the supervision and strict guidance of Deputy Project Director Safeguard.</p> <p>Noise & air emissions and waste water discharges from the construction activities have to meet with Govt. of Pakistan's National Environmental Quality Standards. Monitoring and enforcing lies with Deputy Project Director Safeguard.</p> <p>Control blasting will be done in day time. Blasting during night is not allowed. Regular monitoring will be taken up to ensure that blasting follows the National and International standards.</p>
<p>Impacts (dust, noise, water pollution, etc.) from the quarrying activities at Kaigah and transportation to dam site.</p>	<p>In addition to above, controlled blasting activities with optimum blasting quantities will be used to avoid any impacts on nearest villages and wildlife areas.</p> <p>A belt conveyor system will be established for transportation of aggregates from Kaigah to dam site.</p>
<p>Disposal of 10.25 million tons of excavated rock (spoils).</p>	<p>Nearly 50 percent of excavated material will be used as aggregates in concrete works.</p> <p>Remaining will be disposed in an orderly manner in 68 ha of disposal area in Kass and Khoshee area. A fencing wall will be constructed around the disposal area. Erosion control measures such as landscaping will be done. These sites would be used in future by Public for residential or agriculture purposes.</p>
<p>Risk of pollution from solid waste and waste effluents.</p>	<p>Solid waste disposal sites will be developed in consultation with local government, contractors and project authorities.</p> <p>Waste effluent without any treatment will not be discharged directly in to water bodies.</p> <p>Sitting of fuel and hazardous material storage will be located minimum 100 m away from banks of any streams and 500 m away from residential areas.</p>

Potential Environmental Impacts	Mitigation Measures
Increased risk of landslides due to excavation and blasting activities.	Landslide prone areas are identified and structures such as retaining walls constructed to prevent land sliding in future. Continuous monitoring by the Deputy Project Director will be taken up during construction, filling of reservoir and also during operation.
Impacts of increased human activities on forests (due to increased demand for fire wood and forest products).	Construction workers will be prohibited from cutting of trees and buying of illegal firewood and illegal forest products from the local community/market. Contractors will be directed to provide non timber fuel to the construction workers for cooking and heating. The Project authorities will assist and inform the local government the need of developing LPG market to reduce the pressure on the demand for firewood.
Impact on wildlife due to poaching and noise from construction and blasting activities	Construction workers will be prohibited from poaching of wildlife. Community wildlife development activities will be promoted by Project.
Influx of in-migrants (Construction workers and their families, business people etc.) to the project area with impacts on social and cultural aspects, and additional pressures and stresses on the already existing infrastructure and social/civic amenities available in Dasu area.	Local communities will be given preference in employment in construction workers. A series of measures will be taken to avoid any negative impact on local situation by improving local infrastructure, developing construction camps and housing for workers; health facilities; improvements in security; and strict code of conduct for the construction workers to respect local norms and culture.
Impacts during Operation	
Impact of first filling of reservoir on safety of people and livestock and stability of slopes.	Early announcement and warning system be established before the day/date of start of filling. Controlled filling of the reservoir to avoid landslides.
Impact on fish habitat (including spawning grounds) due to reservoir formation and fish movement due to dam.	A hatchery will be developed for artificial production of fingerlings of native fish species (snow carps) and regular fish stocking in the affected tributaries and downstream of the dam. Fishery will be developed in the proposed reservoir with necessary infrastructure.
Impact on fish and aquatic resources due to no flow from the dam during low flow season of October to May.	An environmental flow of 20m ³ /s will be released to maintain water between dam and tailrace.
Impact of sedimentation on reservoir	Flushing of the reservoir after 15 years if there will be no Basha Project or after 50 years if there will be Basha Project (which will stop the sediment inflow to Dasu reservoir).

PART IV

FREQUENTLY ASKED QUESTIONS

A list of frequently asked questions related to compensation and resettlement is presented below for further clarity.

Q1: Who are project-affected persons?

Project-affected persons are those who stand to lose due to the Project all or part of their physical and non-physical assets, including homes, communities, productive lands, resources such as forests, range lands, fishing areas, important cultural sites, commercial properties, tenancy, and income-generating opportunities. Such impacts may be permanent or temporary.

Q2: Who are eligible for compensation and rehabilitation?

The policy framework adopted is inclusive. It recognizes all persons affected by the projects as eligible for compensation and rehabilitation irrespective of legal or titled ownership. For example, sharecroppers, tenant farmers, employees in a shops/business affected by the project are all eligible for compensation and assistance. The amount and the level of compensation and other allowable benefits may depend on the nature of losses incurred by an individual or a household unit.

Q3. Where do I get Project-related information, including compensation and resettlement packages?

The Resettlement Action Plan (RAP) and all other books related, project database, maps, graphs, project implementation schedules etc. will be available in PMU Office in Dasu as well as at the Public Information Centers(PICs) in the office of Deputy Project Director at Dasu. The documents will also be posted at www.wapda.gov.pk.

Q4: How do I get fair compensation for land and affected structures?

A fair compensation implies replacement costs for assets lost due to project intervention. Replacement costs are equal to market costs, plus transaction costs only if the markets reflect reliable and registered by the District Revenue Department information about prices and availability of alternatives to the assets lost. In the case of Dasu Hydropower Project, the District Revenue Officer (DRO) will negotiate with the affected households/communities the price for land and structures, based on current value and replacement and/or reconstructed costs, including transaction costs and shifting.

Q5: Can anyone and everyone living in the Project area claim compensation?

No. Only eligible and project-affected families identified by the Deputy Commissioner/District Collector and/or by Project census "cut-off date" can claim compensation. Any one moving to the project-affected area after the "cut-off-date" to get compensation from the Project will not be entitled to compensation or any other form of resettlement assistance.

Q6: Are people affected indirectly eligible for compensation?

The basis for defining eligibility is the direct loss of assets, subsistence or income affecting livelihood. However, those indirectly affected (e.g., loss of wages due to access to land acquired and/or business affected) are also eligible and has been incorporated in the entitlement matrix. The key point is how the “indirect” impact is defined – both for identification and implementation purposes.

Q7. Do I need to vacate and clear the affected properties immediately after they have been identified as required by the project?

No. Clearing the affected areas/structures will only take place after the compensation for lost assets have been provided to you. After payment of compensation, you will be notified by DC to vacate the land and move with whatever salvageable for self-relocation or to project-sponsored relocation sites.

Q8.What kind of civic amenities would be available in the resettlement sites?

The project-sponsored resettlement sites will be provided with basic civic amenities such as access roads, drinking water, existing power supply system relocation, sewerage and internal roads. Water for irrigation will be provided where land for agriculture is available. The resettlement sites will be designed in consultation with the affected and host communities. Your inputs would be considered valuable.

Q9: If there are disputes over compensation and resettlement issues, do I have the right to complain, and if so, how and where?

Yes, you can absolutely do that. Any affected persons and/household may file a complaint or grievance to Grievance Redress Committee (GRC) regarding resettlement or any other matters, including environmental issues. The complaint should be submitted initially to the Village Level GRC. The Project has a four-tier GRC with stakeholders’ representations at village, union council, district and project levels. During the Project implementation phase, you will be informed through open consultation, personal contact and written documents about your right to grievance redresses.

Q10: When does the project construction start?

The Project will be implemented in phases. In Year 1, the pre-construction project activities such as Right Bank Access Road, KKH Re-alignment, WAPDA Colony and Offices, Dumping Site, Machinery Yard, 132 kV transmission line, two Vocational Training Institutes, etc. will start in June 2014. PMU Office has drawn a detailed year-wise plan and all safeguard activities will be synchronized with the construction plan for the Project. The safeguard unit will inform you of the schedule and assist you in relocation and resettlement activities as per the schedule.

Appendix M: List of All 767 Affected Households with Names, IDs and Impacted Assets

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
1.	R01	Barseen	Muhammad shahzada	Amaan Ullah	1340191723875	37	7.6	40
2.	R02	Barseen	Amaan ullah	Toka Malik	1340181144615	35	3	67
3.	R03	Barseen	Soon mian	Barkash	1340115048077	160	5.1	59
4.	R04	Barseen	Hassan shah	Abdul Gaffar	1340102053007	115	6.4	49
5.	R05	Barseen	Hikmat khan	Abdul Gaffar	1340162691541	45	2.4	56
6.	R6	Barseen	Abdul gaffar	Toka Malik	1340115094773	15	7.1	79
7.	R07	Barseen	Munawar shah	Abdul Gaffar	1340117094231	33	6.67	45
8.	R07	Barseen	Hazir khan	Amaan Ullah	1340115094299	275	5.3	33
9.	R11	Barseen	Rahmat deen	Zareen	1340103599731	10	2.9	35
10.	R12	Barseen	Ahsam-ud-din	Zareen	1340115087703	22	3.5	36
11.	R13	Barseen	Asghar khan	Muhammad Sher	1340197239599	45	4.3	15
12.	R14	Barseen	Gul badshah	Muhammad Sher	1340177947407	40	5.66	26
13.	R15	Barseen	Muhammad sher	Keriya	1340160296901	120	2.9	51
14.	R16	Barseen	Bahram malik	Barkati	1340115033937	120	19.22	46
15.	R10	Barseen	Zareen	Jadan	1340111781207	15	9.5	26
16.	R09	Barseen	Abdul hadeen	Zareen	1340148991829	15	7.25	37
17.	R17	Barseen	Roum mian	Barkati	1340115033935	230	12.88	14
18.	R18	Barseen	Muhammad sakhi	Roum Mian	1340136135213	10	4.2	28
19.	R19	Barseen	Syed jamil	Qalandar Khan	1340172907583	10	0	58
20.	R20	Barseen	Sabar jamil	Tahir Khan	1340115113419	202	7.3	10
21.	R21	Barseen	Molana abdul qayyum	Muhammad Tahir	1340115111307	100	2.64	17
22.	R22	Barseen	Ameer shah	Adarman	1340120136627	210	1.19	2
23.	R23	Barseen	Dodo	Majdeen	1340143862189	0	0.77	3
24.	R24	Barseen	Ameer zada	Sher Ghazi	1340115111607	102	2.18	18
25.	R25	Barseen	Sher ghazi	Be Khan	1340115111625	201	3.45	18
26.	R26	Barseen	Muatbir shah	Adarman	1340115092127	201	3.08	4
27.	R17	Barseen	Faqeer shah	Jee Khan	1340115111433	301	8.5	40
28.	R28	Barseen	Gulab shah	Adarman	1340115091819	151	7.25	24
29.	R29	Barseen	Anwar shah	Adarman	1340115092221	160	3.5	16
30.	R30	Barseen	Noor wali shah	Munawar Shah	1340173475637	201	3.3	17
31.	R31	Barseen	Jundar shah	Sher Zaman	1340115114173	300	3.3	29
32.	R32	Barseen	Jahangir shah	Sher Zaman	1340115114049	300	13.61	10
33.	R33	Barseen	Shabir ahmad	Shah Alam	1340151796989	115	5.59	31
34.	R34	Barseen	Iqbal khan	Toheen Khan	1340158602819	51	6.5	23
35.	R35	Barseen	Qadar muhammad	Maaz Ullah	1340172939207	110	7.34	35
36.	R36	Barseen	Abdul hameed	Qaseem Khan	1340157649951	103	2.4	31

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
37.	R01	Chalash	Fazal ilahi	Makir Khan	1340109190955	25	4.6	18
38.	R02	Chalash	Ahmed khan		1340137947025	14	2.66	19
39.	R03	Chalash	Saeed ahmed	Abdul Hakeem	1340171373935	30	4.39	29
40.	R04	Chalash	Saeed rahman	Molvi Abdul Hakeem	1340131649959	9	2.23	11
41.	Ro5	Chalash	Saeed ul zaman	Molvi Abdul Hakeem	1340187488525	25	3.4	23
42.	R06	Chalash	Bahseer khan		1340180823637	70	1.36	35
43.	R07	Chalash	Yasir khan	Mehar Gul Shah	1340164175753	20	1.33	18
44.	R08	Chalash	Saliha muhammad	Mehar Gul Shah	1340148533333	60	2.07	31
45.	R01	Chalash	Saliha(resp)			18	1.41	2
46.	R02	Chalash	Saliha(resp)			12	2.8	4
47.	R03	Chalash	Saliha(resp)			15	2.71	6
48.	R03	Cher Shial	Gul muhammad khan		1340177587381	207	2.9	21
49.	R04	Cher Shial	Darya		1340115001791	350	3	35
50.	R02	Cher Shial	Badeem khan	Qadieer Khan	1340171790293	250	4.5	21
51.	R01	Cher Shial	Azeem	Qadieer Khan	1340115030311	200	4.5	34
52.	R5	Cher Shial	Muhammad bashir	Anwar	1340127243023	65	1.5	38
53.	R06	Cher Shial	Koshal khan	Darya	1340115093093	270	3	26
54.	R07	Cher Shial	Alam sheer	Anwar	1340162587263	30	2	17
55.	R08	Cher Shial	Sabir khan	Shar Khan	1340191434473	600	3.5	20
56.	R9	Cher Shial	Sabir khan (resp)	0	0	5	4	4
57.	R-61	Chuchang	Abdul jeel	Sabat Khan	1340143001967	106	2.9	28
58.	R-62	Chuchang	Zakir shah	Naqeeb	1340115108273	20	3.67	1
59.	R-63	Chuchang	Shabir khan	Molvee Mehran Shah	1340115005833	13	3.88	5
60.	R-64	Chuchang	Chalo khan	Khatha Khan	1340110330337	45	3.34	4
61.	R-65	Chuchang	Mehran shah	Khatha Khan	1340115049215	28	6.22	19
62.	R-66	Chuchang	Doshim khan	Narang Shah	1340115031925	16	6.5	3
63.	R-67	Chuchang	Shafeeq-ur-rehman	Mehran Shah	1340168842667	21	6	1
64.	R-68	Chuchang	Gulab shah	Narang Shah	1340115114183	17	7.11	4
65.	R-69	Chuchang	Hader khan	Juma Khan	1340115025553	80	11.77	21
66.	R-70	Chuchang	Hazib-ur-rehman	Juma Syed	1340174885415	45	11.76	23
67.	R-71	Chuchang	Abdul aziz	Ali Dad	1340115069671	55	2.02	12
68.	R-72	Chuchang	Juma syed	Shair Ghazeb	1340119896335	85	3.72	43
69.	R-73	Chuchang	Fazal azeem	Arbab Shah	1340162607365	35	4.04	25
70.	R-74	Chuchang	Arbab shah	Bader	1340120171747	89	12.79	43
71.	R-75	Chuchang	Fazal qader	Nosher Wan	1340146663827	380	5.35	19
72.	R-76	Chuchang	Hayat shah	Manu	1340187592331	46	2.93	35
73.	R-77	Chuchang	Abdul saleem	Habab Shah	1340190150531	60	2.93	24
74.	R-78	Chuchang	Gul akbar	Jamrooz	1340177708681	650	4.47	26
75.	R-79	Chuchang	Jamrooz	Dama	1340131589241	230	1.65	32

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
76.	R-80	Chuchang	Samiul haque	Jamrooz	1340196092775	310	1.72	17
77.	R-81	Chuchang	Serooz shah	Jamrooz	1340122561489	180	3.63	39
78.	R-82	Chuchang	Jhangeer	Ali Dad	1340191221615	320	4.27	21
79.	R-83	Chuchang	Zenath khan	Machoo Khan	1340139068249	6	2.77	42
80.	R-84	Chuchang	Macho khan	Ali Dad	1340168848181	210	5.63	26
81.	R-85	Chuchang	Sarbuland	Ferooz	1340115086135	53	7.05	17
82.	R-86	Chuchang	Abdul aziz	Akbar Khan	1340134349567	130	5.24	25
83.	R-87	Chuchang	Fazal beri	Akbar Khan	1340182246681	150	14.35	32
84.	R-88	Chuchang	Ajmal khan	Ferooz	1340111079195	140	4.85	28
85.	R-89	Chuchang	Peer wali shah	Shair Ghazeb	1340170424887	60	4.85	37
86.	R-90	Chuchang	Shezada main	Akbar Khan	1340104355383	460	10.36	58
87.	R-91	Chuchang	M. Saeed	Noor Ali	1340115024993	4	3.38	1
88.	R-92	Chuchang	Shamas-ul- huda	Noor Ali	1340115044677	2	3.38	1
89.	R-93	Chuchang	Nazim-u-deen	Shamas-UI- Huda	1340115049129	1	2.29	0
90.	R-94	Chuchang	Habib-u-rehman	Sawal Faqeer	1340145686233	48	3.06	58
91.	R-95	Chuchang	Abdul salam	Muhammad Gee	1340115058705	80	2.86	30
92.	R-96	Chuchang	Azghar khan	Abdul Razzak	1340115043143	77	2.98	59
93.	R-97	Chuchang	Zernosh	Baraq	1340115074909	0	3.41	28
94.	R-98	Chuchang	Hakeem khan	Shan	1340176656905	18	4.44	0
95.	R-99	Chuchang	Saeed ur rehman	Javaid Ali	1340191676427	65	4.11	38
96.	R-100	Chuchang	Zar main	Boraq	1340115004997	115	1.95	37
97.	R-101	Chuchang	Rafih ul haq	Nosher Khan	13401244751	35	5.29	9
98.	R-102	Chuchang	Zahoor ul haq	Nosher Khan	1340153393831	40	4.63	9
99.	R-103	Chuchang	Bin yamin	Bait Ullah	1340115131727	48	11.2	12
100.	R-104	Chuchang	Keymat zer	Ashraf Khan	1340107971343	45	5.47	27
101.	R5	Chuchang	Hikmat khan	Ashraf Khan	1340197238607	35	2.03	70
102.	R6	Chuchang	Sufiyan	Ashraf Khan	1340109271015	105	1.58	34
103.	R7	Chuchang	Ashraf khan	Abdul Kareem	1340115087285	40	3.3	47
104.	R8	Chuchang	Qasam	Ashraf Khan	1340131043003	71	6.17	26
105.	R9	Chuchang	Hikmat khan	Ashraf Khan	1340197238607	90	3.38	49
106.	R10	Chuchang	Muhammad yousaf	Kalshmeer	1350388859079	60	4.632	39
107.	R11	Chuchang	Aurang zaib	Kalshmeer	1320139929229	70	6.63	18
108.	R12	Chuchang	Abdul raheem	Raj Khan	1340102497973	72	4.33	23
109.	R13	Chuchang	Saeed zar	Raj Khan	1340115005829	90	4.852	41
110.	R14	Chuchang	Masoor khan	Sabiyat Khan	1340115056975	75	15.7	15
111.	R15	Chuchang	Javaid ali	Jumma Said	1340115071731	80	10.15	47
112.	R16	Chuchang	Azeez ur rehman	Jumma Said	1340115067723	110	23.24	55
113.	R17	Chuchang	Fazaul rehman	Haji Jumma Said	1340192626427	160	22.36	67
114.	R18	Chuchang	Kareem dad	Raaj Khan	1340115014189	5	2.83	0

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
115.	R19	Chuchang	Muhammad zareen khan	Fameer	1340149062409	25	3.47	41
116.	R20	Chuchang	Gul bahar khan	Malak Lardili Marhoom	1340115005717	120	35.84	68
117.	R21	Chuchang	Kareem dad	Raaj Khan	1340115014189	210	9.43	60
118.	R22	Chuchang	Babar zaman	Raaj Khan	1340114778389	34	4.5	37
119.	R23	Chuchang	Chimiya khan	Zameer	1340123164127	110	0.8	57
120.	R24	Chuchang	Gulzar ahmad	Fameer	1340183444595	110	1.83	45
121.	R25	Chuchang	Abdul rehman	Hameed	1340115077591	45	1.838	58
122.	R26	Chuchang	Abdul sattar	Raaj Khan	1340115004665	30	14.88	27
123.	R27	Chuchang	Haroon	Ashraf Khan	1340115005537	35	6.25	14
124.	R28	Chuchang	Shafeeq ul rehman	Peer Zada	1340106317883	60	2.86	47
125.	R29	Chuchang	Peer zada	Akbar Khan	1340132597065	35	8	39
126.	R30	Chuchang	Badan khan	Ashraf Khan	1340115108339	110	4.73	18
127.	R31	Chuchang	Mazamal shah	Badan Kahn	1340123994507	85	2.713	21
128.	R32	Chuchang	Mustqeem	Ashraf Khan	1340128315785	85	1.875	18
129.	R33	Chuchang	Aseem khan	Pasand Khan	1340136002453	105	2.82	26
130.	R34	Chuchang	Passand khan	Abdul Kareem	1340115024649	40	6.76	18
131.	R35	Chuchang	Shair khan	Mirza Khan	1340135749549	110	2.36	65
132.	R36	Chuchang	Muhammad jaan	Mirza Khan	1340115076381	130	5.42	5
133.	R37	Chuchang	Muneer ahmad behamaki	Mirza Khan	1340156652145	19	19.1	39
134.	R38	Chuchang	Zareen taj	Mirza Khan	1340115015013	36	4.6	50
135.	R39	Chuchang	Nawaz shareef	Muhammad Aameen	1340120138617	92	5.73	38
136.	R40	Chuchang	Wakeel	Mirza Khan	1340117523391	135	1.98	44
137.	R41	Chuchang	Gull fakeer	Jamal Dar	1340115102591	5	4.06	1
138.	R42	Chuchang	Moeen shah	Haji Shair Dad	1340115065409	25	6.529	50
139.	R43	Chuchang	Gul naaz bibi	Farooq Shah	1340136858774	45	1.67	36
140.	R44	Chuchang	Shair dad	Jamal	1340115057895	55	4.5	53
141.	R45	Chuchang	Zar khan	Shair Dadh	1340161507015	120	0.91	31
142.	R46	Chuchang	Madad khan	Shair Dadh	1340115030367	70	8.2	42
143.	R47	Chuchang	Anwar ul haq	Sastool Mehroom	1340115046163	120	3.01	39
144.	R48	Chuchang	Peer zada	Sastool Shah	1340115039059	65	9.26	35
145.	R49	Chuchang	Badar jameel	Sastool	1340167852097	65	6.69	55
146.	R50	Chuchang	Badishah khan	Sher Dad	1340115030391	85	2.78	71
147.	R51	Chuchang	Zia ur rehman	Shazada Ameer	1340147475411	60	2.205	49
148.	R52	Chuchang	Shair zada khan	Mabdool	1340115042513	140	2.86	13
149.	R53	Chuchang	Mumtaz khan	Sastool	1340115069087	200	2.57	43
150.	R54	Chuchang	Ahmad khan	Azool	1340115050171	391	7.77	30
151.	R55	Chuchang	Umer daraz	Razool	1340132547651	368	7.79	65
152.	R56	Chuchang	Shabeer	Razool	1340176181311	22	2.44	33
153.	R57	Chuchang	Gul baz	Razool Khan	1340160887300	26	5.59	93

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
154.	R58	Chuchang	Masheer khan	Razool	1340145659307	516	5.58	54
155.	R59	Chuchang	Abdul qadar	Sayakool	1534011514131	425	14.82	47
156.	R60	Chuchang	Abdul dadood	Sayakool	1540293041537	300	2.91	33
157.	R04	Chuchang	Gahftan	Saeed	1340115084755	58	0.07	15
158.	R03	Chuchang	Chanu khan	Panchu Khan	1340192657297	45	5.52	21
159.	R21	Chuchang	Akhatar	Safeed	1340149488616	5	1.5	7
160.	R01	Chuchang	Sona	Panchar	1340135819539	85	5.33	5
161.	Ro5	Doonder	Zarin	Akbar Khan		4	2.5	6
162.	R06	Doonder	Dedor shah	Roshan		270	1.5	17
163.	R07	Doonder	Jamal	Roshan	1340111552807	130	8	36
164.	R08	Doonder	Nazir	Roshan		130	3.3	37
165.	R02	Doonder	Nabi-ul-haq	Roshan	1340403389185	90	6.88	43
166.	R03	Doonder	Abdul gaffar	Abdul Jabbar	0	150	5.06	53
167.	R04	Doonder	Ibrahim	Abdul Jabbar		200	2.28	34
168.	R01	Gadeer	Fazal shah	Hakidad	1340115106299	103	3.96	58
169.	R02	Gadeer	Namdad	Akidad	1340192016773	200	8.78	27
170.	R03	Gadeer	Mujeeb ur rahman	Haji Naamdad	1340139292813	42	5.74	46
171.	R04	Gadeer	Faiz ur rahman	Namdad	13503-24636521	20	4.63	39
172.	R05	Gadeer	Jamdad	Akidad	13401-92016775	5	6	0
173.	R04	Gul E Bagh/ Maidan	Chanoo khan	Panchoo Khan	13401-9265729-7	21	4.74	42
174.	R05	Gul E Bagh/ Maidan	Razool shah	Machar Khan	13401-7333378-9	30	11.64	30
175.	R06	Gul E Bagh/ Maidan	Soona	Palchar	13401-3581953-9	30	8	57
176.	R07	Gul E Bagh/ Maidan	Pir syed	Sher Mansab	13401-1272377-7	35	7.43	59
177.	R08	Gul E Bagh/ Maidan	Khatib u rehman	Aman	13401-7779906-3	5	1.4	8
178.	R09	Gul E Bagh/ Maidan	Abdul ghani	Pir Syed	13401-5153995-5	40	5.3	31
179.	R10	Gul E Bagh/ Maidan	Mojib ur rehman		13401-0634407-3	1	2.3	36
180.	R11	Gul E Bagh/ Maidan	Zar beyan	Samar Khan	13401-1505915-9	30	57	16
181.	R12	Gul E Bagh/ Maidan	Sepoor khan	Samar Khan	13401-1505969-1	25	12.67	40
182.	R-20	Gul E Bagh/ Maidan	M . Jameel	Malik Younis	13401-15110651	63	1.7	7
183.	R-21	Gul E Bagh/ Maidan	Abdul rehman	Abdul Haseeb	13401-90898191	22	2.02	18
184.	R-22	Gul E Bagh/ Maidan	Qaderna	Zakir Shah	13401-03160096	9	2.52	33
185.	R-23	Gul E Bagh/ Maidan	Zakir shah	Naqeeb	13401-15108273	14	5.48	51
186.	R-24	Gul E Bagh/ Maidan	Abdul wali	Nageer	71202-66172173	18	2.7	21
187.	R-1	Gul E Bagh/ Maidan	Fazal ur raheem	Shareef Khan	13401-1511239-7	40	2.29	15
188.	R-2	Gul E Bagh/ Maidan	M. Iqbal shah	Qamar Khan	13401-1505975-1	45	22.27	34
189.	R-3	Gul E Bagh/ Maidan	Gul bayan	Tamar Khan	13401-6862828-3	25	27.52	55
190.	R25	Gul E Bagh/ Maidan	Abdul wali shah	Yameel	13401-74509709	30	5.8	36
191.	R26	Gul E Bagh/ Maidan	Hazeeb ur rehman	Abaid Ullah	13401-99275639	30	5.8	40
192.	R27	Gul E Bagh/ Maidan	Rafee ul dean	Abaid Ullah	13401-68254081	9	5.8	48

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
193.	R28	Gul E Bagh/ Maidan	Jaffar shah	Naseer Khan	13401-15048287	82	2.65	14
194.	R29	Gul E Bagh/ Maidan	Qadir shah	Yasir Malak	13401-84426441	19	2.64	17
195.	R30	Gul E Bagh/ Maidan	Akhtar ayub	Muhammad Wali	13401-65528895	20	2.31	22
196.	R13	Gul E Bagh/ Maidan	Jamil khan	Peer Syed	13401-21544047	35	1.6	7
197.	R14	Gul E Bagh/ Maidan	Saudam	Sangli	13401-59630395	45	2.03	6
198.	R15	Gul E Bagh/ Maidan	Falak baram	Borra	13401-95121811	31	5.2	36
199.	R16	Gul E Bagh/ Maidan	Abdul jaleel	Bajal	13401-15064859	24	18.21	35
200.	R17	Gul E Bagh/ Maidan	Fazal rahman	Naqeeb	13401-96347889	40	17.8	28
201.	R18	Gul E Bagh/ Maidan	Abdul jaleel	Suleman Shah	13401-50354047	235	3.46	10
202.	R19	Gul E Bagh/ Maidan	Muhammad ameen	Salman Shah	13401-78111849	90	4.1	2
203.	R01	Gummo	Abdur rahman			250	1.5	47
204.	R02	Gummo	Jangul	Nimsalar	1340168060841	510	3.5	43
205.	R3	Gummo	Syed jabbar	Khast Ali	1340157188909	65	7	61
206.	R04	Gummo	Naeem saalar	Fazal Noor	1340186852693	46	4.4	22
207.	R5	Gummo	Sher ali	Sheikh Saadi	1340107420633	245	2.5	37
208.	R06	Gummo	Abdul sattar	Naeem Saalar		190	2.5	21
209.	R07	Gummo	Muhammad zaman	Khast Ali	1340102605247	200	4.04	33
210.	R08	Gummo	Umar farooq	Khasta Ali	1340151970263	125	4.04	73
211.	R09	Gummo	Abdur rahim	Mir Dadi	1340140113025	200	3.3	23
212.	R10	Gummo	Abdul qayyum	Chaloo	1340179039423	5	5.95	0
213.	R11	Gummo	Saeed jabbar	Khast Ali	1340157188909	110	3.88	53
214.	R13	Gummo	Gul bad shah	Noor Saz	1340364294927	17	2.18	15
215.	R12	Gummo	Bakht ali	Gil Noor	1340349090301	20	2.7	38
216.	R14	Gummo	Sar saz	Bakht Ali	1340371980607	15	2.18	28
217.	R15	Gummo	Shahbaz khan	Abdul Aziz	1340371036097	3	3.86	15
218.	R16	Gummo	Muhammad ayyub	Hachi	1340134058929	55	8.2	77
219.	R17	Gummo	Gul muhammad	Hachi	1340169006047	70	9.62	39
220.	R18	Gummo	Abdul majeed	Jamdali	1340176645093	640	7.2	49
221.	R19	Gummo	Mian gul	Haji	1340145298995	4	0	6
222.	R19	Harban Dass	Jannat khan	Ghazi Khan	1340155858445	3	7.08	8
223.	R20	Harban Dass	Shareen mar jaan	Hakam Shah	1340129461541	3	19.11	3
224.	R21	Harban Dass	Ghulam ullah	Hajat Khan	1340131752591	3	12.56	3
225.	R22	Harban Dass	Rahmat ullah	Dirar Shah	1340131783019	10	1.6	2
226.	R23	Harban Dass	Abdul rehman	Jouor		2	3.59	7
227.	R24	Harban Dass	Nouman khan	Abdul Rahman		5	6.48	5
228.	R01	Kai Dogah	Habib ur rahman	Shamno	1340173949573	95	5.62	44
229.	R02	Kai Dogah	Muhammad azaz	Muhammad Aziz	1340150611199	35	7.17	45
230.	R03	Kai Dogah	Jan muhammad	Haji Bhoot	1340188860347	100	3.52	38
231.	R04	Kai Dogah	Muhammad munir khan	Haji Bhoot	1340197271267	75	10.12	27

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
232.	R05	Kai Dogah	Muhammad munir khan	Molvi Fazil	1340161873725	23	3.2	56
233.	R06	Kai Dogah	Muhammad alam	Muhammad Fazil	1340115082819	32	4.08	52
234.	R07	Kai Dogah	Muhammad nawaz	Molvi Fazil	1340196812111	50	1.8	47
235.	R08	Kai Dogah	Lal marjan	Molvi Fazil	1340164802469	23	3.21	52
236.	R01	Kaigah	Abdul qudoos	Khushhal	1340115051915	4	2.51	0
237.	R02	Kaigah	Kamil khan	Azmat Khan	1340115052513	80	5.27	27
238.	R03	Kaigah	Shahzada	Samad Jomta	1340115049511	31	6	32
239.	R04	Kaigah	Qashamlok	Saeed Safaad	1340115086025	705	11.61	18
240.	R05	Kaigah	Gul nawaz	Chulo	1340166419611	65	24.8	35
241.	R06	Kaigah	Kamil khan	Azmat Khan	1340115052513	34	0.53	33
242.	R07	Kaigah	Abdul mateen	Ahmad Sher	1340175660415	49	9.4	24
243.	R08	Kaigah	Abdul qudoor	Qashamlok	1340115052087	15	3.63	13
244.	R09	Kaigah	Badshah	Samad	1340115052519	21	0	18
245.	R10	Kaigah	Haidar khan	Khushhal	1340115051755	24	2.29	20
246.	R11	Kaigah	Sawal palejo	Azmat Khan	1340115075745	60	4.72	26
247.	R12	Kaigah	Muhammad iqbal	Haji Badshah	1340161766385	40	16.68	31
248.	R13	Kaigah	Jamshed	Shamsher	1340198978433	5	2.3	13
249.	R14	Kaigah	Khan bahadur	Shamsher	1340138339549	1	1.78	11
250.	R15	Kaigah	Abdul jalal	Sarmas	1340115035347	81	5.99	23
251.	R16	Kaigah	Ameer zada	Azmat Manan	1340147940555	21	6.84	28
252.	R17	Kaigah	Sahib ul haq	Samad	1340115113927	145	5.06	19
253.	R18	Kaigah	Abdul hakeem	Hakeem Khan	1340151303097	7	3.2	26
254.	R19	Kaigah	Hakeem khan	Abdul Jalal	1340115050061	51	8.22	22
255.	R20	Kaigah	Keema	Muhammad Hussian	1340246250927	3	8.11	4
256.	R21	Kaigah	Malook	Abeel	1340115035161	2	4.06	16
257.	R22	Kaigah	Juma saeed	Dama Khan	1340111729555	1	2.6	2
258.	R23	Kaigah	Muaz	Shah Akbar	1340172303985	14	6.14	2
259.	R24	Kaigah	Khan zada	Mutabar	1340115004091	3	4.1	6
260.	R25	Kaigah	Fazal ur rahman	Shah Akbar	1340122142395	11	6.1	43
261.	R26	Kaigah	Parmaloon khan	Sami Ullah	7120202357667	0	4.95	2
262.	R27	Kaigah	Shah akbar	Barkat Shah	1340164659791	13	2.2	7
263.	R28	Kaigah	Sahab zadah	Mutabar	1340112342989	0	3.35	5
264.	R29	Kaigah	Fazal kareem	Shah Akbar	1340149306181	24	3.28	22
265.	R30	Kaigah	Hikmat khan	Qaisar Khan	1340171169601	40	9.35	53
266.	R31	Kaigah	Fazal wahab	Akbar Shah	1340169335289	20	8.71	29
267.	R32	Kaigah	Akhtar khan	Munazar Khan	1340153610135	23	8.29	31
268.	R33	Kaigah	Aslam kahn	Sahab Khan	1340156602527	35	18.4	14
269.	R34	Kaigah	Jundar shah	Sahab Khan	1340145292583	152	20.41	45
270.	R35	Kaigah	Abdul rauf khan	Jamaldar Khan	1340175714059	0	4.96	0

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271.	R36	Kaigah	Shakeel ahmed	Salamdar	1340186572083	20	8.32	23
272.	R37	Kaigah	Habib khan	Akbar Shah	1340115093597	30	6.06	32
273.	R38	Kaigah	Noor afzal	Munazar Khan	1340165098499	23	3.47	13
274.	R39	Kaigah	Falaqoos	Malik Qalandar	1340115022675	20	18.03	31
275.	R40	Kaigah	Abdur rahman	Falqoos	1340197626475	0	4.4	2
276.	R41	Kaigah	Qismat shah	Shahzada Mian	1340105020885	7	6.65	33
277.	R42	Kaigah	Qalandar shah	Sahab Khan	13401-92876309	15	16.11	12
278.	R43	Kaigah	Javed iqbal	Abdul Satar	13401-01323693	40	10.91	49
279.	R44	Kaigah	Noor saeed	Usman Ghani	13401-19927917	0	10.87	1
280.	R45	Kaigah	Shahzada mian	Qalandar Shah	13401-15115879	15	7.72	22
281.	R46	Kaigah	Fazal rabi	Shahzada Mian	13401-23387103	12	6.27	3
282.	R47	Kaigah	Abdul rahman	Malik Falaqoos	13401-97626475	15	6.64	3
283.	R48	Kaigah	Fazal ur rahman	Naqeeb	13401-96347889	150	77	27
284.	R49	Kaigah	Zahir shah	Abdul Moqeeet	13401-05004629	550	4.99	32
285.		Komila	Abdul-jameel	Khan Meer	13401-1505621-1	4	4.2	2
286.		Komila	Lal mian	Smar Khan	37106-0120332-9	5	4	4
287.		Komila	Sofan khan	Abdur-Razzaq	13401-1509454-1	0.6	4.5	10
288.		Komila	Bakhtur-rehman	Seerqat	13401-6246019-3	2.2	5	41
289.		Zaal	Noor-ul-hadi	Haji Muzammal Khan	13401-1500803-1	16	6	19
290.	R01	Khaliqabad	Noor muhammad	Jannat Nayeem	71203-23138293	12	0.18	15
291.	R02	Khaliqabad	Hassan hussain	Jannat Khan	71203-87027831	22	9.77	20
292.	R03	Khaliqabad	Abdul rahman		71203-60964615	30	11	4
293.	R04	Khaliqabad	Sabar khan	Suboor Khan	71203-23141587	0	6.57	8
294.	R05	Khaliqabad	Abdul mateen	Abul Jaleel	71203-96949507	0	3.81	2
295.	R06	Khaliqabad	Rozliman	Rustam Khan	71203-35824989	0	5.56	1
296.	R07	Khaliqabad	Hejab khan	Azeem Khan	71203-23133601	0	2.29	4
297.	R08	Khaliqabad	Soon khan	Sad Khan	71203-23116497	0	1.31	7
298.	R09	Khaliqabad	Alyas khan	Rustam Khan	71203-73246865	0	5.6	4
299.	R10	Khaliqabad	Rustam khan	Muhammad Ali	71203-32102955	0	5.23	11
300.	R11	Khaliqabad	Nazir	Share Khan	13401-37281575	0	4.11	6
301.	R12	Khaliqabad	Shah alam	Khaslat Khan	13401-99112915	0	3.75	6
302.	R13	Khaliqabad	Jahgeer khan	Zarwallah	13401-20355303	0	5.88	6
303.	R1	Khoshi	Heer wali shah	Mir Ghazab	13401-70424887	35	18.8	62
304.	R2	Khoshi	Gul zarin	Muhib Ullah	1340115059893	40	20.8	27
305.	R-3	Khoshi	Manzar	Muhib Ullah	1340194891925	40	8	54
306.	R04	Khoshi	Akhtar khan	Samandar Khan	1340102215909	8	0	53
307.	R01	Kot Gal	Noor ullah	Abdul Hakeem Khan	1340164423701	40	22.7	39
308.	R02	Kot Gal	Abdur rasheed	Gulab	1340112369361	40	3.82	23
309.	R03	Kot Gal	Mir hazar khan	Jaffer Khan	1340115125535	255	10.85	43

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310.	R04	Kot Gal	Umer khan	Saffa Khan	1340169700405	110	6.83	19
311.	R05	Kot Gal	Mir subhan	Haji Saffi	1340190184059	45	5.52	35
312.	R06	Kot Gal	Alif din	Jamdar	1340115126793	0	18.76	7
313.	R07	Kot Gal	Taj muhammad	Haji Sakhi	1340115055339	29	10.98	33
314.	R08	Kot Gal	Gulldad	Shah Jee	1340115055367	20	4.36	4
315.	R09	Kot Gal	Muhammad ashraf	Umar Khan	1340117394319	90	1	26
316.	R10	Kot Gal	Tariq mahmood	Gulab Khan	1340175597463	18	5.4	3
317.	R11	Kot Gal	Maskeen khan	Jamdar	1340176087451	0	5.03	3
318.	R12	Kot Gal	Peer dad	Haji Jaffer Khan	1340116007383	195	7.78	41
319.	R13	Kot Gal	Khan muhammad	Fakhar Din	1340147687285	0	14.47	4
320.	R14	Kot Gal	Meerdad uraf raja	Jaffer Khan	1340115126955	215	9.52	33
321.	R15	Kot Gal	Ahmad khan	Jaffer Khan	1340115125777	85	5.73	26
322.	R16	Kot Gal	Raheem dad	Noor Yar Khan	1340183482789	30	2.16	19
323.	R17	Kot Gal	Ameer jan	Gulldad	1340171071043	34	5.5	24
324.	R18	Kot Gal	Wazoob khan	Saffi	1340115126082	115	6.12	16
325.	R19	Kot Gal	Namra din	Samandar	1340180119711	0	4.11	4
326.	R20	Kot Gal	Abdul aziz	Muhammad Saffi	1340156195213	27	4.31	31
327.	R21	Kot Gal	Mir subhan	Haji Saffi	1340190184059	8	3.08	4
328.	R22	Kot Gal	Sher ali	Gulldad	1340161795727	0	4	43
329.	R23	Kot Gal	Walayat noor			230	65.5	56
330.	R24	Kot Gal	Meekbar khan	Noor Khan	1340141736117	110	86.02	58
331.	R25	Kot Gal	Ameer hamza	Mushtaq	1340104949413	5	6.12	13
332.	R26	Kot Gal	Mushtaq	Raheem	1340115085275	1	5.03	8
333.	R27	Kot Gal	Gulab	Raheem	1340174311219	26	13.2	52
334.	R28	Kot Gal	Khalid mahmood	Gulab	1340169855515	20	3.4	42
335.	R29	Kot Gal	Ameer khan	Gulab	1340160128663	58	3.44	47
336.	R30	Kot Gal	Gull zaban	Gulab	1340128701173	40	2.3	15
337.	R31	Kot Gal	Zar khan	Jawab	1340115099539	44	5.35	9
338.	R32	Kot Gal	Muhammad khan			75	52.9	4
339.	R01	Kuz Kai	Fazal ur rahman	Shamno	1340146068559	185	17.44	28
340.	R02	Kuz Kai	Fazal rabi	Shamno	1340167375223	185	6.97	38
341.	R03	Kuz Kai	Habib ur rahman	Shamno	1340173949573	185	4.57	45
342.	R04	Kuz Kai	Abdur rahman	Shamno		185	9.29	60
343.	R05	Kuz Kai	Mahmood khan	Abdur Raheem	1340129959085	70	0	17
344.	R05	Kuz Kai	Dasham khan	Samandar Khan	1340195952563	72	4.21	5
345.	R06	Kuz Kai	Orangaib khan	Meera Khan	1340160544963	48	14	47
346.	R07	Kuz Kai	Kashoor khan	Meera Khan	1340154211459	45	14.7	56
347.	R08	Kuz Kai	Nosherwan	Meera Khan	1340134399531	51	14.01	28
348.	R09	Kuz Kai	Meera khan	Bolia	1340174208585	110	10.8	42

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349.	R10	Kuz Kai	Ameer nawab	Gull Dad	1340141049839	80	6.41	15
350.	R11	Kuz Kai	Shamasul haq	Guldat	1340163230999	50	5.65	36
351.	R12	Kuz Kai	Gulldad	Haji Hakeem Khan	1340123451571	70	9.74	22
352.	R13	Kuz Kai	Akhtar munir	Hakeem Khan Malik	1340176105173	95	4	38
353.	R01	Lachi Nullah	Muhammad baraash	Jamil Malik	1340131081931	35	4.5	45
354.	R02	Lachi Nullah	Ijaz ahmad	Muhammad Baraash	1340120596185	25	12.45	43
355.	R03	Lachi Nullah	Lal muhammad	Zaboor	1340176688235	25	9.12	49
356.	R04	Lachi Nullah	Malik zaboor khan	Malik Jamil Khan	1340196130685	60	8	32
357.	R05	Lachi Nullah	Raja muhammad arif	Haji Safdar Khan	1340103881507	15	1.11	17
358.	R06	Lachi Nullah	Shah nawaz	Raja Muhammad Arif	1340163869271	60	4.54	35
359.	R07	Lachi Nullah	Muhammad yahya	Muhammad Noshewan	1340165479111	19	24.29	7
360.	R-01	Largani	Kemyad	Doshum Khan	1340137839547	1	1.64	33
361.	R-02	Largani	Raat main	Ali Hader	1340115110951	7	5.65	43
362.	R-03	Largani	Abdul malak	Ali Hader	1340126161329	60	25	47
363.	R-04	Largani	Ghulam hader	Brother	1340115112451	45	25	16
364.	R-05	Largani	Syed main	Nmbolla	1340109945149	31	25	16
365.	R-06	Largani	Fazal-ur-rehman		1340131831193	16	2.7	9
366.	R-07	Largani	Abdul qadir	Ali Hader	1340115111269	45	4.29	39
367.	R-08	Largani	Abdul jaleel	Ali Hader	1340194776945	7	5.44	12
368.	R-09	Largani	Ali hader			21	25	43
369.	R01	Looter	Hujat nabi	Losh	1340127319639	0	4.29	18
370.	R03	Looter	Mast khan	Gul Nawaz Shah	1350103267919	10	7.87	41
371.	R02	Looter	Shazada	Muhammad Sagir	1340112516915	4	7.64	24
372.	Ro4	Looter	Umer khan	Abdul Qadeem	1340169755763	55	6.37	60
373.	R05	Looter	Lallbadshah	Mahrab	1340106602717	6	5.76	20
374.	R06	Looter	Muhammad ghni	Muhammad Ali		10	7.82	11
375.	R07	Looter	Muhammad pivan shah	Yaqoot	1340193879009	0	3.32	7
376.	R08	Looter	Abdul razzak	Lalzar	1340139274903	35	12.29	99
377.	R09	Looter	Abdul baqi	Lalzar	1340157006955	30	3.53	49
378.	R10	Looter	Abdul rauf khan	Ali Muhammad	1340182418949	100	9.1	27
379.	R11	Looter	Ali muhammad	Abdul Sakriya	1340192359091	75	3.56	63
380.	R01	Melar	Bashir ahmad	Qalash Khan	1340115090401	40	6.3	57
381.	R02	Melar	Badshah khan	Haji Akbar	1340116452771	32	5.5	25
382.	R03	Melar	Tariq aziz	Haji Akbar	1340170810881	32	9.8	29
383.	R04	Melar	Anayat ullah	Hikamt Wakeel	1340191441089	45	3.79	17
384.	R05	Melar	Hikmat wakeel	Shamsher	1340115040761	45	4.36	34
385.	R06	Melar	Munir khan	Qalash Khan	1340115084141	45	5.21	18
386.	R07	Melar	Shams-ur-rahman	Qala Shamsher	1340172992323	45	2.52	28
387.	R08	Melar	Gul namir	Qalash Mir	1340154905195	45	3.4	90

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388.	R09	Melar	Muhammad wakeel	Qalash Mir	1340178886867	46	20	47
389.	R10	Melar	Muhammad amin khan		1340115033157	17	3.76	32
390.	R11	Melar	Zia-ur-rahman	Haji Bhoot	1340140933421	80	5.96	35
391.	R12	Melar	Mir alam khan	Tolla	1340103740191	58	2	39
392.	R13	Melar	Muhammad ayaz	Haji Bhoot	1340117966549	52	3	42
393.	R14	Melar	Ameez khan	Darwesh	1340148573029	70	3.79	35
394.	R15	Melar	Muhammad nabi	Darwesh	1340159421375	63	4.13	53
395.	R16	Melar	Muhammad nabi	Musharaf Khan	1340115095253	33	4.63	72
396.	R17	Melar	Musharaf khan	Keesho	1340122351335	56	23.16	42
397.	R18	Melar	Muhammad nazir	Musharaf Khan	1340130758765	36	13.05	96
398.	R19	Melar	Gulab khan	Bhoot	1340140838421	50	1.5	85
399.	R22	Melar	Muhammad javed	Tolla	1340115032551	41	3.87	30
400.	R23	Melar	Muhammad harif khan	Bhoot	1340119218123	43	3.09	93
401.	R24	Melar	Darwesh	Tolla	1340115033703	70	4.11	56
402.	R25	Melar	Hadees	Tolla	1340115032555	38	4.97	91
403.	R26	Melar	Gulab khan	Yousaf Khan	1340121572351	230	16.15	62
404.	R27	Melar	Basdar munir	Gulab Khan	1340105725121	47	5.84	49
405.	R28	Melar	Muhammad noor	Gulab Khan	1340149894315	60	13.74	52
406.	R29	Melar	Taj muhammad	Ali Dad	1340114999957	16	15.09	3
407.	R30	Melar	Shahzada	Ali Dad	1340115032047	15	14.33	5
408.	R31	Melar	Syed zayab	Ali Dad	1340187452833	15	14.33	14
409.	R32	Melar	Muhammad ambar	Ali Dad	1340125911663	15	1.75	15
410.	R33	Melar	Ashraf khan	Keesho	1340160004195	25	6.22	38
411.	R34	Melar	Umar khan	Abdullah Khan	1340129137367	265	9.49	37
412.	R35	Melar	Saif-ur-rahman	Jamo Malik	13410114999911	55	9.49	16
413.	R36	Melar	Qaisar khan	Abdur Raheem	1340115013679	32	16.3	72
414.	R37	Melar	Ameer khan	Abdur Raheem	1340115013681	85	9.92	55
415.	R38	Melar	Jamaras khan	Abdur Raheem	1340115014235	57	18	93
416.	R39	Melar	Umar khan	Abdur Raheem	1340137618563	96	14.34	65
417.	R40	Melar	Atta ullah	Hadees	1340151251013	45	13	53
418.	R41	Melar	Fazal e haq	Hadees	1340134131569	320	12	43
419.	R42	Melar	Muhammad munir	Shareen	1340115081409	50	1.13	42
420.	R43	Melar	Hukamdad	Hazir	1340197475951	35	4.58	7
421.	R44	Melar	Anayat ur rahman	Adrees	1340137290659	10	2.57	15
422.	R02	Not Bail	Khan bahadur	Tahseldar	1340161158583	20	7.46	22
423.	R03	Not Bail	Muhammad taj deen	Tahseldar	1340115028055	20	4	39
424.	R05	Not Bail	Gulam ullah	Khan Bahadur	1340197745923	18	6.15	29
425.	R06	Not Bail	Hakim dar	Abdul Star	1340168909123	250	4.43	31
426.	R07	Not Bail	Ahsan -ul-haq	Lall Khan	1340196526639	175	0	24

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
427.	R4	Not Bail	Ainayat ullah	Naji Khan	1340113729847	220	1.27	34
428.	R-01	Pani Bah	M. Noor	Malik Brother Khan	134011509023	501	6.62	37
429.	R-02	Pani Bah	Walyat sahab	Wafat Khan	1340115076509	201	1.05	15
430.	R-03	Pani Bah	Alyas khan	Meer Subhan	1340115039749	72	2.91	26
431.	R-12	Pani Bah	Jumma syed	Mirza Khan	13401-1510297-9	150	2.42	31
432.	R-13	Pani Bah	Deedar shah	Roshan Khan	13401-7527064-7	25	4.65	22
433.	R-14	Pani Bah	Abdul jabbar	Yousaf	13401-1502069-7	60	4.02	21
434.	R-15	Pani Bah	Saifvi khan	Farza Khan	13401-1508899-1	38	1.13	18
435.	R-16	Pani Bah	Abdul manan	Saifvir	13401-2435466-5	35	2.44	19
436.	R-17	Pani Bah	Hajan khan	Roshan Khan	13401-1512825-7	25	6.5	34
437.	R-18	Pani Bah	Keemia	Jumma Syed	13401-1508474-5	26	4.81	28
438.	4	Pani Bah	Tajamul	Karnal Shah	1340115069201	350	13.38	57
439.	5	Pani Bah	Ali haider	Barkati	1340115107339	1	3.82	6
440.	R06	Pani Bah	Noor badshah	Walayat Sahab	1340157917241	130	5.28	29
441.	R07	Pani Bah	Jamaras khan	Muhammad Ilyas	1340155114813	61	1.5	28
442.	R08	Pani Bah	Gul nawaz	Ilyas Khan	1340106926239	26	3.01	31
443.	R09	Pani Bah	Noor nabi	Malik Brader Khan	1340105976237	26	7.64	46
444.	R10	Pani Bah	Mir subhan	Shah Jahan	1340181732931	111	5.7	38
445.	R11	Pani Bah	Gulzar khan	Mir Subhan	1340115039707	36	3.08	41
446.	R01	Sazin Camp.	Shah alam	Muhammad Haleem	1340143591003	100	12.25	62
447.	R02	Sazin Camp.	Sher afzal	Muhammad Haleem	1340169316765	25	14	64
448.	R03	Sazin Camp.	Khan afzal	Muhammad Haleem	1340153103725	75	8.4	37
449.	R04	Sazin Camp.	Muhammad maskeen	Muhammad Haleem	1340166453755	30	18.66	36
450.	R05	Sazin Camp.	Muhammad mustaqeem	Muhammad Haleem	1340165937151	25	12.36	38
451.	R06	Sazin Camp.	Mukhtiyar wali	Muhammad Mustaqeem		0	0	5
452.	R-01	Seer Gayal	Ashraf ali	Sarbaz	13401-3204189-5	48	3.93	14
453.	R-02	Seer Gayal	Aslam khan	Sarbaz Malik	13401-1509081-9	47	7.14	45
454.	R-03	Seer Gayal	Ashraf ali	Sarbaz	13401-3204189-5	50	4.1	29
455.	R-04	Seer Gayal	Gul badshah	Sarbaz	13401-5122055-3	45	6.1	38
456.	R-05	Seer Gayal	Abdul haddi	Sarbaz	13401-2316893-5	27	3.26	39
457.	R-06	Seer Gayal	Javad iqbal	Noor Muhammad	13401-8717060-5	45	7.58	32
458.	R-07	Seer Gayal	Ismayeel	Taj Muhammad	13401-3840419-9	12	5.51	25
459.	R-08	Seer Gayal	M.zahir shah	Taj Muhammad	42201-0427534-9	70	3.216	48
460.	R-09	Seer Gayal	Shaheen shah	Taj Muhammad	13401-2296136-5	110	3.82	20
461.	R-10	Seer Gayal	M.reheem	Syed Alam	13401-1506243-5	47	5.97	49
462.	R-11	Seer Gayal	M. Muneer	M. Wali	13401-0822089-7	60	2.75	37
463.	R-12	Seer Gayal	M. Wali	Sahab Ullah	13401-5525136-1	60	10.65	45
464.	R-13	Seer Gayal	Abdul ahad	Mulana Ghulam Essa Khan	13401-3671996-1	60	8.22	20
465.	R-14	Seer Gayal	Hussain ahmed	Mulana Ghulam Essa Khan	1340126159823	76	17.84	14

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
466.	R-15	Seer Gayal	Abdul malak	Ghulam Essa	1340184761143	80	3.86	10
467.	R-16	Seer Gayal	Abdul qayyum	Abdul Haq	1340115081647	55	10.26	54
468.	R-17	Seer Gayal	Taj-ur-rehman	Abdul Qayyum	1340178020487	61	1.59	52
469.	R-18	Seer Gayal	M. Naseer	M. Idrees	1340115047627	35	5.31	42
470.	R-19	Seer Gayal	Fardos hussain	M. Idrees	1340115031510	45	1.92	52
471.	R-20	Seer Gayal	M. Idrees	Abdul Haq	1340115031557	110	3.76	39
472.	R21	Seer Gayal	Taj ud din	M Idrees	1340115031479	65	8.5	37
473.	R22	Seer Gayal	Gul aman	Abdul Mateen	1340131881435	39	4	69
474.	R23	Seer Gayal	Dost muhammad	Abdul Mateen	1340151674167	105	10.97	55
475.	R25	Seer Gayal	Mehar alam	Brother	1340115104041	71	4.33	29
476.	R26	Seer Gayal	Saeed ahmed	Sayad Faqeer	1340108402931	80	6.9	36
477.	R27	Seer Gayal	Anayat ullah	Muhammad Zameer	1340142687115	37	2.02	29
478.	R28	Seer Gayal	Anayat ullah	Numair Khan	1340115081725	40	5.2	19
479.	R29	Seer Gayal	Numir khan	Muhammad Bilal	1340115081657	110	6.22	38
480.	R30	Seer Gayal	Muhammad carme	Saeed Umer	1340115085717	41	1.9	29
481.	R31	Seer Gayal	Khan wazir	Hazrat Ali	1340176968651	19	2.34	38
482.	R32	Seer Gayal	Shah wali ullah	Numair Khan	1340153197817	29	1.81	34
483.	R33	Seer Gayal	Noor kabool	Qasir	1340113129127	90	3.9	44
484.	R34	Seer Gayal	Muheen khan	Muhammad Zamir	1340150985067	105	6.24	30
485.	R35	Seer Gayal	Muhammad mehran	Sayadd Alam	1340115062529	53	1.6	48
486.	R36	Seer Gayal	Gul muhammad khan	Saeed Ullah	1340199947511	33	4.2	18
487.	R37	Seer Gayal	Sayad rahman	Hazrat Ali	1340115096601	55	3.4	32
488.	R38	Seer Gayal	Durmeshan	Hazrat Ali	1340194376593	55	2.8	26
489.	R39	Seer Gayal	Gul nawaz	Sayad Rajan	1340188360007	100	3.5	33
490.	R40	Seer Gayal	Altaf hussain		1340143286639	30	2.9	50
491.	R41	Seer Gayal	Gul mehar khan	Brother Khan	1340115049531	108	5.76	54
492.	R42	Seer Gayal	Ameer khan	Gul Meer Khan	1340107536869	70	3.13	42
493.	R43	Seer Gayal	Muhammad azam	Haji Brother	1340177123383	180	4.5	43
494.	R44	Seer Gayal	Sayad alam	Muhammad Farash	1340115101017	45	4.7	25
495.	R45	Seer Gayal	Abdul aziz	Muhammad Jafar	1340115046117	125	2.13	35
496.	R46	Seer Gayal	Muhammad din	Abdul Aziz	1340115039907	45	1.73	47
497.	R47	Seer Gayal	Abdul qadoos	Abdul Aziz	1340115092989	52	4.7	37
498.	R48	Seer Gayal	Muhammad ayooob	Juma Sayyed	1340185796525	80	1.33	53
499.	R49	Seer Gayal	Khasat ur rehman	Muhammad Akbar	1340184825489	145	2.05	29
500.	R50	Seer Gayal	Hadayat ullah	Muzamil	1340148703129	90	6.8	38
501.	R51	Seer Gayal	Fazal ahmed	Muzamil	1340115044395	188	5.25	23
502.	R52	Seer Gayal	Sayad rashed	Sayad Faqeer	1340132416489	75	4	25
503.	R53	Seer Gayal	Sayad zar	Sayad Rashed	1340147487383	92	4.6	27
504.	R54	Seer Gayal	Abdul ghafoor	Mukder	1340126370057	115	18.75	18

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505.	R55	Seer Gayal	Abdul sttar	Abdul Wadood	1340108759881	127	2.8	28
506.	R56	Seer Gayal	Abdul wadood	Abdul Ghafoor	1340168485021	220	5.5	42
507.	R05	Seer Gayal	Merr aslam	Brother	1340150885985	39	3.5	29
508.	R56	Seo	Mauchoor	Dorkhan	1340115131383	20	4.91	11
509.	R57	Seo	Kasool khan	Shareef	13401-9076461-5	30	28	23
510.	R86	Seo	Izhar ul haq	Afsar Khan	13401-7222798-5	10	4.96	22
511.	R90	Seo	Noor mohammad	Syed Umar	13401-6413998-9	45	10.99	46
512.	R91	Seo	Molvi mehboob shah	Khan Poor	13401-1502328-5	43	15.8	32
513.	R94	Seo	Abdul kabeer	Choo	13401-5866065-5	20	2.32	28
514.	R95	Seo	Fazal raheem	Syed Mola	13401-1546097-3	35	2.82	35
515.	R96	Seo	M shah	Malik Umar Khan		60	3.62	23
516.	R97	Seo	Mohkam shah	Gandal Khan	13401-1501573-9	50	3.86	4
517.	R98	Seo	Malik umar khan	Gandal Khan	13401-6291424.9	60	2.54	3
518.	R107	Seo	Abdul waheed	Abdul Gafoor	13401-1562143-5	50	3.86	21
519.	R108	Seo	M bashir	Chikh	13401-6197287-7	80	3.6	31
520.	R109	Seo	M mustafa	Abdul Khan	13401-1505054-7	40	2.94	14
521.	R-08	Shatial	Khma khan	Meer Ahmed	1340115047567	37	5.65	29
522.	R-09	Shatial	Jal zer	Khma Khan	1340131120119	7	4.12	5
523.	R-10	Shatial	Gul ber khan	Abdul Wakeel	1340111433471	0	1.23	3
524.	R01	Shatial	Fareed khan	Laiakat Wali Khan	1340107035757	0	6.11	2
525.	R02	Shatial	Laiakat wali khan		1340115074213	17	21	24
526.	R03	Shatial	Sahab zar		1340198602197	37	2.99	9
527.	R04	Shatial	Muhammad zaman		1340115014049	17	6.85	21
528.	R05	Shatial	Sabeer ahmed	Jewan Khan	1340198084009	0	4.47	6
529.	R06	Shatial	Burhi bi bi	Dil Muhammad	1340107663506	12	1.23	24
530.	R07	Shatial	Dil khan	Nemat Khan	1340115014083	32	9.94	31
531.	R14	Shatial	Muhammad jameel	Hamayoon Khan	1340163233689	0	2.58	4
532.	R11	Shatial	Ubaid ullah	Namdad	1340108795975	1	4.11	21
533.	R12	Shatial	Shabir ahmad	Dil Muhammad	1340115074935	13	2	9
534.	R13	Shatial	Barkat khan	Muhammad Jamil	1340192952199	0	1.52	5
535.	R15	Shatial	Sahib zadah	Sartoor	1340105543381	0	2.94	7
536.	R16	Shatial	Abdul kareem	Abdur Rahman	1340175051179	15	9.55	3
537.	R17	Shatial	Rahmat	Milat	1340115128869	1	11.27	23
538.	R18	Shatial	Hazrat wali	Malook	1340143803405	3	11.44	1
539.	R01	Shori Nullah	Sabeet	Brader	1340199505395	2	2.91	17
540.	R02	Shori Nullah	Muhammad hassan	Muhammad Jee	1340137092651	0	2.2	7
541.	R03	Shori Nullah	Muzamil shah	Muhammad Ayyub	1340163318247	3	2.4	12
542.	R04	Shori Nullah	Fareed khan	Muhammad Ayyub	1340148518073	0	1.2	15
543.	R05	Shori Nullah	Abdul wajid	Sher Ghazi	1340148496005	20	6.33	35

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544.	R06	Shori Nullah	Mubashir	Sher Ghazi		10	4.35	6
545.	R07	Shori Nullah	Hussain wali	Muhammad Ayyub	1340136475649	18	2.85	21
546.	R08	Shori Nullah	Shukar khan	Hakeem Khan	1340125314541	2	2.18	25
547.	R09	Shori Nullah	Rajgull	Fazil	1340125828183	1	1.2	23
548.	R10	Shori Nullah	Gull saeed	Hukam	1340145149777	30	1.2	35
549.	R59	Siglo	Abdia	Lachor	13401-1507060-3	100	2.38	47
550.	R60	Siglo	Qadam khan	Abdia	13401-1506431-3	30	2.53	39
551.	R61	Siglo	Gujoor khan	Saber Khan	13401-2221207-3	95	16.11	27
552.	R62	Siglo	Mumtaz	Saber Shah	13401-3296439-7	0	14.34	37
553.	R63	Siglo	Mumtaz	Mumtaz	13401-3668874-7	30	8.27	7
554.	R64	Siglo	M.mumtaz	Karamdad	13401-7224831-3	40	27.64	36
555.	R65	Siglo	Abdullah	Karimdad	13401-1512106-7	35	24.83	33
556.	R58	Siglo	Sher khan	Abdia	13401-1507060-3	30	6.06	23
557.	R66	Siglo	M.yousaf	Shahdad	13401-6978487-3	40	15.25	35
558.	R67	Siglo	M.nabi	Shahda Malik	13401-7841430-1	30	22.2	24
559.	R68	Siglo	Shah jahan	Shahda Malik	13401-2415291-3	230	22.2	18
560.	R69	Siglo	Sir mukhtiar	Shahda Malik	0	330	18	29
561.	R70	Siglo	Fazal rehman	Shahda Malik	13401-1511182-9	235	15.7	38
562.	R71	Siglo	Sikandar	Shahda Malik	13401-7167858-1	335	17.2	28
563.	R72	Siglo	Hasib ur rehman	Shahda Malik	13401-4218037-5	310	17.7	24
564.	R73	Siglo	Abdul qadoos	M.Yousaf	13401-1511738-1	85	6.61	22
565.	R74	Siglo	Syed azeem	Sir Mukhtiar	13401-9532956-3	25	10.8	15
566.	R75	Siglo	M.nabi	Sir Mukhtiar	0	135	10.8	9
567.	R76	Siglo	Fazal rehman	Sir Mukhtiar	13401-9956700-7	130	7.72	11
568.	R77	Siglo	Shamul rehman	Sir Mukhtiar	13401-1503539-1	115	2.47	13
569.	R78	Siglo	M.noor	0	13401-2401874-3	30	14.42	21
570.	R79	Siglo	Ghulam haadi	0	13401-5029056-3	22	9.92	29
571.	R80	Siglo	Mahina bibi	Shah Alam	13401-2721211-8	20	2.89	59
572.	R81	Siglo	Muzamal khan	Mast Khan	13401-9638459-9	30	3.09	30
573.	R82	Siglo	M.haleem	Mijoo	13401-7279480-3	16	9.48	31
574.	R83	Siglo	Ehsan ullah	Abdul Haleem	13401-6737233-1	21	6.63	39
575.	R84	Siglo	Abdul bari	Rasool Shah	13401-7430509-7	25	4.41	16
576.	R85	Siglo	Dushan khan	Afsar Khan	13401-0502057-9	20	7.19	20
577.	R87	Siglo	Amer zada	Afsar Khan	13401-3052078-5	15	3.36	26
578.	R88	Siglo	Gull zada	Afsar Khan	13401-1510118-5	18	2.1	35
579.	R89	Siglo	Hussan wali	Syed Umar	13401-9081004-1	13	3.566	36
580.	R92	Siglo	Liaqat ali	Galiya	13401-2894003-7	120	10.75	31
581.	R93	Siglo	Sarfazr khan	Pirdad	13401-1509702-1	140	2.77	24
582.	R100	Siglo	Jildad	Karimdad	13401-1510547-3	0	4.22	7

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583.	R101	Siglo	Karim dad	Mugrab	13401-1510539-5	0	3.69	3
584.	R102	Siglo	M nabi	Jamdad	13401-5869928-9	60	12.56	38
585.	R103	Siglo	Ahmad ali shah	Yaqeen Shah	13401-8886788-1	10	8.8	14
586.	R104	Siglo	Abdul mateen	Ahmad Ali Shah	13401-0677626-5	12	5.26	10
587.	R105	Siglo	Pir zada	Rosham Khan	13401-2135986-9	50	5.07	22
588.	R106	Siglo	Kachkol	Wadan	13401-8139091-5	30	5.07	21
589.	R110	Siglo	Hazrat wali khan	Abdul Hai	13401-1501177-1	0	0	2
590.	R16	Siglo	Sher mohammad	Pir Dad Khan	1340107353089	25	29.19	16
591.	R18	Siglo	Fazal -ur-rehman	Abdul Yahiya	1340163880775	15	4.07	29
592.	R19	Siglo	Muhammad aliyas	Molvi Badhar Shah	1340169562741	15	5.3	32
593.	R20	Siglo	Molvi bhadar shah	Molvi Jamdar Khan	1340115090291	20	3.25	31
594.	R21	Siglo	Fida muhammad	Wali Dad	1340156499279	10	8.24	9
595.	R22	Siglo	Muhammad mujhaid	Haji Wali Dad		210	2.26	26
596.	R23	Siglo	Hidayat ullah	Wali Dad		20	2.26	35
597.	R24	Siglo	Mohina bibi	Mohammad Saeed	1340133248630	12	2.4	10
598.	R25	Siglo	Ushah khan	Aafreen	1340160825415	31	2.75	7
599.	R26	Siglo	Muhammad eesa	Aafreen	1340116411923	29	3.375	22
600.	R27	Siglo	Muhammad mousa	Afreen Khan	1340194667125	18	4.652	3
601.	R28	Siglo	Sahab khan	Akvan Khan	1340115001231	30	4.7	32
602.	R29	Siglo	Hijab khan	Malak Akram	1340115092995	15	3.573	28
603.	R30	Siglo	Aftab	Hijab Khan	1340181269851	15	4.69	36
604.	R31	Siglo	Gul naweer	Mungalib	1340115027617	9	2.16	18
605.	R32	Siglo	Abdul kareem	Hashim Khan	1340115061609	55	3.08	19
606.	R33	Siglo	Muhammad yousaf	Hashim Khan	1340193904831	55	2.77	34
607.	R34	Siglo	Molvi fazur rehman	Nazim Khan	1340114999997	30	3.38	22
608.	R35	Siglo	Zia ur rehman	Azeem	1340168469683	40	3.06	22
609.	R36	Siglo	Muhammad azeez khan	Haji Matbar Shah	1340109571379	25	34.74	35
610.	R37	Siglo	Afreen khan	Fazil	1340156167003	30	5.65	21
611.	R38	Siglo	Muhammad akbar	Molvi Abdul Fazique	1340186159627	70	2.92	30
612.	R39	Siglo	Wali muhammad khan	Abdul Razaq	1340150105133	25	3.2	29
613.	R40	Siglo	Abdul shakoor	Yaqeen Shah	1340198558335	30	3.18	41
614.	R41	Siglo	Abdul kareem	Yaqeen Shah	1340130002361	35	3.83	36
615.	R42	Siglo	Abdul raheem	Yaqeen Shah	1340153836861	25	2.32	33
616.	R43	Siglo	Abdul shar	Boliya	1340134853627	85	6.036	26
617.	R44	Siglo	Jaan muhammad	Abdul Satar	1340187572451	46	3.84	22
618.	R45	Siglo	Muhammad imtiaz	Abdul Qadir	1340107098697	10	5.375	21
619.	R46	Siglo	Sher muhammad	Shahzad Khan	1340185009745	30	6.91	13
620.	R47	Siglo	Shahzad khan	Haji Raheem Ullah	1340162293465	25	4.52	17
621.	R48	Siglo	Faiz muhammad	Shahzad Khan	1340191849141	27	4.3	22

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
622.	R49	Siglo	Alam zaif	Rasool Shah	1340150917011	70	4.85	29
623.	R50	Siglo	Rasool shah	Rajib Ullah	1340179343581	30	3.35	24
624.	R3	Siglo	Sardar	Zaisan	1340133600381	55	3.97	0
625.	R2	Siglo	Mosaz khan	Zaisan	1340126748793	320	11.21	22
626.	R1	Siglo	Sobidar	Dabiyar	1340129394683	20	4.19	11
627.	R4	Siglo	Abdar khan	Zaisan	1340154753463	20	5.17	16
628.	R5	Siglo	Pir muhammad	Shahzad Mir	1340115001157	20	3.5	18
629.	R6	Siglo	Siqab	Sabir Khan	1340115001181	315	3	19
630.	R7	Siglo	Muhammad sadiq	Abdul Razaq	1340115061819	10	5.33	10
631.	R8	Siglo	Doraj	Jaan Khan	1340192381235	71	18.3	26
632.	R9	Siglo	Saren zaib	Jaan Khan		146	8	28
633.	R10	Siglo	Ral zar	Rast Ullah	1340115020395	34	6.7	7
634.	R11	Siglo	Gul muhammad	Abdul Qadar	1340158967943	15	6.1	28
635.	R12	Siglo	Mir aftar	Abdul Qadir	1340144293991	35	4.44	24
636.	R13	Siglo	Taj muhammad khan	Barwad Khan	1340115096667	25	11.3	42
637.	R14	Siglo	Shahid ali	Galiya	1340179285955	35	5.2	21
638.	R15	Siglo	Mer baz khan	Barwad Khan	1340115120763	12	13	25
639.	R51	Siglo	Umer zaid	Miraj Khan	1340115106271	40	4.07	11
640.	R52	Siglo	Sartaj	Khato	1340115088113	65	7.72	30
641.	R54	Siglo	Noor muhammad	Miraj Khan	1340113087535	35	9.92	21
642.	R55	Siglo	Fazal kabeer	Raz Khan	1340195596147	0	3.83	2
643.	R53	Siglo	Javadar shah	Sartaj	1340115063443	65	4.11	9
644.	R-01	Sluch	Qadreya	Khadi	1340104684843	0	8.63	11
645.	R-02	Sluch	Abdul azeem	Freedoon	1340171172411	1	2.24	5
646.	R-03	Sluch	Zwal khan	Bota	1340195323327	0	2.1	2
647.	R-04	Sluch	Samad	Damoo	1340154586037	0	2.9	9
648.	R-05	Sluch	Syed gul	Damoo	1340168529563	14	5.08	5
649.	R-06	Sluch	Damoo	Naseer Khan	1340163249733	0	8.5	9
650.	R-07	Sluch	Syed jan	Damoo	1340179134077	39	5.8	16
651.	R-08	Sluch	Jamdar	Damoo	1340173743853	21	20.19	5
652.	R-09	Sluch	Abdul gufoor	Umer Daad	1340122345515	42	8.13	10
653.	R-10	Sluch	Chpoo	Umer Daad	1304011506526	35	4.95	8
654.	R-11	Sluch	Ameer	Umer Daad	1340142285973	17	2.03	2
655.	R-12	Sluch	Gul zereen	Manyan	1340173659303	11	5.868	13
656.	R-13	Sluch	Wakeel	Manyan	1340180700183	10	4.07	3
657.	R-14	Sluch	Peer daad	Manyan	1340180217155	13	6.36	3
658.	R-15	Sluch	Gul maa	Manyan	1340133645265	23	5.43	8
659.	R-16	Sluch	Meer zeshan	Manyan	1340167023013	10	5.31	2
660.	R17	Sluch	Freedon	Mania	1340114028733	29	7.44	7

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
661.	R18	Sluch	Abdul satar	Mania	1340139926527	3	3.02	3
662.	R19	Sluch	Jahanzaib	Sumandar	1340112798453	50	8.81	3
663.	R20	Sluch	Zia ur rahman	Abdul Qayyum	1340115106505	39	9.09	12
664.	R21	Sluch	Khan badshah	Aftab Malik	1340162965593	8	8.75	14
665.	R22	Sluch	Haji muhammad ameen	Malik Aftab	1340135708627	80	8.9	9
666.	R23	Sluch	Dedaar shah	Abdul Hakeem Khan	1340160295223	140	20	7
667.	R01	Sluch	Roshan	Alfa Din	1340157887321	380	8.04	21
668.	R01	Summer Nullah	Manzar khan	Darman Khan	1340189265991	50	5	23
669.	R02	Summer Nullah	Qafayat ullah	Sawal Khan	1340132869471	7	1.63	12
670.	R03	Summer Nullah	Darman khan	Abdul Khaliq	1340151334573	45	2.1	23
671.	R04	Summer Nullah	Wali rahmat	Darman Khan	1340128563787	22	4.45	17
672.	R05	Summer Nullah	Saker wali		1340116804651	9	4.67	10
673.	R06	Summer Nullah	Sakar wali	Akram	1340143597701	3	0	21
674.	R07	Summer Nullah	Abdul basir		1340124540215	40	3.3	13
675.	R08	Summer Nullah	Gul nawaz	Hazart Umer	1340151989931	55	2	24
676.	R-21	Thuti	Buber khan	Malik Nawab	1340115029095	26	15.885	24
677.	R-22	Thuti	Aurangzaib	Malik Meer	1340115099921	25	2.65	12
678.	R-01	Thuti	Abdul gufoor	Hader Khan	1340184905125	0	9.9	10
679.	R-02	Thuti	Abdul majeed	Abdul Gufoor	1340115037755	70	4.4	3
680.	R-03	Thuti	Shah rafi-ud-deen	Abdul Gufoor	1340101592203	20	2.7	12
681.	R-04	Thuti	Abdul mateen	Abdul Gufoor	1340149075075	45	4.26	21
682.	R-05	Thuti	Abdul razak	Gul Daad	1340115105495	40	5.4	16
683.	R-06	Thuti	Abdul malak	Gul Daad	1340138247773	60	9.17	15
684.	R-07	Thuti	Gul bar	Raham Taya	1340115027925	0	3.4	1
685.	R-08	Thuti	Jahanzaib	Walayt Khan	1340103463739	0	5.6	11
686.	R-09	Thuti	Mussa	Gul Muhammad	1340119030667	0	6.5	3
687.	R-10	Thuti	Gul shezada	Gul Muhammad	1340100973725	0	6.34	2
688.	R-11	Thuti	Laal muhammad	Bandaly	1340101502829	45	5.6	10
689.	R07	Thuti	Amaldar	Fardoos	1340105890071	25	11.5	17
690.	R08	Thuti	Nazir khan	Chalo Malik	1340115029133	0	6.49	21
691.	R09	Thuti	Qalandar	Nazir Khan	1340115102827	100	3.46	42
692.	R10	Thuti	Share muhammad	Akbar Khan	1350190513315	20	6.12	51
693.	R11	Thuti	Abdul mateen	Abdul Ghafoor	1340149075075	5	12.78	11
694.	R12	Thuti	Raham dad	Gul Rahman	1340115027781	65	6.58	17
695.	R13	Thuti	Jameel	Shaheed	1340160989113	45	10.8	23
696.	R14	Thuti	Taj sawak	Abdul Shakoor	1340115029214	25	15.52	36
697.	R15	Thuti	Safe ul malock	Jamroz	1340123209365	25	7.1	16
698.	R16	Thuti	Jahzeeb	Saeed Akbar	1340192037571	40	23.3	25
699.	R01	Thuti	Gahfran	Bandli	1340189615063	20	17.4	30

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
700.	R02	Thuti	Muhammad nabi	Cut Bazz	1340115029059	8	4.2	42
701.	R03	Thuti	Gul shazada	Juma Deen	4220124664789	0	3.05	19
702.	R04	Thuti	Saraj din	Byetal Deen	1340160680213	0	3.3	3
703.	R05	Thuti	Ali	Hakim	1340126088273	17	8.16	2
704.	R06	Thuti	Didar shah	Abdul Shakoor	1340115029293	30	16.5	21
705.	R01	Thuti	Johar nafees	Abdul Halim	1340115098591	0	4.3	2
706.	R02	Thuti	Bkha	Misar Khan	1340114995007	8	4.79	39
707.	R03	Thuti	Haji muhammad sadeeq	Malik Hasri Khan	1340115098595	15	3.42	34
708.	R04	Thuti	Anayat ullah	Muhammad Sadeeq	1340106283163	14	1.43	41
709.	R06	Thuti	Shan fesal	Haji Rahmat	134011501344	7	1.8	44
710.	R07	Thuti	Ashraf ali	Haji Har Nag	1340115067287	26	10.5	53
711.	R08	Thuti	Abdullah farooki	Muhammad Rafiq	1340114995059	15	1.6	33
712.	R05	Thuti	Ayoub khan	Shahmeer	1340114991317	0	14.2	35
713.	R40	Uchar Nullah	Abdul haqeen	Muhammad Afsar	1340179733435	27	10.29	43
714.	R41	Uchar Nullah	Muhammad jaan	Muhammad Afsar	1340160421259	6	8.41	27
715.	R42	Uchar Nullah	Fazal haq	Noor Wali	1340196441789	23	3.57	29
716.	R20	Uchar Nullah	Abdul gafoor	Muhammad Afsar	1340105551131	65	4.354	47
717.	R21	Uchar Nullah	Abdul qadar	Noor Wali	1340176678735	30	4.52	24
718.	R22	Uchar Nullah	Noor muhammad	Muhammad Afsar	1340197434493	115	5.6	41
719.	R23	Uchar Nullah	Haqam saida	Muhammad Said	1340115071281	6	2.72	38
720.	R24	Uchar Nullah	Khursheed	Muhammad Yousaf	1340102303195	4	4.23	13
721.	R25	Uchar Nullah	Muhammad yousaf	Jumma Said	1340115067879	12	7.125	24
722.	R26	Uchar Nullah	Mumtaz	Jumma Said	1340115130281	7	3.125	22
723.	R27	Uchar Nullah	Gul barsha	Abdul Majeed	1340153219327	5	7.612	30
724.	R28	Uchar Nullah	Noor wali	Muhammad Afsar	1340104591631	52	4.117	43
725.	R29	Uchar Nullah	Abdul malik	Noor Wali	1340171544027	13	3.6	44
726.	R30	Uchar Nullah	Muhammad noor	Muhammad Afsar	1340106709973	51	11.06	35
727.	R07	Uchar Nullah	Abdul wadood	Azool	1340115043887	150	3.94	30
728.	R08	Uchar Nullah	Abdul rehman	Azool	1340115101315	257	3.78	16
729.	R9	Uchar Nullah	Khalil-ur-rehman	Razwal	1340115043901	154	5.66	34
730.	R10	Uchar Nullah	Abdul raheem	Azool	1340115044013	136	2.88	29
731.	R11	Uchar Nullah	Walait noor	Razool	1340115054639	120	4.05	30
732.	R12	Uchar Nullah	Noorwali khan	Qalander	1340190077097	530	4.58	34
733.	R13	Uchar Nullah	Abdul khazir	Sadool	1340115105323	27	1.83	16
734.	R14	Uchar Nullah	Nosheer khan	Saroom Khan	1340115016769	6	1.52	25
735.	R15	Uchar Nullah	Alam sher	Narom Khan	1340115016723	5	3.128	9
736.	R16	Uchar Nullah	Gul shair khan	Shair Dadh	1340115053099	16	6.09	21
737.	R17	Uchar Nullah	Zaboora	Shair Dadh	1340115071301	7	3.501	19
738.	R18	Uchar Nullah	Abdul bafi quraishi	Malak Salam Gear	1340115090285	15	4.62	16

Sr. No	Reg. No	Village Name	Owners Name	Father Name	NIC	Land (Kanals*) *1 Kanal=506m ²	Structures (Marla*) *1 Marla=272 sq.ft	Trees & Plants
739.	R19	Uchar Nullah	Saroom khan	Shair Dadh	1340178003523	6	15.962	12
740.	R01	Uchar Nullah	Said jameel	Qalander	1340172907583	412	3.512	43
741.	R2	Uchar Nullah	Abdul azeez	Haji Qalander	1340123067759	105	3.51	23
742.	R3	Uchar Nullah	Abdullah	Haji Qalander	1340115090057	534	13.32	28
743.	R4	Uchar Nullah	Abdul-jalil	Roshum	1340115051281	202	3.536	43
744.	R5	Uchar Nullah	Abdul rehman	Roshum	1340115114119	206	7.886	42
745.	R6	Uchar Nullah	Biniyameen	Roshan Khan	1340161048981	400	3.44	11
746.	R31	Uchar Nullah	Iqbal	Khushi Khan	1340115097631	127	4.5	17
747.	R32	Uchar Nullah	Bilal khan	Khush Khan	1340115112711	73	5.08	13
748.	R33	Uchar Nullah	Abdur rahman	Bilal Khan	1340173723915	45	6	26
749.	R34	Uchar Nullah	Malik chirag din	Abdul Majeed	1340144948719	180	0	28
750.	R35	Uchar Nullah	Raheem ullah	Malik Chiragudin	1340139844297	600	6.78	29
751.	R36	Uchar Nullah	Muhammad idrees.	Chiragudin	1340128553707	180	3.7	49
752.	R37	Uchar Nullah	Sardar ayub khan	Malik Chiragudin	1340190634953	500	3.56	31
753.	R38	Uchar Nullah	Ahsan ayyub	Chiragudin	1340115118999	200	6.59	37
754.	R39	Uchar Nullah	Muhammad ayyub	Malik Chiragudin	1340129512257	515	7.93	36
755.	R01	Warisabad	Hazart bilal	Muhammad Ayyaz	1340115045961	62	16.9	24
756.	R02	Warisabad	Muhammad ayyaz	Topac	1340115129105	56	3.3	30
757.	R07	Warisabad	Abdul satar		1340115027639	37	4.54	14
758.	R03	Warisabad	Ahsan -u-haq	Lall Khan	1340196526639	86	27.82	39
759.	R8	Warisabad	Abdul waris	Naji Khan	1340115071115	76	4.49	29
760.	R9	Warisabad	Naji khan	Topac	1340115078789	45	16.9	31
761.	R10	Warisabad	Muhammad nawaz	Naji Khan	1340126941801	191	3.9	24
762.	R11	Warisabad	Ghulam ullah	Khan Bahadur	1340197745923	100	8.38	27
763.	R12	Warisabad	Muhammad taaj	Tahseldar	1340115028055	61	5.6	13
764.	R13	Warisabad	Khan bahadur	Tahseldar	1340161158583	100	8.1	14
765.	R4	Warisabad	Islam ul haq	Lal Khan	1340194436473	110	3.65	29
766.	R5	Warisabad	Hukam dar	Abdul Satar	1340168909123	31	4.2	20
767.	R6	Warisabad	Abdul bari	Abdul Satar	1340131321473	120	3.17	30

Appendix N: List of Affected Structures

No.	Hamlet	Village	Affected Population by Different Villages				Residential Structures (No.)	Public Structure (Ha)					Affected Lands (Ha)				
			HH (No.)	Affected Population (No.)				School	BHU	Mosque	Police Station	Shop	Agri. Land	Graze Land	Barren Land	Built Up Area	Total Land
				Male	Female	Total											
Right Bank																	
1	Komila		7	41	28	69	-	-	-	1	1	60	0.14	0.56	12	0.25	12.95
2	Kass	Komila	1	5	4	9	-	-	-	1	-	-	0	0.28	9.38	0.04	9.69
3	Rango		1	19	5	24	-	1	-	-	-	-	0.14	0.84	3.13	0.04	4.14
4	Seo	Seo	6	61	40	101	-	2	1	1	-	8	1	0	0.31	0.21	1.52
5	Siglo	Siglo	109	579	639	1218	108	-	-	2	-	-	20.02	8.4	93.78	3.84	126.04
6	Melar	Maliyar	42	172	164	336	44	-	-	1	-	-	18.59	19.6	171.93	1.48	211.6
7	Koz Kai		14	84	59	143	13	-	-	1	-	-	2.86	5.6	156.3	0.49	165.25
8	Kai Dogah	Doogah	8	24	36	60	8	-	1	-	-	-	1.43	7	62.52	0.28	71.23
9	Seer Gayal	Gayal	56	239	265	504	56	-	-	1	-	-	35.75	28	187.56	1.97	253.28
10	Kot Gal	Kot Gal	32	128	91	219	32	-	-	1	-	2	2	14	171.93	1.13	189.06
11	Warisabad	Thuti	13	46	49	95	13	-	-	1	-	2	0.07	5.6	156.3	0.46	162.43
12	Nut Bail		6	22	18	40	6	-	-	1	-	-	2.15	5.6	62.52	0.21	70.48
13	Thuti		40	125	104	229	37	-	-	2	1	16	1.43	8.4	78.15	1.41	89.39
14	Sluch		24	68	69	137	23	-	-	2	-	1	2.86	4.2	93.78	0.84	101.68
15	Doonder		7	22	23	45	8	-	-	1	-	-	2.86	2.8	93.78	0.25	99.69
16	Gummo		19	55	51	106	19	-	-	1	-	-	10.01	8.4	93.78	0.67	112.86
17	Cheer Shial		8	38	47	85	9	-	-	1	-	-	0	2.8	93.78	0.28	96.86
Total	17	8	393	1728	1692	3420	376	3	2	18	2	89	101.32	122.1	1540.9	13.83	1778.16
Left Bank																	
1	Chuchang	Dasu	104	472	408	880	104	2	-	1	-	4	7.15	8.4	125.04	3.66	144.25
2	Khoshe		4	30	33	63	4	-	-	1	-	6	0.01	2.8	62.52	0.14	65.47
3	Logro	Logro	-	-	-	-	-	-	-	1	-	-	0	14	62.52	0	76.52
4	Uchar Nallah	Uchar Nullah	42	177	190	367	42	2	-	1	1	2	2.86	11.2	93.78	1.48	109.32

No.	Hamlet	Village	Affected Population by Different Villages				Residential Structures (No.)	Public Structure (Ha)					Affected Lands (Ha)				
			HH (No.)	Affected Population (No.)				School	BHU	Mosque	Police Station	Shop	Agri. Land	Graze Land	Barren Land	Built Up Area	Total Land
				Male	Female	Total											
5	Barseen	Barseen	36	116	126	242	36	-	-	2		8	1.43	8.4	78.15	1.27	89.25
6	Largani		9	37	36	73	9	-	-	-	-	-	0.01	2.8	93.78	0.32	96.9
7	Kaigah	Kaigah	49	274	314	588	49	2		1	-	-	21.45	16.8	156.3	1.72	196.27
8	Gul e Bagh / Maidan		30	111	116	227	30	-	-	1	-	-	2	8.4	125.04	1.06	136.5
9	Pani Bah		18	80	61	141	18	-	-	-	1	2	0	14	140.67	0.63	155.3
10	Gadeer		5	25	28	53	5	-	-	-	-	-	0	11.2	125.04	0.18	136.42
11	Chalash		11	41	37	78	8	-	-	-	-	-	0	16.8	125.04	0.39	142.23
12	Looter	Looter	11	49	37	86	11	-	-	1	1	2	0.72	11.2	93.78	0.39	106.08
13	Shori Nullah	Shori Nullah	10	61	55	116	10	-	-	1	-	2	0	14	93.78	0.35	108.13
14	Sommer Nullah	Sommer Nullah	8	40	29	69	8	-	-	1	-	28	0	5.6	93.78	0.28	99.67
15	Lachi Nullah	Sazin	7	68	50	118	7	-	-	1	-	-	1.14	11.2	93.78	0.25	106.37
16	Sazin Camp		6	50	36	86	6	1	-	2	1	6	4.29	1.12	21.88	0.21	27.5
17	Shatial	Shatial	24	174	172	346	24	-	1	1	1	45	0.64	0	0.19	0.84	1.68
Total	17	10	374	1805	1728	3533	371	7	1	15	5	105	41.7	157.9	1585.1	13.17	1797.86
Grand Total	34	18	767	3533	3420	6953	747	10	3	33	7	194	143.02	280	3126	27	3576.02

Appendix O: List of Participant at the 4 National Workshops (2013) and Disclosure Meetings (2014)

Part-A: List of Participant at the 4 National Workshops (2013)

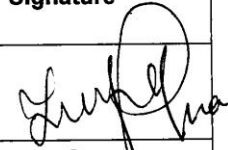


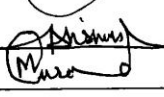


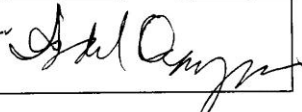
DASU HYDROPOWER PROJECT

Stakeholders Consultations Workshop on Environmental Assessment



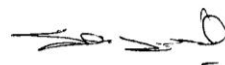

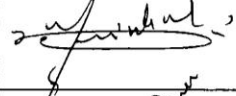
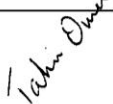
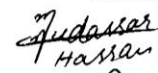


Registration and Attendance

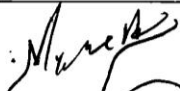

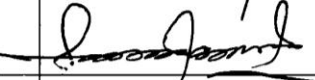
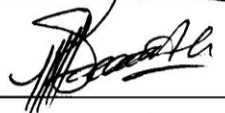

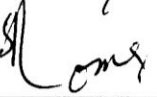

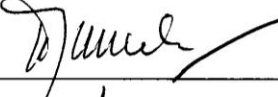
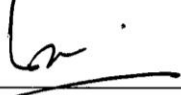
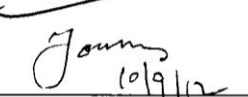
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Date: September 10, 2012

S.No.	Name	Designation and Organisation	Phone No.	Email	Signature
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17	Dr. Roshullah Jan	Health department	091 9213120	-	




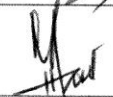
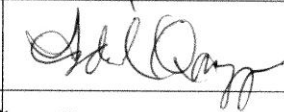


S.No.	Name	Designation and Organisation	Phone No.	Email	Signature
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25	Ghshad Ahmad Soomro	Archaeologist DHC			
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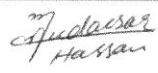
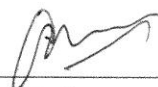



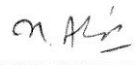
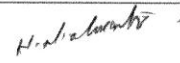

S.No.	Name	Designation and Organisation	Phone No.	Email	Signature
28	Maqsood Ahmed	DD Civil Cim Project (North)			
29	Saijad Ahmed Khan	Dir (Coord) ✓ of GMP/Non Pesh			
30	Qunir Jang Khan	SE civil wapda Mardan ✓			
31	Mansin Ali Khan Dy. Dir (Civil) wapda Pesh	Dy. Dir (Civil) of GMP/Non Pesh ✓			
32	Zaigham Hasan	Asst. Prof. Dept. of Zoology Univ. of Pesh.	0333-9387 787	Zaigham.hasan.68 @yahoo.com ✓	
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34	M. Tariq	SNO T&M wapda Pesh	0344 8589 044		
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36	Col. Wali Ayyaz Khan	Chief Security A76 Lapda ✓	0344-9024585		
37	Mohd Jannis Khan	Deputy Chief Conservator of Forests Lep. Pesh.	0314-7575108		

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Stakeholders Consultations Workshop on Environmental Assessment

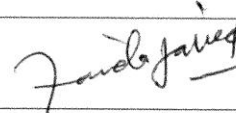
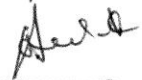

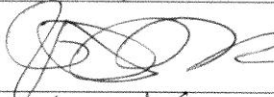


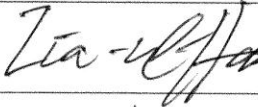



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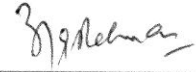
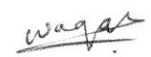

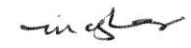





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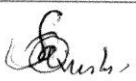


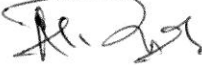

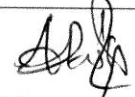

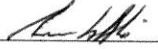


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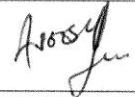
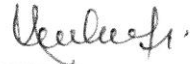

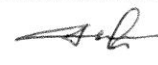


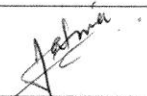



S.No.	Name	Designation and Organisation	Phone No.	Email	Signature
18	Dr. Muhammad Touqeer Bhatti	Assistant Prof.	0321-4327978	touqeerbhatti@yahoocom	
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26	Malcolm Winsky	Aquatic Ecology expert DHP			
27	Dr. Venkata Nubala	Env. specialist			

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51	Abdul Ali	Asst WAPDA	0321- 4562745		
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53	Mr. ATTIA DASTGIR	Adl. Dy. Div (WEC)	042-99202429		
54	Ahmad Ameen	JE (Civil)	042-99202429		
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61	M. Nauman Naji	"	"		
62	IJAZ AHMAD KHAN	Director NDC	0300 8473376		
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65	Naseer Ahmad	Jr. Geologist Hydro Planning	0332-431249		
66	M. Khalid Awanis Rangha	Secretary Energy			
67	Ihsan Qadir	AD WAPDA	0300- 4448416		





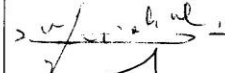

S.No.	Name	Designation and Organisation	Phone No.	Email	Signature
68	Ahmed Munir	AD EPA	0333-4478483		
69	Muhammed Rafique	Director (Keyal)	0302-3953103		
70	Asif Sajid	(WAPDA) Dy: Director	03334899902		
71	Dr. Eng. Abdulwahid Yousif	Asst. Prof SDSC CC unit 5	03004293718		
72	Muhammad Baqir	Chief (W-P) P-D Dept	04244210365		
73	Ahsan ud-Din	Dy. Director Fisheries	0333-4452587		
74	Fatima Taseer	ADF Asst. Design Engr	0331-8441201		
75	Rabia Farooq	WAPDA			
76	Khalid Abu Babar Dy. Dir	On behalf of Genl (CEM) WAPDA	0323-4603167		
77	Naseem Zehra	Chief Executive Aurat Foundation	03004815122		

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DASU HYDROPOWER PROJECT
Stakeholders Consultations Workshop on
Environmental Assessment & Cumulative and Induced Impacts

Registration and Attendance

Location: Avari Towers, Karachi
 Date: September 24, 2012

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4	Dr Venkata Nubala	Consultant DHP		Venkata@caq-consult.com	
5	Zafar Iqbal Ch	Consultant DHP			
6	Ishad Ahmad Soomro	Archaeologist DHP	0333-4366988	Prince.soomro1@yahoo.com	


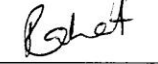


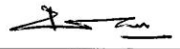

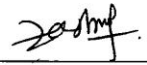
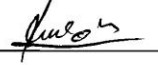
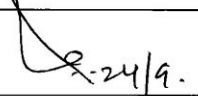
Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Karachi, 24 September 2012

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Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Karachi, 24 September 2012

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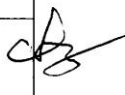
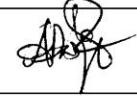

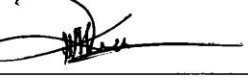
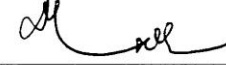

Karachi, 24 September 2012

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DASU HYDROPOWER PROJECT
 Stakeholders Consultations Workshop on
Environmental Assessment & Cumulative and Induced Impact Assessment

Registration and Attendance

Location: Serena Hotel, Islamabad
 Date: October 2, 2012

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Islamabad, 2 October 2012

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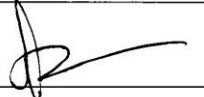









Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Islamabad, 2 October 2012

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Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

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Islamabad, 2 October 2012

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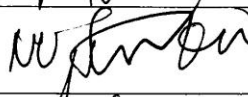
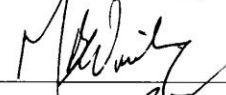


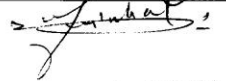

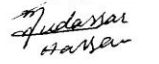
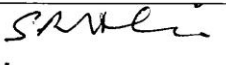
Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Islamabad, 2 October 2012

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Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Islamabad, 2 October 2012

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Stakeholder Consultations on Environmental Assessment & Cumulative and Induced Impacts of DHP

Islamabad, 2 October 2012

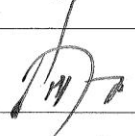
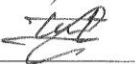
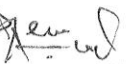
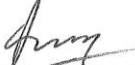



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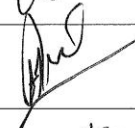





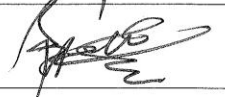
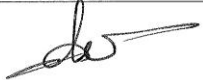
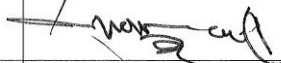


Part-B: List of Participant at the Disclosure Meetings (2014)








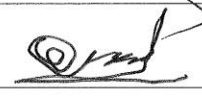


DASU HYDROPOWER PROJECT
 Project Information Disclosure





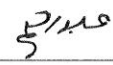





Registration and Attendance






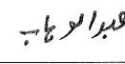

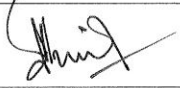

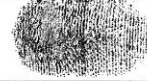
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 Date: February 20, 2014



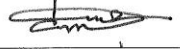





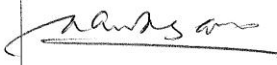

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46	Sayyar Ali Shah	Secretary DHC			
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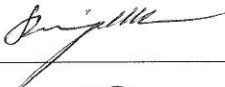




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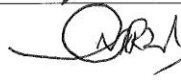

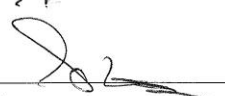




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65	M. Yahya	Seo	03151515556		
66	Hakmat Khan	Chuchang	0315 5841633		
67	Venkata Nukala	Disc			
68	Haji. M. Farooq	PD DASA	0300-4905595		





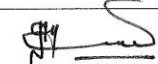


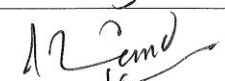

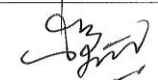
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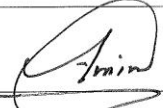




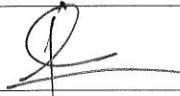
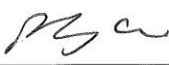



Registration and Attendance

Location: Shelton House, Peshawar
 Date: February 24, 2014




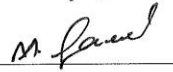
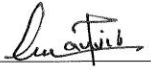

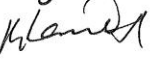
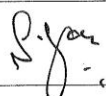
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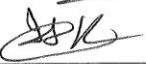





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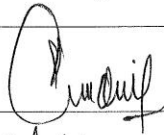








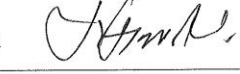
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49.	M. Wajid-Karim	"	0332-9178019	"	
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56.					
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Registration and Attendance

Location: Best Western Hotel, Islamabad
 Date: February 25, 2014








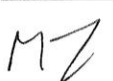
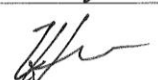
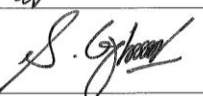

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46	Ahmed Saleem	Consultant	0333-5113391		Ahmed Saleem
47	Mahesh Kumar	Sr. Manager PPIB	0334-5157535		Mahesh Kumar

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Appendix P: Cutoff Date for the Land Acquisition and Social Survey

Sr. No	Component	Amount of Land Required (Kanal)	DC Notification for Land Acquisition
1	Reservoir Area	4,006	N.A
2	Dam and Powerhouse Plant Area	269	12-06-2013
3	KKH Relocation:	42	18-07-2013
4	RAR	157	18-07-2013
5	Colony, Office and Construction Camps	102	N.A
6	Other Uses (Fish Hatchery, Archaeological Sites etc. and Resettlement Sites	67	N.A