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Kurram Tangi Dam Construction



Resettlement Action Plan Component - I

December, 2013

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Map to Kurram Tangi Dam Project Documents

Shown below is the suite of documents submitted to USAID under Contract AID-391-C-13-00002 for the KTDP. This report is shaded in red in order to show its relationship to the full set of documentation.

ENVIRONMENTAL ASSESSMENT

VOLUME I: MAIN REPORT
VOLUME II: PROJECT ECONOMIC BENEFITS
VOLUME III: MAPS

ENVIRONMENTAL MITIGATION AND MONITORING PLAN

MAIN REPORT
ANNEX I: HEALTH AND SAFETY PLAN FRAMEWORK
ANNEX II: WATERSHED MANAGEMENT PLAN
ANNEX III: WASTE MANAGEMENT PLAN
ANNEX IV: FISHERIES MANAGEMENT PLAN
ANNEX V: EMERGENCY PREPAREDNESS PLAN
ANNEX VI: INSTRUMENTATION AND MONITORING PLAN

LAND ACQUISITION AND RESETTLEMENT

RESETTLEMENT POLICY FRAMEWORK

RESETTLEMENT ACTION PLAN (COMPONENT I)

CULTURAL HERITAGE PRESERVATION PLAN

VULNERABLE TRIBES PLAN

GENDER PLAN

KEY SUPPORTING TECHNICAL REPORTS

SUPPLEMENTAL REPORT ON GEOLOGY
SUPPLEMENTAL REPORT ON GEOTECHNICAL ASPECTS
SUPPLEMENTAL REPORT ON SEISMIC HAZARD
SUPPLEMENTAL REPORT ON HYDROLOGY
SUPPLEMENTAL REPORT ON CLIMATE CHANGE

All documents may be read as stand-alone documents, but the reader should be aware of the full set of documents available. Any one document may reference other documents in the suite in order to avoid duplication.

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Kurram Tangi Dam Construction Resettlement Action Plan Component I

USAID Environmental Assessment of Kurram Tangi Dam Construction

Contract Number: AID-391-C-13-00002

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To USAID/Pakistan

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List of Acronyms

BOR,	Board of Revenue
CGMS	Community Grievance Management System
cfs	Cubic feet per second
CLO	Community Liaison Officer
DISCO	Distribution Companies
FATA	Federally Administered Tribal Areas
GIS	Geographic Information System
GPS	Global Positioning System
IMC	Independent Mediation Committee
KP	Khyber Pakhtunkhwa
kV	Kilo Volt
KTDP	Kurram Tangi Multipurpose Dam Project
LAC	Land Acquisition Collector
LAS	Land Acquisition System
LAU	Land Acquisition Unit
LAIT	Land Acquisition Identification Team
MW	Megawatts
NGO	Non-governmental Organization
NTDC	National Transmission Dispatch Company
OP	Operational Policy (World Bank)
PAP	Project Affected Persons
PEPCO	Pakistan Electric Power Company
PESCO	Peshawar Electric Supply Company
PMF	Probable Maximum Flood
PMU	Project Management Unit
RAP	Resettlement Action Plan
RSC	Resettlement Supervision Committee
RPF	Resettlement Policy Framework
USAID	United States Agency for International Development
USAID/Pak	United States Agency for International Development/Pakistan
WAPDA	Water and Power Development Authority
WEC	WAPDA's Environment Cell

Conversion Table

Length				
3.28	ft	=	1	m
5,280	ft	=	1	mile
1	km	=	0.62	miles
1	yard	=	0.91	m
1	inch	=	25.4	mm

Area				
1	acre	=	43,560	ft ²
1	ft ²	=	0.09	m ²

Area units in Pakistan				
1	acre	=	43,560 square ft	
1	Square mile	=	640 acres	

Other Conversions				
100	PKR	=	0.94 USD	(11/2013)

Definition of Terms

Term	Meaning
Involuntary resettlement	“Involuntary Resettlement” refers to both physical displacement (relocation or loss of shelters) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihoods) because of land acquisition undertaken specifically for a project. Resettlement is involuntary when affected individuals or communities do not have the right to refuse land acquisition, which results in their physical and/or economic displacement. This occurs in cases of expropriation and negotiated settlements in which the buyer can resort to expropriation. All resettlement losses are compensated in-kind or in-cash, depending on the context (see World Bank OP 4.12).
Land acquisition	The World Bank Operational Policy 4.12 and other similar international requirements clarify that “land acquisition” covers both full purchases of property as well as the permanent purchase of rights other than full property rights, such as rights-of way, easement and certain usufruct rights. Land acquisition can be permanent or temporary.
Physical displacement	Loss of dwelling or business as a result of project-related land acquisition, which requires the affected person(s) to move to another location. Physical displacement of businesses typically entails economic displacement too.(World Bank OP 4.12).
Economic displacement	Loss of assets (including land) or access to assets that leads to loss of income sources or means of livelihood as a result of project-related land acquisition or restriction of access to natural resources. People or enterprises may be economically displaced with or without experiencing physical displacement. (see World Bank OP 4.12).
FATA	The Federally Administered Tribal Areas (FATA) are a semi-autonomous tribal region in northwestern Pakistan. Of the five districts/agencies affected by KTDP, North Waziristan and the Frontier Region Bannu are located in the FATA. The Constitution of Pakistan governs the FATA through the Frontier Crimes Regulations (FCR, 1901) and some laws and regulation. The laws of Pakistan, in general, do not apply in the FATA.
Stakeholder	Persons or groups with interests in the project and who may be able to influence its outcome either positively or negatively. (World Bank OP 4.12).
Project Affected Person (PAP)	Person or enterprise experiencing either physical or economic displacement or both.
Household	A person or a group of persons who share at least one meal a day. In the KTDP area, a household is generally the group of people that live in a walled compound that can contain one or more houses. A household does not necessarily correspond to a nuclear family: it may consist of one nuclear family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share cooking arrangements. Polygamous families – two or more wives – are considered as one household even if they live in different dwellings. The household is the basic eligibility unit considered in this RAP and entitlements are allocated to households rather than to individuals or quams (extended families).
Land categories in the KTDP project area	<p>Developed land:</p> <ul style="list-style-type: none"> • Residential land: Land used for residential purposes, either fenced or enclosed as compounds. • Gardens: Mostly located in or close to the compound. • Bari: Irrigated, well manured land situated near a village – mostly used for maize; • Sholgara: Land near water sources (springs, rivulet, streams .) where it can receive maximum irrigation – mostly used for rice and maize; • Saadin: un-irrigated rain-fed land; • Ghar: Land situated in the mountains that based on its access to water is classified as Ghar Sholgara or Ghar Saadin; <p>• Developed land minus residential land is called agricultural land</p> <p>Undeveloped land: Worsho: Pasture that cannot be tilled & Zangal: Forested areas.</p>
Cropping seasons and major annual crops	There are two distinct seasons with different crops: Rabi (September till April): Main crops are wheat and barley, but also fodder and oil seeds (rape and mustard) are planted; Kharif (April till September): Main crops are rice and maize, but also sugarcane and pulses are planted.
Orchards: fruit trees and firewood	The most common fruit trees are: Plums, grapes, pomegranates, mulberry, malta, guavas, walnuts, peaches, apricots and lemon. Firewood plantations are rather uncommon and mostly deadwood, scrub and remains of natural forest used.
Land tenure in FATA	In the FATA, traditionally all land is customary owned by the tribe and administered by the clan (see vulnerable peoples plan for KTDP). This situation has been reflected in the FATA legislation established between 1875 and 1901. Nevertheless, over the last 110 years livelihoods have shifted from pastoralism to transhumant to resident agriculture. In turn, households in the tribal area have obtained at some stage from their clans land for agricultural and residential purposes, have improved this land through their own labor and investments, perceive themselves and are perceived by others as the owners of residential and agricultural land even if they have no formal title, are the sole decision maker of this developed land: thus, have what one calls the “permanent user rights”. In line with international standards, developed lands has consequently two owners: the customary owner of the undeveloped land, while the improvement (i.e. Residential land, Gardens, Bari, Sholgara,

Kurram Tangi Dam Project
Resettlement Action Plan Component I

Term	Meaning
	Saadin, Gar and orchards minus the Worsho) is owned by the holder of the permanent user rights. All undeveloped land, i.e. all land that is not used for agriculture, residential purposes or orchards, is entirely controlled by the clan and customary owned by the tribe. It is the clan that decides to grant parts of it to households to establish new residents or farmland and it is the clan that recovers unused agricultural and residential land when it has been not used for several years.
Formal/ formalisable temporary user rights (tenants)	Non-rent system: These tenants don't pay any rent in cash or in kind but provide free services to landlords, attend guests at the Hujra, undertake errands, collect fuel wood, serve as bodyguard. Share Rent System: Here the rent is defined by many factors notably type of soil, state of irrigation, proximity to the village and might change from one part of a single plot to another and therefore make it impossible to compare costs. Nevertheless, in most cases the rent is defined by a division of the total yield and a 50:50 division of the yield the most common way. Cropper system: Here the system is that the tenant only contributes manual labor i.e. is basically a laborer, who does not receive a fixed wage but between 1/4 and 1/5 of the yield as salary.
Informal right holder	Person or group of persons recognized by customary rules as having certain ownership or usufruct rights over an asset or resource/ although these usufruct rights are neither formalized in a legal document such as a title nor officially registered. See the World Bank's OP 4.12 for more details). Typical situations where informal right holders are encountered include: <ul style="list-style-type: none"> • Slum dwellers in urban settings, where neither landlords nor occupants have formal ownership or occupation rights; • Road side or street side businesses established on a public space (a contradiction typical of such businesses is that while their occupation of the public domain is not recognized, their existence as a business is recognised through registration or payment of taxes); Informal ownership or occupation is not recognized in Pakistan but is by all sides not considered as a "black-and-white" situation and there are many gray areas: informal right holders may be illegal from the standpoint of some authorities, and legal or even encouraged for others.
Land and land-use conflicts	Intertribal conflicts and land disputes in the FATA as well as in the settled areas are very common. In addition, in the FATA landownership and land use agreements are not documented as well as the land-use agreements. Finally, in the settled area the cadaster is not up to date. Experience shows that this will result in a large number of conflicts about conflicting claims of ownership as well as over the exact nature and conditions of the land-use agreements.
Farm laborer	Farm labor is limited in the RAP to "hired labor", which is composed of <ol style="list-style-type: none"> a) regular laborers that are engaged for a considerable time (6 months or more), b) casual laborers who are hired for a specific operation on daily wage basis, and c) workers ("husher") invited to assist on exchange basis during harvest . The RAP does not consider "family labor", which is provided by members of the same household as farm labor, as the RAP considers in front of the tribal background of all PAPs "households" as basic unit for compensation and not individuals as in other parts of Pakistan.
Vulnerable groups	Vulnerable or "at-risk" groups includes people who, by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage or social status may be more adversely affected by displacement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. The Resettlement Plan therefore puts in place supplemental assistance to assist each category of vulnerable persons during resettlement. See also the Vulnerable Tribes Plan of KTDP.
Cut-Off Date	The date that establishes eligibility for compensation and other benefits related to land acquisition. Best practice suggests using the date on which the census and assets inventory is started in a particular community or area. In order for the Cut-Off Date to be valid, PAPs are notified. A census conducted at a declared Cut-Off Date is, as a rule, valid for a period of two years from the start of the census. See for more details the OP 4.12
Compensation	Payment in cash or in kind for loss of an immovable asset or a resource that is acquired or affected by the project.
Allowance	Cash paid to defray resettlement related expenses other than losses of immovable assets. For example, tenants can be provided with a cash <i>allowance</i> to support their effort to secure alternative housing. A moving <i>allowance</i> can be paid to people who have to relocate as a result of Project land acquisition. An <i>allowance</i> is distinguished from compensation, which reimburses the loss of an immovable asset.
Livelihood	A livelihood comprises according to the World Bank's OP 4.12 the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.
Livelihood restoration	Specific activities intended at supporting displaced peoples' efforts to restore their livelihoods to pre-project levels. Livelihood restoration is distinguished from compensation. Livelihood restoration measures typically include a combination of cash or other allowances and support activities such as training, agricultural assistance or business enhancement. Livelihood restoration is often referred to as economic rehabilitation. (See OP 4.12)

Kurram Tangi Dam Project
Resettlement Action Plan Component I

Term	Meaning
Resettlement Policy Framework (RPF)	Where a project or sub-project is not defined to such a level that a final footprint is available and or detailed data are missing, an RPF defines the principles with which any Resettlement Action Plan will accord and outlines the expected impacts and compensation, physical relocation and livelihood restoration programs.
Replacement value	<p>The current market value of the asset plus transaction costs (e.g. taxes, stamp duties, legal and notarization fees, registration fees, travel costs and any other such costs as may be incurred as a result of the transaction or transfer of property). In applying this method of valuation, depreciation of structures and assets is not taken into account. For losses that cannot easily be valued or compensated for in monetary terms, in-kind compensation may be appropriate. However, this compensation should be made in goods or resources that are of equivalent or greater value and that are culturally appropriate. With regard to land and structures, replacement costs are defined as follows:</p> <p>Agricultural land—the market value of land of equal productive use or potential located in the vicinity of the affected land, plus the cost of preparation to levels similar to or better than those of the affected land, and transaction costs such as registration and transfer taxes.</p> <p>Residential land—the market value of land of equivalent area and use, with similar or improved infrastructure and services preferably located in the vicinity of the affected land, plus transaction costs such as registration and transfer taxes.</p> <p>Houses and other structures—the cost of purchasing or building a new structure, with an area and quality similar to or better than those of the affected structure, or of repairing a partially affected structure, including labor and contractors' fees and transaction costs such as registration and transfer taxes.</p>
Adequate housing	Adequate housing or shelter can be measured by quality, safety, affordability, habitability, cultural appropriateness, accessibility, and locational characteristics. Adequate housing should allow access to employment options, markets, and basic infrastructure and services, such as water, electricity, sanitation, health-care, and education. International standards afford adequate housing and security of tenure to displaced persons at resettlement sites.

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Resettlement Action Plan

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EXECUTIVE SUMMARY

The Kurram Tangi Multipurpose Dam Project (KTDP) consists of three components that will be implemented sequentially, over a 10+-year timeframe:

- Component 1: Tribal Areas Development;
- Component 2: Kurram Tangi Dam; and,
- Component 3: Irrigation Development.

Experience worldwide, including many projects in Pakistan, document that land acquisition for large-scale infrastructure projects, such as dams and irrigation projects, if unmitigated, often gives rise to severe economic, social, and environmental impacts. To address and mitigate these impoverishment risks as well as related operational risks (delays, reputational risks and cost increase), international standards and best practice require that projects prepare a Resettlement Action Plan (RAP). This RAP applies to all lands/resources that will be acquired for Component I (Tribal Area Development) of KTDP during project preparation, construction, operation and decommissioning and covers all Subcomponents and associated facilities regardless of who conducts the land/resource acquisition process. This RAP has been developed in accordance with the Resettlement Policy Framework (RPF) for the KTDP, the relevant legislation of the Islamic Republic of Pakistan as well as the World Bank Policy on Involuntary Resettlement (OP 4.12) and complies with its requirements.

KTDP's Component I consists of the following Subcomponents:

- Subcomponent I.1: Kaitu Weir, reservoir and associated facilities.
- Subcomponent I.2: Canals, Roads and Powerhouses.
- Subcomponent I.3: Transmission lines.
- Subcomponent I.4: Sheratalla and Spaira Ragha Command Areas.

Land acquisition normally causes a) physical displacement (Loss of dwelling or business as a result of project-related land acquisition, which requires the affected person(s) to move to another location as well as b) economic displacement (Loss of assets (including land) or access to assets that leads to loss of income sources or means of livelihood as a result of project-related land acquisition or restriction of access to natural resources. People or enterprises may be economically displaced with or without experiencing physical displacement. To avoid, mitigate and address adverse impact of KTDP's land acquisition, the process is guided by the following principles:

- Involuntary resettlement and land acquisition shall be avoided where feasible, and, where unavoidable, minimized to the fullest extent possible, exploring all viable alternatives;
- Where physical and economic displacement is unavoidable, resettlement and compensation shall be conceived and executed as sustainable development programs, providing sufficient investment resources and provide the affected people with the opportunity to share project benefits;
- Affected people shall be meaningfully consulted and shall have opportunities to participate in planning and implementing resettlement and compensation programs. Where segments of the population are effectively disenfranchised in one way or another (e.g., women {see KTDP's Gender Plan}, vulnerable tribes {see KTDP's Vulnerable Tribe Plan}), special efforts will be made to incorporate their views into the planning process;
- In-kind compensation is preferred for residential land and structures and agricultural land,
- Compensation will be provided to the households concerned and affected in a timely fashion; no civil works will commence until resettlement compensation has been independently certified as completed to the fullest extent possible;
- Project-affected people will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of the project implementation, whichever is higher;
- Carry out land acquisition, resettlement and compensation in compliance with the laws of Pakistan and the World Bank's OP 4.12 and apply the more rigorous standard, where they differ;

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- Establish resettlement sites, new homes, related infrastructure, public services etc. in close consultation with the PAPs, and pay all compensations before the commencement of civil works;
- Seek to improve or at least restore affected livelihoods;
- Monitor, evaluate and report implementation and outcomes; and,
- Implement an effective and responsive grievance mechanism.

The following Entitlement Matrix defines the entitlements for each affected asset and/or right and clarifies, who is entitled for what.

Table 0-1: Entitlement Matrix for Component I			
Affected asset or right	Entitlements		
	Compensation	Allowances	Livelihood Restoration
Land			
Recognized as clan holding a specific territory in the FATA or recognized as customary owner of undeveloped land in the settled areas	FATA: In-kind compensation in new Command areas or cash compensation for un-developed land paid to clan Jirga In settled areas: Cash compensation for undeveloped land paid to communities	Land Transfer costs	N/A
Owner or having permanent user rights to agricultural land	The preferred option is replacement land of similar size and quality in new Command Area (at least 1 acre) or if not land based livelihood cash compensation.	Land Transfer costs	Replacement land preparation allowance
Owner or having permanent user rights to residential or commercial land	The preferred option is replacement land of similar size and quality as acceptable location or if none-resident or moving out cash compensation	Land Transfer costs	N/A
Land Use			
Peasant owner & Peasant – permanent right holder	N/A	Peasant Transition for time between land take and replacement of land	<ul style="list-style-type: none"> • Training in irrigated agriculture • Equipment; • Seeds, etc. for one year • Access to credit
Tenant of agricultural land	N/A	Land tenancy replacement	
Agricultural Encroacher farmworker	N/A	Self-relocation	
Easement for transmission line	Cash compensation at replacement value for land under towers and 10% of replacement value for all other land within restriction corridor	N/A	N/A
Annual crops	Compensation in cash if they can't be harvested before construction to owner of crops (farm owner or tenant)	N/A	N/A
Perennial crops	Compensation in cash plus 5 seedling	N/A	N/A
Structures, buildings, houses etc.			
Residential House: Titled owner or recognized permanent right holder	Each house is compensated in-kind on a serviced residential plot of similar size, similar area of equal or better materials and at least 4 rooms + compensation in cash for additional infrastructure + salvaging of materials or only cash compensation, if people have other houses etc.	Connection Allowance For houses rented out: Allowance for lost rental income	N/A
Owner residents & Permanent right holder residents	N/A	Moving allowance Transition allowance	N/A
Tenancy or free-of-charge occupation of a residential house	N/A	Rental re-establishment Moving & Transition	N/A
Ownership/permanent rights holder over a commercial (non-residential) building and/or other structures	Replacement structure on a serviced residential plot of similar size, similar area with equal or better construction materials or cash compensation	Allowance for lost rental income	N/A

Table 0-1: Entitlement Matrix for Component I

Affected asset or right	Entitlements		
	Compensation	Allowances	Livelihood Restoration
Businesses	N/A	Allowance for loss of business income	Livelihood restoration package
Business employees	N/A	Allowance for loss of income	livelihood restoration if employee loses job
Communal building	Either reconstruction or compensation in cash on case-by-case valuation.	Allowances for any ceremonies.	N/A
Vulnerable People (See KTDP's Vulnerable Tribes Plan)	N/A	Case by case	Case by case

The following table shows the surface area of land to be permanently or temporarily acquired including land needed for the establishment of the canal command areas and the number of people affected by physical and/or economic displacement:

Table 0-2: Affected Land Use And Project Affected People – Component I

Subcomponents	Affected land and land use (acres)					Project affected People	
	Total	Agric	residential	water	Undeveloped	physical	Economic
I.1 Kaitu Weir, reservoir etc.	58.7	18.5	0.0	30.3	9.9	0	515
I.2 Canals, roads, powerhouses,	554.9	126.6	4.8	12.0	411.4	436	1,010
I.3 Transmission lines	335.6	74.0	3.6	28.0	230.1	109	3,330
I.4 Command Areas	22,729	8,651	313	616	13,149	5,669	90,485
Total Component I	23,679	8,870	321	686	13,801	6,214	95,340

The RAP Section for Subcomponent I.1 (Kaitu Weir, reservoir and associated facilities) has been fully developed based on detailed engineering design. After payment of upfront compensations and allowances and signing of agreements with all affected households that entitles them to receive land for land compensation in the Spaira Ragma or Sheratalla Command Areas, construction can start.

Subcomponents I.2, I.3 and I.4 are earmarked to benefit from a route refinement that avoids the 671 residential structures presently within the footprint of Component I, subsequent detailed engineering design and a land allocation strategy that assures that all land in the Spaira Ragma Command Areas is used to provide land for land compensation to the affected households and clans of Component I. Based on that the following actions need to be conducted and documented in addendums to this RAP:

- Updated census and asset inventory of the affected people;
- Updated compensation rates;
- Review and acceptance of the amended RAP by the Panel of Experts;
- Disbursement of compensation, allowances and assistance to the affected people via bank transfer to heads of affected households and signing of agreements with the affected households and clans on land for land allocation in the Spaira Ragma and Sheratalla Command Areas (Subcomponent I.4);
- Construction Work & Training in Irrigation Agriculture and livelihood restoration measures; and,
- Distribution of land titles and irrigated land to the affected households and distribution of start-up packages and extension services to assure that the affected Wazir benefit from the project.

To acquire all land based on the available design for KTDP's Component I including the Command Area through cash compensation would cost around PKR 37 Billion. Through an optimized design that a) puts in place mechanisms to avoid residential houses in road, canal, Command Area and transmission line development and b) assures that each affected household and clan receives land for land compensation in the new Command Areas of an equal size but at least one acre at an enhanced quality reduces the required amount for land acquisition and resettlement by 85 percent to PKR 5.4 Billion.

Table 3: Summary of Resettlement Costs

	Using present design	Optimized budget	Implementing agency
Compensation, Allowances and Assistance			
Subcomponent I.1 (Kaitu Weir, reservoir, etc.)	66,080,771	44,836,955	WAPDA
Subcomponent I.2 (structures)	51,346,310	0	WAPDA
Subcomponent I.2 (other land)	563,494,473	169,611,507	WAPDA
Subcomponent I.2 (powerhouses)	20,561,961	20,561,961	WAPDA
Subcomponent I.3 (transmission lines)	53,587,694	29,992,242	PEPCO
Subcomponent I.4 (Spaira Ragha)	5,770,118,032	976,311,800	FATA Irrigation
Subcomponent I.4 (Sheratalla)	27,417,998,630	3,639,149,000	FATA Irrigation
Subtotal	33,943,187,871	4,880,463,465	
Overhead Costs			
Implementation management (2014-2017)	9,000,000	9,000,000	
RAP development & amendment		10,000,000	
Supervision and monitoring	10,000,000	10,000,000	
Capacity enhancement	20,000,000	20,000,000	
Contingency (10% of compensation, etc.)	3,394,318,787	488,046,347	
Total (PKR)	37,376,506,658	5,417,509,812	

The RAP will be implemented under the supervision of:

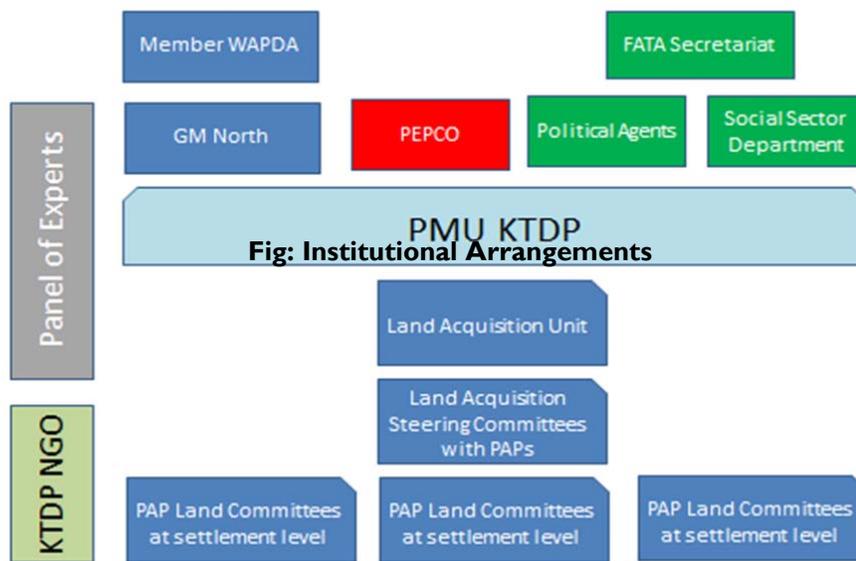
- **WAPDA's Land Acquisition and Resettlement Unit** that will supervise all land acquisition and resettlement work and provide high-level guidance. To assist WAPDA to effectively supervise land acquisition and resettlement capacity enhancement will be offered if needed.
- **FATA's Social Sector Depart & Political Agent North Waziristan & Assistant District Commissioner FR Bannu** that will supervise all land acquisition and resettlement work in FATA and provide high-level guidance on tribal issues. To assist FATA to effectively supervise land acquisition and resettlement, capacity enhancement will be offered if needed.
- **Directorate of Irrigation FATA** that will supervise the land consolidation for the Spaira Ragha and Sheratalla Command Areas effectively. To assist the Irrigation Directorate to effectively supervise land acquisition and resettlement, capacity enhancement will be offered if needed.
- **A Panel of Experts** that will assure compliance with international standards and this RPF through quality advice and quality control (See also Chapter 2 of EA and Chapter 2 of EMMP).

Capacity enhancement and backstopping: An effective training program emphasizes policy training for senior management and operational training for land acquisition staff. Sending staff to similar projects can be an inexpensive yet effective way of building resettlement capacity. Such interactions are particularly useful, because practitioners are involved in the exchanges, and the context, problems, and issues are likely to be similar.

NGOs supporting the PAPs: NGOs play today a very important role as “watch dogs” for many different kinds of issue and/or informing affected people about their rights and options and/or assist them in the decision making and relocation process.

Monitoring and evaluation: Good institutional design makes implementation easier, but effective monitoring ensures it stays on track. Even projects with the best RAPs and exceptionally supportive organizations are likely to run into problems and issues during implementation. Timely identification and resolution of these problems are critical to achieving desired resettlement outcomes. Effective monitoring is essential. To be most effective, monitoring will cover both internal monitoring, conducted by the LAU, and external monitoring, conducted by a qualified independent agency.

¹ The numbers of affected households and persons are conservative estimates based on GIS interpretation and limited surveys. These numbers as well as the size of household landholdings require ground truthing prior to finalization of the resettlement budgets.



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I PROJECT DESCRIPTION

I.1 Purpose and Scope of this Resettlement Action Plan

Experience worldwide, including projects from Pakistan, document that land acquisition of large scale infrastructure projects such as dams and irrigation projects, if unmitigated, often gives rise to severe economic, social, and environmental impacts². To address and mitigate these impoverishment risks, international standards and best practice, such as those of the World Bank, require that projects prepare a Resettlement Action Plan (RAP) as a pre-condition for participation in funding.

A RAP effectively constitutes a ‘blueprint’ for the resettlement and livelihood restoration operation, so it must be based on up-to-date and reliable information about the proposed land and resource access as well as precise and up-to-date information on the socio-economic baseline situation within the footprint of the project. The RAP must, therefore, be based on the final (or near final) engineering plans so that the project footprint can be precisely delimited.

A RAP commonly consists of several basic features: a statement of policy principles; a list or matrix indicating eligibility for compensation and other entitlements or forms of assistance; a review of the extent and scope of resettlement based upon a census/survey of those affected by the project; an implementation plan establishing responsibility for delivery of all forms of assistance, and evaluating the organizational capacity of involved agencies; a timetable coordinated with the project timetable, assuring (among other things) that compensation and relocation are completed before initiation of civil works; and, discussion of opportunities afforded those affected to participate in design and implementation of resettlement, including grievance procedures.

This RAP applies to all lands/resources that will be acquired for Component I (Tribal Area Development) of the Kurram Tangi Multipurpose Dam Project (KTDP) during project preparation, construction, operation and decommissioning and besides the Subcomponents outlined in section 1.2 covers all associated facilities regardless of who conducts the land/resource acquisition process. This RAP has been developed in accordance with the Resettlement Policy Framework (RPF) for the KTDP, the relevant legislation of the Islamic Republic of Pakistan as well as the World Bank Policy on Involuntary Resettlement (OP 4.12).

I.2 Project Description

KTDP aims: i) to increase agricultural production in one of the most underdeveloped regions of Pakistan through the comprehensive development of land and water resources by establishing new storage, canals and command areas, remodelling and/or improving existing ones and ii) to generate hydropower, through the construction of four dams: a weir on the Kaitu River as well as a large dam and two weirs, one of which is a large dam under ICOLD definitions, on the Kurram River.

The KTDP is scheduled to be implemented in three components over at least 10 years, as follows:

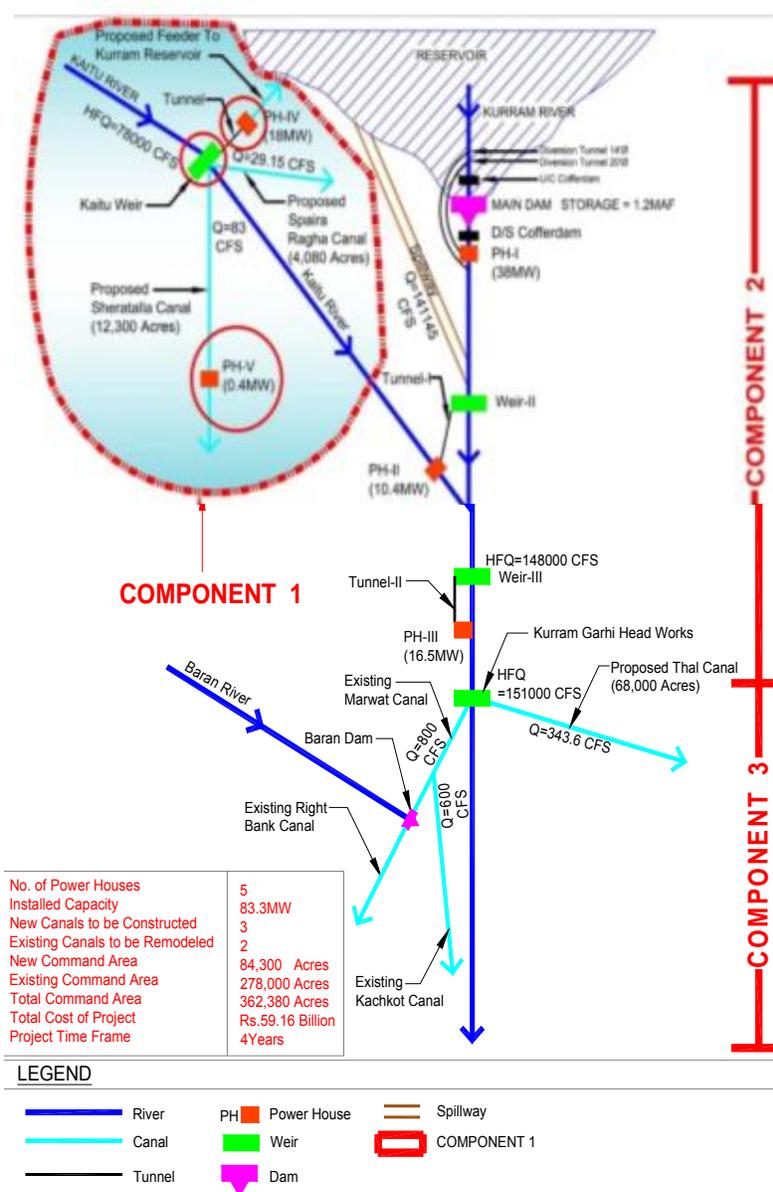
- **Component I**, Tribal Area Development, contains a weir on the Kaitu River for hydropower and irrigation of two proposed perimeters, Spaira Ragma to the north and Sheratalla to the south. The Component includes also two powerhouses (IV and V) and a transmission line to the Domail substation near Bannu. These investments are scheduled to commence in 2014.

² Production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This in turn triggers operational and reputational risks to the developer and supporting partners such as Multilateral Financial Institutions.

- **Component 2**, Kurram Tangi Dam, consists of a large and two weirs on the Kurram River for electricity and irrigation purposes. Component 2 has not progressed as scheduled, with the consequence that construction of this component can likely not commence before 2018.
- **Component 3**, Irrigation Development, aims to move water from the Kurram Tangi reservoir to irrigated perimeters on the Bannu plains. It cannot start within the foreseeable future due to the lack of detailed engineering plans. Because Component 3 investments depend on the completion of the Component 2 program, it is unlikely that irrigation developments will begin before 2020 at the earliest.

The KTMP will impact five districts/areas in North West Pakistan: i) North Waziristan, ii) Frontier Region Bannu, iii) Bannu District, iv) Lakki Marwat and v) Karak. The first two are located in the Federally Administered Tribal Area (FATA), the last three in the settled areas of the Khyber Pakhtunkhwa Province (KP). Thus, Components 1 and 2 with the exception of minor parts of the access roads and transmission line lie in the FATA, while, Component 3 plus minor parts of the access roads and the transmission line of Components 1 and 2 are located in the Districts of Bannu, Lakki-Marwat and Karak.

Figure I-1: Overall Diagram of the Components of KTDP



1.2.1 Component I: Tribal Area Development

This RAP covers Component I, which is expected to bring much needed economic development to North Waziristan through the sustainable management of water and land resources. The project has been studied for many years and enjoys full support from various FATA, KP and Federal Government agencies, including WAPDA, the lead agency responsible for its construction and operation.³

Component I involves the construction of four subcomponents:

- Subcomponent 1.1: Kaitu Weir, reservoir and associated facilities.
- Subcomponent 1.2: Canals, Roads and Powerhouses.
- Subcomponent 1.3: Transmission lines.
- Subcomponent 1.4: Sheratalla and Spaira Ragma Command Areas.

While WAPDA is the overall implementing agency and in charge of Subcomponents 1.1 and 1.2, Subcomponent 1.3 (transmission lines) is scheduled to be developed by the Peshawar Electric Supply Company (PESCO) and Subcomponent 1.4, the tertiary canals and the development of the Command Areas, by the Irrigation Department of FATA.

While engineering design for Subcomponents 1.1 and 1.2 is quite advanced, it remains at the feasibility stage for Subcomponents 1.3 and 1.4.

1.2.1.1 Subcomponent 1.1: Kaitu Weir, Reservoir and Associated Facilities

A weir is foreseen to be constructed on the Kaitu River about 400 feet upstream of the Mir Ali - Thal Road Bridge, and about 17.5 miles upstream of the confluence of the Kaitu and Kurram Rivers. The weir will store water in a reservoir with a surface area of 45.2 acres facilitating the diversion of water to irrigation canals and to the Kurram Tangi Dam Reservoir via Powerhouse IV. In addition, the weir provides a means to safely pass Kaitu flood during monsoon.

Type	Free overflow
Crest Elevation	2,353 ft msl
Crest Length	302 ft
Height above river bed	18 ft
Water Pool Surface Area	45.2 acres
Length of Pool	0.5 mi
Design Flood	78,000 cfs
Stilling Basin Length	80 ft

To establish the Kaitu weir and reservoir a construction camp and quarries for construction materials are needed:

³ Proposals for a comprehensive water and land resource management of the Kurram River basin have been under consideration since the mid-1950s. Subsequently investigations and studies have been undertaken by the Water and Power Development Authority (WAPDA): a) Planning Report 1960, b) Reconnaissance Report on Kurram River Basin 1967, c) Conceptual Report on Kurram Tangi Dam 1990, d) Kurram Tangi Dam Multipurpose Project Pre-Feasibility Report 1992, e) Feasibility Study Report for the Kurram Tangi Dam Project, including an Environmental Impact Assessment (EIA) and Resettlement Plan (2004). The Feasibility Study forms the basis of the current project proposal and builds on existing infrastructure notably a control weir on the Kurram River at Kurram Garhi and the associated Civil and Marwat Canals with their command areas near Bannu.

Construction Camps. The location of the associated construction camp has yet to be defined. The Tender Documents for the Construction Contractor suggests that he shall decide the most appropriate locations and rent or purchase it through a willing buyer – willing seller contract. WAPDA mentioned recently the possibility of using an old army base located on the left bank of the Kaitu River, which could be used as the Headquarters for the construction contractor, but most likely it will not be large enough for a full construction camp.

Construction Material. Table I-2 lists the quantities of the major construction material needed for the construction of the Kaitu Weir. A crushing and screening plant as well as a patching plant will have to be established to produce coarse and fine aggregates required for concrete works. Reinforced steel and cement will have to be procured from sources to be identified prior to the start of the construction, but most likely from outside Component I through commercial agreements.

Excavation	53 million ft ³
Filling	176 million ft ³
Concrete	6.5 million ft ³
Steel Reinforcement	7.3 million lbs
Cement	900,000 bags

Subcomponent I.1 will be implemented by WAPDA and is the first Subcomponent that will be constructed.

1.2.1.2 Subcomponent I.2: Canals, Roads and Powerhouses

From the Kaitu Reservoir, there will be two off-takes for the Sheratalla and Spaira Ragha Canals:

The proposed Spaira Ragha Canal System, located on the left bank of the Kaitu River, will comprise concrete lined gravity and lift channels provided with regulating structures, cross drainage structures, bridges, culverts, escape structures and outlets. This canal divides into two canals, one of which will have a 55-foot lift and pumping station, located at RD 10+780 and capable of lifting 10 cubic feet per second (cfs) using electricity produced from Powerhouse V to feed water to the lift minor of the Spaira Ragha Canal. The pumping station will comprise a pump house, five electric pumping sets and ancillary electrical and mechanical works.

The proposed Sheratalla Canal System on the right bank will comprise eight distributaries, seven minors and sub-minors, regulating structures including head regulators, cross drainage structures, bridges, escape structures and outlets.

	Sheratalla Canal	Spaira Ragha Canal
Off-take Point	Right Bank	Left Bank
Command Area	18,427 acres	4,302 acres
Design Discharge	83 cfs	29 cfs
Total Canal Length (Main/Minor/Distributary)	16 miles	8 miles
Main Canal Bottom Width	4.5 ft (typ.)	4 ft (typ.)
Main Canal Right of Way including Longitudinal Drain	47 ft (typ.)	43 ft (typ.)

The canals will have differing sizes at various segments but will have a trapezoidal shape as well as a concrete lining. The construction of the two canal systems is scheduled to start about three months

after the beginning of the construction of Kaitu Weir and last for about 21 months. The canals bed will be excavated by backhoe and graded to the specified slope. A gravel foundation will be laid down and concrete poured and smoothed to the specified contours.

Powerhouse IV. There will be a third off-take from the Kaitu Reservoir to provide water for a powerhouse located in the Kurram River. A sediment excluder is provided at the beginning of the waterway. This 60-ft wide and 120-ft long concrete structure allows the suspended sediment to settle out before entering the feeder channel. Water then travels through a 950-ft long feeder channel leading to a 14-ft diameter feeder tunnel excavated under the high mountain located in the left bank of the Kaitu River. The 6,100-ft long tunnel is followed by a 15,000-ft long headrace channel and a 900-ft steel penstock culminating in Powerhouse IV. A short tailrace channel will discharge water from the powerhouse to the Kurram Tangi Reservoir. Powerhouse IV and associated waterways thus facilitate the diversion of Kaitu River flows in excess of irrigation requirements at the Spaira Ragma and Sheratalla systems and downstream minimum release, for storage in Kurram Tangi Dam and generate a maximum of 18 MW of hydropower. The main characteristics of the sediment excluder, waterways and powerhouse are shown in Table I-4.

Sediment Excluder	122 ft x 60 ft
Feeder Channel	950 ft
Tunnel	6100 ft long, 14 ft diameter
Head Race Channel	15,000 ft
Penstock	900 ft long,
Number of Units	2
Length and width	141 ft by 105 ft
Total Installed Capacity	18 MW
Design Discharge	635 cfs
Normal Tailwater Elevation	2,125 ft
Switchyard Size	160 ft x 360 ft

Powerhouse V. It is foreseen to recover the energy from the gravity flow of the Sheratalla Canal through a small powerhouse. Water will be conveyed to the surface type powerhouse via a waterways system consisting of a feeder tunnel, headrace channel and two parallel penstocks. The main characteristics of this powerhouse are shown in Table I-5.

Design Discharge	50 cfs
Gross Head	112 ft
Installed Capacity	0.4 MW
Number of Units	2
Turbine Type	Horizontal Shaft Cross Flow
Length of Feeder Tunnel	1,300 ft, 7 ft diameter (horse-shoe shape)
Length of Headrace Channel	125 ft
Length of Steel Penstocks	2 x 850 ft long, 2 ft diameter
Length of Tailrace Channel	525 ft

Access Roads. A new 12 mile road will need to be constructed from Spinwam to the Spaira Ragma Plains to facilitate access during construction of the canals as well as during operations. The present design is rather preliminary and allows room for improvement. Similarly access roads needed for the Powerhouses 4 and 5 have not been developed beyond the feasibility stage.

The existing Mir Ali-Thal Road and the bridges along the road will be upgraded to make them suitable for handling the design loads required to transport the heaviest piece of equipment used in the Project. The Spinwam Bridge, especially, will be inspected for soundness. If its design loading is found to be insufficient to carry heavy-load construction vehicles, the existing ford downstream could be modified with the addition of a concrete slab crossing.

The Bannu-Thal road will also be used as a main access road to link with the Mir Ali-Thal road and to provide transportation from Bannu to all the proposed facilities within Component I. Prior to the start of construction, the construction contractor will further assess and upgrade the Bannu-Thal road and bridges along the road to make them suitable for handling the design loads required to transport the heaviest piece of equipment used in the Project.

For both canals and the access roads it can be assumed that the construction crews will live in tents along the right-of-way, provided with food, water, fuel and other amenities from the central camp near the weir. For the tunnel, powerhouse, and ancillary structures of Powerhouses IV and V, site accommodations for construction crews of about 100 workers and supervisors will be required. Subcomponent 1.2 is scheduled to be implemented by WAPDA.

1.2.1.3 Subcomponent 1.3: Transmission lines

A new 25 miles long 132-kV transmission line is proposed to connect Powerhouse IV with the existing substation at Domail near Bannu, where power will be delivered into the national grid.

In addition a new 5.34 miles long 11-kV transmission line is needed connect the Powerhouse V switchyard with the Spaira Ragma Canal Pumping Station via the Kaitu Weir.

The distance between the towers is expected to be 200 ft for the 11 kV line and 5 towers per mile for the 132 kV line. The engineering design of subcomponent 1.3 has not developed beyond the feasibility stage. Subcomponent 1.3 is scheduled to be implemented by PEPCO.

1.2.1.4 Subcomponent 1.4: Spaira Ragma and Sheratalla Command Areas

Subcomponent 1.4, which should be implemented by the Irrigation Department of FATA hasn't matured beyond the feasibility stage: No detailed design is available for the tertiary canals, no land development and allocation strategy has been defined nor have any project plans developed.

1.2.2 Construction Phase and Schedule

It is expected that construction of Component I will take about 3 years, but this would require that the three implementing agencies (WAPDA, PEPCO and FATA Department for Irrigation) work hand in glove to assure for example that the secondary canals deliver water where it can be linked into tertiary canals most effectively.

Figure I-2: Construction Schedule for Component I

Activities	Period of Construction								
	Year 1			Year 2			Year 3		
Construction and Housing Camps	■	■							
Roads, Bridges and Culverts	■	■	■						
Kaitu Weir									
Excavation and preparation of weir foundation		■	■						
Construction of weir and drainage systems			■	■	■				
Construction of undersluices		■	■						
Construction of head regulators			■	■					
Construction of silt excluder		■	■	■	■				
Construction of feeder tunnel		■	■	■	■	■			
Construction of Spaira Ragha Canal									
Construction of primary canal			■	■	■	■			
Construction of secondary canals					■	■	■	■	
Construction of tertiary canals						■	■	■	■
Construction of Sheratalla Canal									
Construction of primary canal				■	■	■	■	■	
Construction of secondary canals					■	■	■	■	■
Construction of tertiary canals						■	■	■	■
Powerhouse IV & V									
Construction of powerhouses (civil works)				■	■	■	■	■	
Installation, testing and commissioning of electromechanical equipment							■	■	■
Transmission lines						■	■	■	■
Development of Command Areas									
Development of Spaira Ragha Command Area		■	■	■	■	■	■	■	■
Development of Sheratalla Command Area			■	■	■	■	■	■	■

I.2.3 Operations and Decommissioning

Presently no operations philosophy and/or management plan has been developed and it is therefore unclear how water resources will be managed to strike a balance between the three main interest groups: a) WAPDA for Hydropower Generation, b) people using land in the Spaira Ragha and Sheratalla Command Areas and c) downstream users of water resources in and around Datta Khel. Please consult the EA and EMMP that develop estimates of "environmental and ecological flows" to ensure sustainable water allocations.

Similarly, no decommissioning strategy has been developed to inform what happens during or after decommissioning to the resources and assets established by Component I. However, large dams and reservoirs usually remain in operation. In addition to the regular annual maintenance activities, major rehabilitation or upgrades would occur at different time intervals to maintain the integrity and stability of civil works structures and efficiency of equipment.

In the unlikely case that it is decided that the dam or weir should be removed, a detailed decommissioning plan would need to be prepared as this would include the disposal of sediment deposit upstream of the dam or weirs. Decommissioning a project of this magnitude would require as much planning as the construction of the project in the first place, and major consultation with all affected stakeholders. A future decommissioning plan would have to include measures to ensure sustainability of livelihoods after decommissioning.

I.3 Land needs of Component I

Table I-6 below informs about the overall footprint as well as how much of each type of land will be affected. 96 percent of the total land needed is dedicated for the establishment of the two Command Areas. 58 percent of the land is undeveloped (Worsho), 37.5 percent is agricultural land, 3 percent water and 1.5 percent residential land.

Package	Affected land and land use (acres)				
	Total	Agricultural	Residential	Water	Worsho

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Kaitu weir with other permanent facilities	3.5	0.0	0.0	3.2	0.3
Kaitu reservoir	45.2	16.5	0.0	27.2	1.6
Construction camp, quarry etc. (temporary facilities)	10.0	2.0	0.0	0.0	8.0
Subtotal : Subcomponent I.1	58.7	18.5	0.0	30.3	9.9
Mains and secondary canals of the Spaira Ragha Plains	78.7	33.6	0.1	0.5	44.4
Mains and secondary canals of the Sheratalla Plains	319.2	79.5	2.5	8.3	229.0
New 12 mile road from Spinwam to Spaira Ragha	129.0	12.9	1.2	2.7	112.1
Access road to power house 4	1.1	0.5	0.0	0.0	0.5
Access road to power house 5	2.3	0.0	0.0	0.0	2.3
Power house 4 at the Kurram + Transfer canal and tunnel	24.0	0.0	0.0	0.5	23.3
Pumphouse for lift canal, housing, support/security staff.	0.6	0.0	0.0	0.0	0.6
Power house 5	0.1	0.0	0.0	0.0	0.1
Subtotal: Subcomponent I.2	554.9	126.5	3.8	12.0	412.4
Transmission lines from Power House 4 to Domail	302.4	67.8	3.3	28.0	203.3
Transmission line from weir to pump house for lift canal	4.8	0.5	0.2	0.0	4.1
Transmission lines from Power house 5 to weir	28.4	5.7	0.0	0.0	22.7
Subtotal: Subcomponent I.3	335.6	74.0	3.6	28.0	230.1
Command Area in the Spaira Ragha plains	4,302	2,668	4	42	1,588
Command area in the Sheratalla Plains	18,427	5,983	309	573	11,561
Subtotal: Subcomponent I.4	22,729	8,651	313	616	13,149
Component I Total	23,679	8,870	320	686	13,802

I.4 Objectives Governing KTMDP's land Acquisition Process

The impoverishment risks associated with land acquisition and resettlement of large infrastructure projects such as KTDP are significant. In order to avoid and mitigate these risks, as well as manage associated operational risks, KTDP's land acquisition and resettlement process is guided by the following principles:

- Involuntary resettlement and land acquisition shall be avoided where feasible, and, where unavoidable, minimized to the fullest extent possible, exploring all viable alternatives;
- Where physical and economic displacement is unavoidable, resettlement and compensation activities shall be conceived and executed as sustainable development programs, providing sufficient investment resources and provide the affected people with the opportunity to share project benefits;
- Affected people shall be meaningfully consulted and shall have opportunities to participate in planning and implementing resettlement and compensation programs. Where segments of the population are effectively disenfranchised in one way or another (e.g., women, vulnerable tribes), special efforts will be made to incorporate their views into the planning process;
- Compensation will be paid to the individual concerned and effected in a timely fashion; no civil works will commence until resettlement compensation has been independently certified as completed to the fullest extent possible; and
- Project affected people will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or levels prevailing prior to the beginning of the project implementation, whichever is higher.

For KTDP "Project Affected People" (PAP) refers to people who are affected socially and economically by the involuntary taking of land and other assets resulting in:

- a. Relocation or loss of shelter;
- b. Loss of assets or access to assets; and,
- c. Loss of income sources or means of livelihood, whether or not the affected persons must move to another location⁴.

⁴ Downstream economic impacts are conventionally covered under the Environmental Management Plan.

These principles apply to all land acquisitions of KTDP, whether or not they are funded in whole or in part by any bilateral agency such as USAID or a multilateral financial institution such as the World Bank or the Asian Development Bank. Further, these principles apply to all affected persons regardless of their number, the severity of impacts and whether or not they have legal title to land and assets. Particular attention will be paid to the needs of vulnerable groups especially those below the poverty line, the landless, the elderly, women, children and people living in the FATA.

To ensure compliance with these principles, KTDP will:

- Carry out land acquisition, resettlement and compensation in compliance with the laws of Pakistan and the World Bank's OP 4.12;
- Apply the more rigorous standard, where national requirements in Pakistan differ from international standards and guidelines (OP 4.12);
- Prepare and implement individual resettlement plans for each component, with later addenda when the engineering plans for the entire investment are yet to be fully developed;
- Provide compensation, allowances, and benefits to all people being found to be affected at the Cut-Off Date (at the time of the census for the RAP of the specific component);
- Provide compensation, allowances, and/or livelihood restoration to both permanent as temporary impacts and assure that compensation is disbursed before land is taken;
- Engage PAPs and hosts into the planning and implementation process;
- Pay particular attention to vulnerable tribes(see Vulnerable Tribes Plan) and other vulnerable peoples;
- Compensate for residential houses in kind (resettlement house of better standard), or, if in cash, based on the full replacement value;
- Establish resettlement sites, new homes, related infrastructure, public services in close consultation with the PAPs, and pay all compensations before the commencement of civil works;
- Seek to improve or at least restore affected livelihoods;
- Monitor, evaluate and report implementation and outcomes; and
- Implement an effective and responsive grievance mechanism.

1.5 Maturity of Project Development and RAP

The level of advancement of engineering design for Component I is at present highly variable. So the estimates of probable impact are correspondingly variable. In the best case, the design of the Kaitu Weir and reservoir (Subcomponent 1.1) is quite advanced (80 percent), so assessments of land take and social impacts are quite reliable. Meanwhile the designs for the canals, roads, and power infrastructure (Subcomponent 1.2) are relatively less advanced (60 percent). Therefore, the impacts here can be estimated reasonably but not with certitude. In turn, the present design of the transmission lines (Subcomponent 1.3) is relatively preliminary (30 percent) and remains mostly at feasibility stage as the detailed design will need to be done by the implementing agency i.e. PEPCO. Finally, the designs of tertiary canals in the two Component I Command Areas (Subcomponent 1.4) are not yet available. This work will be carried out at a later date by the FATA Department of Irrigation. Nonetheless, the footprints of the perimeters are known, so it is possible to count the number of households who may be affected. However, without the final engineering designs, Command Area development plans, land allocation strategies and land exchange formulae (how much irrigated land a farmer obtains in exchange for one acre of non-irrigated land), it is impossible to determine the precise extent of physical and economic displacement. Thus, whether any of the 623 compounds in the two Command Areas can stay, or conversely the number of households who will have to be resettled, can only be determined once the final engineering designs are available. Similarly, detailed design of the linear infrastructure (e.g., roads, canals, transmission lines) could eliminate potential impacts on most if not all of the 48 compounds through judicious choice of alignments, but the precise numbers cannot be known until the design work is finalized.

This RAP therefore uses a phased approach so that the entire project area is covered in the RAP with the level of detail that is currently possible. The following paragraph describes the levels of engineering design and RAP development for each subcomponent:

Subcomponent 1.1: Kaitu Weir, reservoir and associated facilities

- Level of Engineering Design: Detailed Design.
- Level of RAP Development: All impacted households interviewed, severity of impacts assessed and appropriate remedial measures established (compensation and livelihood restoration).

Subcomponent 1.2: Canals, Roads and Powerhouses

- Level of Engineering Design: Powerhouses: Detailed design; Canals: Detailed design with ongoing field verification; Roads: Detailed design without field verification.
- Level of RAP Development:
 1. Powerhouses: Severity of impacts assessed and appropriate remedial measures established (cash compensation for undeveloped land);
 2. Canals: less detail based on assumption that either potential impacts can be avoided during detailed design or houses shifted back to avoid potential impacts (no resettlement site) and that consequently alignment of canals will be adjusted; severity of potential impacts assessed and appropriate remedial measures established (compensation and livelihood restoration);
 3. Roads: less detailed based on assumption that potential impacts can be avoided during detailed design to avoid potential impacts (no resettlement site) and that consequently alignment of roads will be adjusted; severity of potential impacts assessed and appropriate remedial measures established (compensation and livelihood restoration).

Subcomponent 1.3: Transmission lines (Implemented by PEPCO) and Subcomponent 1.4: Command Areas (Implemented by FATA Dept. of Irrigation)

- Level of Engineering Design: Feasibility stage and therefore rather uncertain whether farms and houses in corridor of transmission line and houses in the Command Areas are affected or not. There is no land allocation strategy. Furthermore it is uncertain whether and how existing farms in the Command Area will be replaced by new farms.
- Level of RAP Development: Estimates based on sample surveys. Livelihood restoration program for loss of farmland: all families losing fields will be provided irrigated plots and training in how to use irrigated land properly.

In sum, while the RAP Section for Subcomponent 1.1 is ready for implementation the RAP Sections for Subcomponent 1.2, 1.3 and 1.4 will need some fine tuning through an addendum (or addenda) when final engineering designs are available. It should be noted that in line with the RPF and international standards this, as well as the payment of compensation, must be carried out before the commencement of civil works. To accommodate the phased approach the following sections are divided accordingly.

1.6 Reference Documents

The most important guiding document for this RAP is the RPF of the KTDP that provides overall guidance on land acquisition and resettlement issues of the KTDP.

Impacts on downstream populations are assessed and addressed in line with international standards in the Environmental Assessment and potential remedial measures elaborated in the Environmental Management and Monitoring Plan. The subject of downstream water users is further discussed in the Vulnerable Tribes Plan.

The Vulnerable Tribes Plan further informs about the socio-cultural setting as well as the history of the Wazirs that are the affected people of Component I and defines strategies and measures to assure that their rights, culture and distinctness are respected.

For issues related to cultural heritages that are older than 100 years (i.e. established before 1913) please consult further the Cultural Heritage Preservation Plan for the KTDP.

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2 SOCIO-ECONOMIC BASELINE

The total number of people within the footprint of Component I is estimated to be around 150,000 (Table 2-1). The annual population growth rate in North Waziristan is estimated to be 2.5 percent per year.

Table 2-1: Demography of the KTDP Areas

Area of Impact	Population (2013) ⁵
Mir Ali Tehsil North Waziristan	122,123
Spinwam Tehsil North Waziristan	30,604
Component 1	152,727
Component 2	34,825
Component 3	516,562
Total	704,113

2.1 Livelihoods

The entire project area of Component I is rural (Table 2-2:), with Mir Ali, which has a population of about 15,000, being the only large settlement. According to the Multi-Donor' "Pakistan Poverty Alleviation Fund", North Waziristan is among the poorest of the 145 districts in Pakistan with the lowest Human Development and Food Security Index.

Table 2-2: Economic Activities in the KTDP Areas

Category	North Waziristan	F.R. Bannu	Bannu	Lakki Marwat	Karak
Rural Population	98%	100%	93%	90%	94%
Employment	<10 %	25.9%	29.6%	25.8%	22.4%
Average size of agric. Land/household (acres)	0.83	1.1	2.44	1.79	2.03
Households having < 1 acre of agric land	35%	5%	36%	5%	2%
Households having 1-5 acres of agric land	59%	44%	47%	39%	70%
Road Network (miles per square miles of area)	0.04	0.08	0.51	0.12	0.29
Literacy Ratio (10 +)	10.63%	9.71%	32.11%	29.70%	41.90%

While traditionally the local Wazir were transhumant, their separation from the settled areas as well as from the mountain ranges in Afghanistan, further aggravated by the long standing conflicts within the region, has turned most Wazir into resident farmers with very limited landholdings. Due to the rugged nature of the terrain with a very limited road network and the extremely low level of literacy (under 10 percent) little employment is available. In addition, significant numbers of people migrate as seasonal laborers to other parts of Pakistan or abroad. One of the economic activities many Wazirs are involved in the region is working as truck drivers or other jobs in the transport sector.

Those who stay, practice rain-fed agriculture on very small plots that are on average only one-sixth of what is available to households in other parts of Pakistan and less than half of what is available to the people in the settled areas nearby. Each household has on average three plots with a total surface area of around one acre. Most of the land is farmed by peasant owners. There are very few landlords who cultivate fields with farm laborers and/or tenants. Most of the work is done by the adult men. Relatively few women and children below the age of 12 reportedly work in agriculture

⁵ All data in this report, if not indicated otherwise, are from the 1998 Census and subsequent updates and/or the Agricultural Census 2000 and 2010 all done by the Pakistan Bureau of Statistics (<http://www.pbs.gov.pk/>) and the Bureau of Statistics of the Khyber Pakhtunkhwa Province that also covers FATA (<http://www.khyberpakhtunkhwa.gov.pk/Departments/BOS/>). The most detailed report is the Agency Census Report: North Waziristan 2000. The population figures here are the data presented in the census for the second lowest level of disaggregation presented in the Census (Tehsil). The projection from 1998 to 2013 follows the projection provided by the FATA data available through the Bureau of Statistics of the KP Province.

(around 5 percent each). The low participation rate of women in agriculture is partly due to the cultural pattern that adult women below 40 years of age are generally not allowed to leave the compound without a male escort.

Agricultural production is almost exclusively for family consumption. Wheat is the dominant Rabi crop, and maize the main Kharif crop. Other common crops are rice, sugarcane and barley. Less than 10 percent of the production is marketed. Around 10 percent of the farms also have perennial crops: apricot, plums, dates, grapes, pomegranates, mulberry, malta, guavas, peaches, walnuts and lemons. Finally, nearly every household has chickens, goats and sheep, as well as a few large animals such as oxen, buffaloes, mules, camels and horses.

While there are a large number of studies on the livelihoods in North Waziristan, very few are based on actual field research. One of the few exceptions is the 1963 study "Some Land Problems in Tribal Areas of West Pakistan" by Khalid Ashraf.⁶ This study provides insight into land use and land use patterns in 14 settlements of North Waziristan based on 100 in-depth household interviews and a survey of 76 farms. In 1963, 24 percent of the sampled households were landless laborers, pastoralists or for other occupations not based on land (traders, etc.). The average farm size among households with farmland was calculated to be around 3 acres and had to feed on average 6.4 people i.e. 0.5 acre/person. The fact that the figure of available farmland per household in 2013 is significantly lower (less than 1 acre per household) indicates that while the population is growing relatively quickly at 2.5 percent per year on average, no additional land has become available over the last 50 years. Similar to today, 50 years ago most of the farm labor was done by adult men, while the involvement of women and children below the age of 12 was reported to be rather minor (around 5 percent each).

In 1963, the main purpose of farming was for household consumption, and wheat was the most prominent crop (36 percent of the surveyed farms), with maize, rice and barley following covering each around 20 percent of the cultivated lands. The productivity itself was rather poor with 451 kg/acre for wheat, 389 kg/acre for barley, 882 kg/acre for rice and 540 kg/acres for maize. Only 6 percent of the wheat, 12 percent of the barley and 2.4 percent of the maize were marketed, and all of the rice produced by families was consumed by the households. Thirteen percent of the farms also contained permanent crops: plums, grapes, pomegranates, mulberry, malta, guavas, peaches, apricots, walnuts and lemons. With a view on livestock more than two-thirds of the farmers had oxen and chickens, around 40 percent goats and sheep, and around 20 percent buffaloes and donkeys. Camels and horses were rare.

When compared with today, it becomes obvious that the Wazir of North Waziristan have not benefited from improved agriculture, as have other regions of Pakistan where yields have gone up significantly. Based on the available agricultural data, yields of the main crops in 2012 are on average only 2 percent above the yields of 50 years ago in the project area. One of the underlying reasons is the absence of effective and efficient irrigation systems and modern farming techniques. While the yields have not increased, the farmland available for each Wazir household has decreased over the last 50 years due to an annual population growth of 2.5 per cent from 3 acres per household in 1963 to less than 1 acre per household in 2012, while at the same time the size of households have increased from 6.4 to 9.1 people per household. This means that with a view on agricultural land available per person, the Wazirs have experienced a reduction from around 0.5 acres per person to about 0.1 acres per person over the last 50 years; i.e. a significant impoverishment.

⁶ Ashraf, Khalid, 1963. Some Land Problems in Tribal Areas of West Pakistan: A Study of the selected farms in Kurram, North Waziristan, Malakand, Kalam and Swat; Peshawar: Peshawar University; The Board of Economic Enquiry; Publication No 12 Tribal Area Studies 2.

2.2 Land Administration

While other parts of Pakistan and some other parts of North Waziristan have a well-developed system of land registration, no such system exists in the project area in North Waziristan. The system used in these tribal areas is rather simple. Within the overall territory of the tribe, today basically defined by the boundaries of North Waziristan and FR Bannu, the various clans have established through negotiations and/or warfare separate territories as shown in the maps 4 and 5 that are more or less respected by their neighbors. Within these territories, all land is customarily owned by the entire clan, but all farmland and residential plots have been used for generations by specific quams (extended household) and/or households. These hold “permanent user rights” that are inherited from generation to generation (i.e. from the father to the sons as women are traditionally not entitled to own land). Additional land (“worsho” i.e. undeveloped land) can be requested from the clan, but needs to be developed by the household as only developed and used land is owned by households. If for whatever reason land is not used over a longer period or abandoned, it reverts back to the clan. This does not apply if land is left fallow to regenerate for a year or two.

In sum, residential and farmland is de facto owned by the households and de jure by the clans, while non-developed land, water, and other natural resources are owned and managed by the clans through the jirga system i.e. by consensus. While the de-facto system is rather straightforward, it was not recognized by the Government of Pakistan until 2011. In turn, the Government considered the clans represented by the maliks as owners. This meant that compensation monies, whether for undeveloped land, farmland, residential land or houses, were disbursed to the maliks. In some cases this provided the grounds for severe conflicts and fatalities as quite some money seems to have gone missing. In reaction and based on advice from the World Bank, the Asian Development Bank and USAID, compensation for residential land, houses and farmland is now directly disbursed to the households while the clan receives compensation for all undeveloped land.

2.3 Settlement Patterns

Settlement patterns vary significantly across the region and further underscore the distinctness of the Wazirs. While they live in fortresses with high walls around their compounds and guard towers, the people in the Bannu plains live in agricultural villages along roads and waterways.

Table 2-3: Settlement Patterns in the KTDP Area

Category	North Waziristan	F.R. Bannu	Bannu	Lakki Marwat	Karak
Main Ethnic Group	Wazir	Wazir	Bannuchi	Mattizai	Khattak
Population Density (person per square mile)	260	86	1,430	400	330
Urban Population	2 %	0 %	7 %	10 %	7 %
Rural Population	98 %	100 %	93 %	90 %	93 %
Average Household Size	9.1	9.6	9.7	9.2	10
Average number of rooms per housing unit	3.3	3.5	3.3	2.7	3.3
Pacca (Baked Brick) Housing Units	14 %	34 %	26 %	15 %	54 %

Traditionally, the Wazir live in walled compounds inhabited by one or more families, which normally each have a house or cluster of houses. While in the western part of North Waziristan, these houses are within compounds (kot) with walls of mud and/or stones that are often three to five meters high and have often a guard tower in the center that allows defense the kot against all enemies. Towards the East the houses look less like fortresses and more like clusters despite the fact that each house has a wall around it. Depending on the surroundings, walled enclosures of the kots can include an area of 2,500 to 20,000 square feet. Many compounds contain fruit trees or other trees maintained for shade. A small truck garden may also be found inside the compound. Separate dwellings for the family of the owner and those of grown sons are found inside the walls of the compound. A separate compound may be provided for livestock outside the main compound. Less wealthy families construct their livestock compounds using thorny branches within the main compound. In areas

where agricultural land and water is easily available, the compounds are clustered in villages of up to several hundred compounds but in less hospitable areas they are more widely separated.



Plate 2-1: Settlement in the project area with clearly visible kots

As shown in Table 2-3 around 14 percent of the houses are built using baked bricks, blocks or stones (“pacca”), 84 percent using unbaked bricks or bounded earth and the remaining 2 percent using wood or bamboo. Within the compounds 75 percent of the houses have separate kitchens, 76 percent separate bathrooms and around one-third have separate latrines.

In the larger villages such as Spinwam and Mir Ali, compounds are densely clustered, with narrow walkways or streets separating them. Two compounds frequently share a common wall. The larger villages are provided with primary and secondary schools, mosques and usually a basic medical unit. For example, Mir Ali, a town of 15,000 inhabitants, consists of a nuclear cluster of residential and commercial buildings, among which are markets, pharmacies, vehicle repair facilities and numerous smaller businesses. Every section of a village has a masjid and a common sitting area for the jirgas. In most settlements, one of the compounds also has a small private guest house that is open to visitors of the clan.



Plate 2-2: The inside a local compound

Ninety-four percent of the houses are owned by the people living in them. Three percent are rented, and three per cent are provided rent-free. Due to conflict and economic problems, there has been very little new construction in the last 10 years, and around 75 percent of the houses are at least 10 years old.

2.4 Health Conditions and Health Infrastructure

According to health officials⁷, the following diseases are common in the areas of North Waziristan affected by the KTDP:

- Heavy prevalence of cutaneous leishmaniasis (CL) subsequent to the influx of Afghan refugees to the area in the 1980s. Leishmaniasis is a vector-borne disease caused by a species of sand-fly (*Phlebotomus*). NGOs are involved in diagnosis and treatment of CL, but there is currently a shortage of medication. The focus of CL seems to be North Waziristan with 1,760 cases in 2012.
- The prevalence of diphtheria in children has increased in recent years, probably due to the reduced immunization status of children resulting from the predominantly negative attitude towards health campaigns in recent years.
- Significantly high incidence rate of polio as a result of the negative attitude towards polio oral drop campaigns in recent years. Fatalities have been reported from polio teams in various parts of the FATA.
- Malaria is generally not a problem and only occurs in extremely rainy years. Malaria is not a natural disease in the dry arid project area. In 2013 there were heavy rains in all over Pakistan and chances of malaria increased nationally including the project area.
- Low personal hygiene status occurs as a result of the population's poverty and their custom of keeping their cattle and other animals in their houses. Typically, there are no indoor toilets, resulting in a high incidence rate of water-borne diseases such as diarrhea, dysentery, typhoid and hepatitis A, D, and E.
- There is a high incidence rate of trachoma in North Waziristan compared to other parts of Pakistan that might be attributable to poor hygiene and the custom of keeping livestock in their dwelling areas.
- There is an increase in the number of TB cases. The health professionals interviewed attribute this to stigma and to the restrictive attitude toward female patient diagnosis and treatment that prevails in the local society.
- The prevalence of HIV AIDS is low.

The most prevalent diseases diagnosed in the project area for the years 2011 and 2012 were:

- Diarrhea/dysentery.
- Depression.
- Acute upper respiratory infections.
- Pneumonia.
- Enteric/typhoid fever.
- Peptic ulcer diseases.
- Scabies.

The immunity status against common diseases is low as there is a growing resistance against all health and immunization campaigns. As a result, the following diseases are on the increase:

- Poliomyelitis.
- Neonatal tetanus.
- Measles.
- Diphtheria.
- Pertussis (whooping cough).
- Hepatitis-B.
- Pneumonia & meningitis.
- Childhood tuberculosis.

The key challenge on the preventive side seems to be access to purified drinking water and the chance to see a physician: While the national average is 0.6 physicians per 1,000 people, the figures in

⁷ FATA Secretariat (Peshawar), District Health Office (Bannu), Directorate of Malaria Control Pakistan (Islamabad), Provincial AIDS Control Program (Lahore), District TB Coordinator (Lahore).

North Waziristan as shown in the table are significant lower, as is the access to purified drinking water.

Table 2-4: Medical Facilities in the KTDP Areas

Category	North Waziristan	F.R. Bannu	Bannu	Lakki Marwat	Karak
Housing Units having Piped Water	14 %	25 %	43 %	39 %	22 %
Drinking Water Coverage	64 %	62 %	86 %	77 %	71 %
Number of physicians per 1,000 people	0.3	0.4	0.3	0.3	0.4
Number of hospital beds per 1,000 people	0.7	0.7	0.8	0.3	0.7

In North Waziristan there are nine hospitals with 330 beds, as well as a number of health centers which offer in total coverage just below the national average of 0.8 beds per 1,000 peoples. The key issue here is that these government facilities are understaffed and 22 percent of the positions are not filled. The situation for female medical officers is even more serious: only 21 of the 48 positions are filled.

Cultural restrictions discourage women from going out publicly and forbid consulting male doctors, even when female doctors are in short supply and the illness is serious. The same restrictions apply to female children, who are generally subject to the usual childhood ailments but may not even be allowed to be vaccinated. Therefore, preventive measures are of particularly important. About two-thirds of the families have access to drinking water, which is rather low. Only 14 percent of the compounds have in-house access to water, which is an extremely low rate of coverage. In addition, there are indications that drinking water is insufficiently purified.

2.5 Education

The literacy level in North Waziristan is very low, and women are significantly disadvantaged. The government runs four basic levels of education: primary schools, secondary schools, high schools, and elementary colleges. Boys and girls are separated. All of the schools, but those of girls especially, suffer from difficulties of access, shortages of teachers, underpayment of teachers, absenteeism of teachers, and lack of teaching aids. The parents of girls frequently fail to send their daughters to school, for various reasons. There is an attitude that girls do not need education to be wives and that being educated may reduce their eligibility for marriage. There is also a fear that when girls get older they will be assaulted on the road to and from school. Further, corporal punishment, practiced by most teachers, deters girls from wanting to go to school. For boys, on the other hand, education is valued. A family of limited resources may have to choose between sending a son or a daughter to school and will invariably send a son.

Table 2-5: Literacy in the KTDP Areas

Category	North Waziristan	F.R. Bannu	Bannu	Lakki Marwat	Karak
Literacy Ratio (10 +)	10.6 %	9.7 %	32.1 %	29.7 %	41.9 %
Male	30%	17 %	50.8 %	50.3 %	68.2 %
Female	1.2%	0.6 %	12.2 %	8.6 %	18.1 %

2.6 Fuel Sources, Access to Water, Sanitation and Waste Management

According to data from 2009, 60 percent of houses possess electricity for lighting, while 40 percent rely on kerosene. Ninety-four percent of households rely on wood for cooking; hardly anybody uses gas. The reliance on open stoves causes severe indoor air pollution and the attendant respiratory problems, as well as increasing fuel wood consumption in areas that are already widely deforested. Most wood in the area is burned without conversion to charcoal and therefore not used very efficiently. Information on domestic water suggests that 14 percent have indoor pipes, 31 percent indoor wells (dug or drilled) and 11 percent outside wells, while the remaining 44 percent rely on "other"

sources, which may be presumed to be local rivers or nullahs. Women and children of the household are responsible for obtaining water.

Thirty-seven percent of the compounds in the project region were reported to have latrines, seven percent shared latrines with other compounds, and 56 percent reported having no latrines. In those with no latrines, residents defecate and urinate in the vegetation outside the compound.

Waste management is unheard of and waste is mostly deposited in the riverbeds in the hope that the next rain will wash it away.

Table 2-6: Fuel Use in the KTDP Areas

Category	North Waziristan	F.R. Bannu	Bannu	Lakki Marwat	Karak
Housing Units having Electricity	60 %	28 %	94 %	87 %	81 %
Housing Units having Piped Water	14 %	25 %	43 %	39 %	22 %
Housing Units using Gas for Cooking	0.1 %	0.6 %	3.0 %	3.2 %	0.7 %
Drinking Water Coverage	64 %	61 %	86 %	77 %	71 %
No latrine	56 %	55 %	46 %	78 %	80 %

2.7 Physical Cultural and Historic Resources

The region is rich in cultural heritage. Research suggests that the Bannu plain as well as the Kurram and Kaitu Valleys have been inhabited since the Upper Paleolithic Period (50,000-10,000 BCE). Due to limited accessibility hardly any serious archaeological work has been conducted in the project region with three exceptions: a) Sir Aurel Stein, who conducted rapid archaeological surveys in 1904 and 1927 and b) some follow up excavation by Hassan Dani in the 1960s. While “the known antiquarian remains ... are scanty, ... it appears ... highly probable that the route which leads through the Kurram Valley must, owing to the great natural facilities it offers for communication between Kabul and the central part of the Indus Valley, have been one of considerable commercial and political importance in ancient times” (Stein 1905:7).⁸

There are strong indications that the area has a high potential for historical remains. Three “Tochi inscriptions”, which are on display in the Peshawar Museum, were found in the vicinity of Spinwam. These stones display a combination of Arabic, Sanskrit and Bactrian texts and have been dated to the mid-9th century CE. This combination of texts can also be observed in findings from the Sheratalla and Spaira Raghā Plains. This type of finding suggests that the area of Component I was once the boundary between the three dominant cultures in the region and therefore might contain important cultural heritage sites.

It is well documented that since time immemorial the Kurram Valley has been one of the easiest connections between the Indus Valley and the Afghan Highlands and therefore exposed to trade and cultural exchange. It is therefore very likely that the land along the Kurram still contains many cultural heritage sites, which might be important if they document how the conflicting cultures in the region interacted without permanent conflicts. For more details please consult the KTDP Cultural Heritage Preservation Plan.

2.8 Security issues

In particular the area around Mir Ali (see Map 4-2) is exposed to security challenges from the Tehrik-i-Taliban Pakistan (TTP), the groups around Halim Khan Daur, Rasool Khan Daur, Maulana Manzoor Daur, Haq Nawaz Daur as well as a significant number of Uzbek militants (Islamic Jihad Union), smaller numbers of al-Qaeda operatives of Arab, Chechen, Uighur and Turk origin and finally a good number of “retired” jihadists.

⁸ Stein, M.A.; 1905; Report of Archaeological Survey Work in the North-West Frontier Province and Baluchistan for the Period from January 2nd, 1904, to March 31st, 1905; Peshawar: NWFP Government Press



Figure 2-1: Security situation in North Waziristan

3 LEGAL FRAMEWORK

3.1 Legal and Regulatory Framework in Pakistan

Private property is protected in Pakistan through the Constitution of 1973, which rules that “every citizen shall have the right to acquire, hold and dispose property No property shall be compulsorily acquired or taken possession of save for a public purpose,⁹ 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” (Constitution of Pakistan 1973; Article 23-24).

This power to expropriate private properties for public purposes vested on the government through the Constitution is implemented through the Land Acquisition Act 1894 (LAA). While it defines detailed procedures for the expropriation process, it is inevitable that this 120 year old legislation does not fully address the economic, administrative, environmental or social realities of Pakistan in 2013 and for example does not cover the resettlement and rehabilitation of physically and/or economically displaced people, among other issues.

While the LAA guides the land acquisition process in Pakistan, it needs to be noted that the Constitution of Pakistan rules that unless specifically enacted by the President, the laws of Pakistan (including the LAA) do not apply to the FATA, which includes the Frontier Region Bannu and North Waziristan (Constitution 1973; Article 246b). This means that all project land located in the Districts Bannu, Lakki Marwat and Karak (basically Component 3 plus minor parts of the access roads and the transmission line of Components 1 and 2) would be acquired through the process outlined in the LAA and other relevant legislation in Pakistan, while land located in the FATA (Components 1 and 2 with the exception of minor parts of the access roads and transmission line) would be acquired under the national framework in accordance with the land acquisition legislation applicable in the FATA.

3.1.1 Land acquisition in the Districts Bannu, Lakki Marwat and Karak

The acquisition of land and easement for access roads, transmission lines, as well as canals and command area in the three districts Bannu, Lakki Marwat and Karak is governed under the national framework by the LAA and the TA.

The LAA defines “land” as land plus benefits arising from it plus all assets and resources attached to it and “person interested” as those who have rights and interests in this land (i.e. owners, sub-owners, tenants, mortgagees, leaseholders, easement holder). The focus of the LAA is procedural and covers taking of land for public purpose as well as for private investors.

The expropriation process starts by informing the public about the intent to expropriate land for a specific purpose. The public announcement provides also the Land Acquisition Collector (LAC) with the right to access and survey all land of interest without any additional permission, while to access a house and/or enclosure he needs to inform the occupier at least 7 days in advance. Based on these rights the LAC conducts a preliminary land survey in order to identify the “interested persons”. All damages caused by the survey need to be compensated immediately. Based on the survey results, a second public notice is issued, identifying the specific land plots to be expropriated and inviting all “interested persons” to voice objections within 30 days. After reviewing these objections, the LAC recommends actions to the Executive Revenue Officer of the Tehsil in question, which then decides to either enhance the documentation or to go ahead with the expropriation process.

⁹ Projects in the public purpose are according to the Constitution projects that have “the purpose of (i) providing education and medical aid to all ... (e) (ii) providing housing and public facilities and services such as roads, water supply, sewerage, gas and electric power to all ... (iii) providing maintenance to those who, on account of unemployment, sickness, infirmity or old age, are unable of maintain themselves” (Constitution 1973; Article 24).

In the next step, a “Declaration of Intended Acquisition” is published identifying the land plots to be expropriated as well as the reason for the expropriation. Based on this declaration, the LAC then demarcates the land to be expropriated, measures and values it, finalizes the identification of “interested people” and invites them through public notice to voice their claims/interests in the land and establish based on the available information a draft updated cadaster drawing. After that, the LAC organizes a meeting to verify the various claims and finalize the information gathering process on size, nature and value of the plot with all improvements and assets on it as well as the apportionment of the overall compensation to the “interested people” based on their verified claims. The meeting closes the fact finding process and entitles the LAC to update the cadaster with the new information, issue an award note and take possession of the “land”.

After the “land” had been formally taken, the “interested people” are invited to claim their share of the overall compensation. Any grievance against the expropriation process and/or the allocated compensation needs to be voiced through the legal system.

Compensation for “land”, including all improvements (houses) on it, is calculated as the average value declared in private acquisitions of similar lands nearby plus a markup of 15 percent. Informal improvements such as non-permitted houses are not compensated, while physically displaced people are provided with a transport allowance. In addition, damages on standing crops and other such assets are compensated at market value.

It needs to be noted that the LAA is a provincial law with different sets of standards and procedural steps most notable for the calculation and payment of compensations in each province. Besides the normal procedure outlined above, the LAA also contains, in article 17, an urgency provision that allows the immediate taking of land immediately and the taking of houses and other property two days after the first notification has been issued upon payment of an additional disturbance allowance.

For transmission lines, an even older legislation is used: The Telegraph Act (1885) covers, among other activities, the installation and maintenance of telegraph lines and poles and has been used ever since for transmission lines. The Act defines that neither land nor easement is needed for the installation of poles/towers on private property and therefore no compensation is paid. Similarly, while it is not permitted to construct houses underneath transmission lines, no easement is acquired and consequently no compensation paid. In short, those affected by a transmission line are only compensated for damages to standing crops, buildings and other assets during the construction period.

3.1.2 Land Acquisition and Land Use in North Waziristan and FR Bannu

As indicated before, the FR Bannu and North Waziristan are part of the FATA and legislated by a set of specific laws enacted by the President of Pakistan as well as written and unwritten customary laws.¹⁰ Until recent none of the formal laws applicable to the FATA contained any provision for expropriation of land, with the exception of land in the border region with Afghanistan. Land can therefore only be acquired through the provisions under the customary laws. Under customary law the tribes are the rightful owners of all lands and nobody has the right to take or use any of this land without the consent of the tribe owning this land. In practice this means that administrative developers (road department, department of education, WAPDA) task the political agent to come with the malik(s) of the affected tribe(s) to a negotiated settlement. A committee comprising the relevant tehsildar, malik(s) and village elders is then tasked to negotiate compensation rates for each of these entitlements. After an agreement is reached, under national projects the Political Agent is then tasked to disburse all entitlements in cash to the malik(s), who is then in charge of distributing it to the affected sub-tribes and households. As this general provision commonly created issues, projects financed by Multilateral Financial Institutions charge the Political Agent to disburse compensation for farmland and houses and allowance to each of the affected households and only

¹⁰ http://fata.gov.pk/index.php?option=com_content&view=article&id=192&Itemid=165

disburse the remaining compensation for grazing and barren land as well as community infrastructure to the malik(s).

The situation changed on 27 August 2011, when the President of Pakistan amended the Frontier Crimes Regulation (1901) through an Executive Order and added clause 56, which rules that now “no person shall be compulsorily deprived of his property unless he is paid adequate compensation with consensus rate or Government assessed value as in vogue in settled areas”. This means that land and easement can be expropriated in the FATA as long as compensation is paid. This means that under the national framework all project land in the FATA (Components 1 and 2 with the exception of minor parts of the access roads and transmission line) could be expropriated as long as compensation is paid.

As the Telegraph Act has been enacted for the FATA, land for the transmission towers as well as easement for roads and the transmission corridor could under the national legislation therefore be obtained through the Telegraph Act.

3.1.3 Land administration

The land administration system in Pakistan is very old. The Arthsastra is supposed to be the first work to mention the village officers known as Gopa that were responsible for preparation of various registers for the village fields, transfers, and due taxes. Attempt to reform the system was first made by Sher Shah Soori (1534-1545) whereby land was categorized, measured and a schedule of crop rates fixed. The system was reformed during the Mughal King Akbar reign (1556-1605) resulting in a regularized land record management system to define agricultural taxes on a rational basis. The subsequent colonial rule by the British then implemented the system on scientific lines whereby large scale cadastral surveys were conducted to demarcate the boundaries and extent of each individual landholding. Soil fertility was also classified to formulate and rationalize the levy and collection of land revenue from landholders of each and every village. The British set up an administrative hierarchy that is still used today: The country is divided into provinces, divisions, districts, Tehsil, Kanungo Circle, Patwar Circle and finally Mauzah/Village.

While there are parts of North Waziristan that have a land administration system, in the project region, the following system only exists in the Bannu, Karak and Lakki Marwat Districts, while for the Mir Ali Tehsil of North Waziristan and FR Bannu no land records exist at all and therefore presently no land tax is collected for these areas. While no plans whatsoever exist for the establishment of Command Areas in Component 1 and 3, it can be assumed that they will result in becoming part of the overall land administration system of Pakistan and therefore required to pay tax. While for the settled districts this is no change, it will be quite a difference for the people in the FATA for they have not had any exposure to tax authorities in the past.

The current land administration system in Pakistan aims at land revenue assessment and tax collection for the fiscal purposes. This system is organized or structured on the traditional land registers and cadastral maps in paper format, and their maintenance is mainly dependent on the hard work of the local land administrator, called the “patwari” at the grass-root level within his jurisdiction. Although, the local administrator reports all changes on land rights and boundaries of land parcels to higher-level government authorities, the maintenance and quality of the land registers and cadastral maps kept at national level are always questionable. Experience shows that limited accessibility to and reliability of these records have restricted the operational and legal usefulness for securing land ownership, as well as for carrying out the reliable planning and development activities.

The Board of Revenue (BOR) at provincial level is mandated with all matters connected with administration of the land, collection of land revenue, preparation of land records and land acquisition. The Chief Land Commissioner is responsible for recovery of government dues/ agricultural income tax, land revenue, water rate, ushr (religious tax), mutation fees, stamp duty, registration fee, copying fee, and arrears relating to banks, Agricultural Development Bank of

Pakistan and cooperatives. He frames the laws/rules/policies relating to the revenue matters and also provides guidelines for maintenance of record-of-rights, periodical record for use of the right-holders and revenue department. He also supervises revenue work of Commissioners, Deputy Commissioners, Assistant Commissioners and other officers/courts in the province. The Chief Settlement Commissioner is responsible for preparation and execution of policies for disposal of state land for different purposes such as agriculture purpose in rural areas, residential purpose in rural/urban areas, commercial, industrial, charitable and religious purposes.

There are several Laws that deal with the land, relationship between landlord and tenants, mortgagor and mortgagee, assessment and collection of land tax, agriculture income tax, local rates and that are to some extent relevant to the land acquisition required under KTMDP:

- Land Consolidation Act 1960: This Act aims provides the land administration with vast powers to take, consolidate and reshape land with the objective to increase yields and is commonly used for command area development. While formally requiring the consent of the majority of the affected landowners, the act provides vast discretion towards the administration to determine and declare that such consent exists and there are quite some examples where the “beneficiaries” were unsatisfied with the outcomes.
- Land Revenue Act 1967: This Act was passed during the social inspired land reform and deals with the issues of record of rights and land revenue.
- NWFP Tenancy Act 1887: This Act deals with the relationship of landlord and tenants regarding produce of land and ejection of tenants.
- Pre-Emption Act: This law has become operative by revenue department after promulgation of para-25 of the Martial law Regulation (MLR-115) in 1972 which has given the first right of pre-emption to a tenant. Normal cases of pre-emption of land are dealt with by the civil courts. The revenue courts entertain only those cases in which a tenant brings a pre-emption suit. Pre-emption laws give certain preferential rights to neighbors in matters of sale of land.
- Registration Act 1908: This act deals with the registration of various documents (including those relating to land) with registration authorities. Normally revenue officers (as detailed in Land Revenue Act 1967) are declared as registration authorities. Under this act various documents are executed and registered in the office of Sub-Registrar like sale deeds, mortgage deeds, lease deeds, power of attorneys, partnership deeds, and other deeds. Deeds are entered in the relevant registers after the documents are properly stamped, checked and duly witnessed.
- Transfer of Property Act 1982: This act deals with the transfer, sale/mortgages charges, leases exchanges, and actionable claims in respect of property.
- Land Reforms Act: The Land Reforms Laws have been introduced at various stages including the MLR-64 on 7.2.1959, MLR-115 on 12.3.1972 and Land Reforms Act: II on 5.1.1977. The main aim of these land reforms was to determine the individual holdings to a manageable size for improving the lot of peasantry. This act gives rights to ‘tenant in possession’ of a certain property. It is mostly ignored in the contemporary jurisdiction.

The most common documents and processes related to land administration are:

- Ownership Document: The document showing ownership of land is called the "Fard Malkiyat" and is prepared by the Patwari concerned or district office on payment of fee. It is created from the Haqdarar Zamin (Jammabandi) Register and the incorporations made through any mutation (Intiqal). It is essentially a copy of a particular part of the Haqdarar Zamin Register.
- Haqdarar Zamin Land Registration: Haqdarar Zamin formerly known as the Jammabandi Register is one of the most important documents of the record-of rights as well as the periodic record in the rural areas. It primarily shows the right holders of land including details on owner, cultivator, land, soil, and rent. It is created every four years for incorporating recent mutations (Intiqal) that have taken place since the last document was created from the previous Haqdarar Zamin (land owners) register.

- Fard Badar Error Correction: Whenever a clerical mistake is detected in current Jammabandi after it has been finally attested and filed, whether that mistake was originally made in that or any previous Jammabandi, the Patwari makes the necessary entries about it in the columns of the Fard Badar. The Fard Badar process is used for the purpose of avoiding the entry of a further mutation of inheritance in cases where in entering the original mutation some of the holdings of the deceased were inadvertently omitted.
 - Gardawari Binomial Inspection: Before every harvest season, Patwari makes a survey in his Patwar Circle called Gardawari. The purpose of Gardawari is to collect information about the matured cropped area under different crops sown by farmers in a Patwar Circle. Gardawari provides information about the date on which inspection of each harvest should begin, the kind of soil (Qism Zamin), type of crop (Jins) sown, and the area sown (Raqba Kashta) with reference to the Khasra number (parcel identification number).
 - Mutation Process: A mutation is a change in the agricultural land records. There are various types of mutations with different transaction characteristics. The mutation process is a process with many checks and balances. In mutation process, an oral report or application for mutation in writing is made to the Patwari. The key persons involved in mutation process are Patwari, Gardawar / Kanungo, and Tehsildar or Naib Tehsildar (Revenue Officer). Changes in the recorded rights and interest are managed at the Patwar level. There are various types of mutations such as sale, gift, mortgaging, lease, and subdivision, and devolution of land.

The land record data is maintained at Tehsil offices whereby record sets are developed at the time of settlement. For maintenance of records, the Patwari has to maintain the following maps and registers:

- Field Map: A cadastral map of a village called 'Mussavi' and shows all the fields, duly measured and numbered in a village. This is basically a surveyed paper map at different scales depending upon village area, normally at a scale of 1"=40 Karam (about 1:2500 scale or so according to parcel sizes in the village). The yard-stick of measuring a field is called Karam which is 5.5 feet in length. Land parcels are labeled with their Khasra Number (parcel identification number) and dimension of each side. Each Khasra Number is owned by an owner. Mussavi is developed at the time of settlement. No changes can be made in this record-set till next settlement which is normally carried out after every 30-35 years. Subdivision lines break up an irregular land parcel in different regular geometrical shapes. The subdivision lines are generally represented with dotted line and defined for the area calculation on the map.
- Field Book: This contains the details of measurement of each field e.g. its length, breadth, diagonal detail, and worked out total area.
- Shajra Kishtwar: All the Mussavis of a village are drawn up conjointly on a cloth (Lattha) for day-to-day use by the Patwari which is called Shajra Kishtwar.
- Register Haqdar-e-Zamin (Jammabandi): This is the most important register containing necessary particulars about ownership, tenancy, khasra number and its classification, source of irrigation, land revenue, and Rent (Lagan).
- Register of Mutations: It contains particulars of all transactions which are entered by the Patwari and decided by the Revenue Officer.
- Register Khasra Girdawari: This register contains details of the inspection of crop grown in each field in each harvest and all changes of ownership and tenancy. It is a track record of the possession of a particular patch of land which helps to resolve issues relating to ownership of that patch.
- Lal Kitab (Village Note Book): This book has details about statistics of a village lands e.g. total area, area sown, assessment of land revenue, number of entered and attested mutations, notes about changes in cultivation, and ownership for the last four years. It also shows the population of a village and the approximate number of livestock. It is a statistical book of a village.
- Fard Bach: It contains the details of the demand of land revenue and cesses thereon recoverable from each land owner in a village.
- Roznamcha Waqiyati: All the happenings about land affairs are recorded in this diary. For instance, hailstorm, severe rains, the reports of all transactions of land, encroachments on State Land, tours conducted by various revenue officers, and all other matters connected with land are entered in it.

- In addition, there are another nineteen registers which are maintained by a Patwari.

Ali and Nasir (2010) conducted a comprehensive assessment of the trust people have into the land administration services in KPK and indicate that 93 percent of their informants indicated that there is room for corruption and unofficial changes in the land records and 87 percent of the clients were not satisfied with the processes in the present LAS and in particular the high charges for registration of ownership changes (in total around 22% of the value of the land). This low trust in the system is in particular relevant for processes such as the land consolidation process used to establish COMMAND AREAs that provide a vast discretion to the land administration with limited checks and balances in place.

3.2 Land Acquisition Practice in Pakistan

Under the legal framework of Pakistan, local governments and in particular the local Board of Revenues and the Land Acquisition Collector – both at Tehsil level – are provided through the LAA with a vast discretion with few checks and balances, provisions for public consultations, standardized methods of valuation and/or any form of proactive grievance mechanism in place. In the FATA, the Frontier Crimes Regulation provides the Political Agent with an even larger discretion as clause 56 provides no guidance on when to use negotiated settlements (compensation at consensus rate) or compensate at the rate at least partly described in the LAA.

In turn, the absence of a modern land acquisition law has triggered significant delays, cost increases, protests as well as the desire to address and overcome this challenge. In 2002 a National Resettlement Policy was drafted to ensure an equitable, uniform and modern treatment of land acquisition and resettlement all over Pakistan. The Draft Policy focuses on key shortcomings of the LAA and suggested ways to a) compensate for the loss of (i) communal assets (structures and public infrastructure like mosques, shrines, schools, graveyards) (ii) communal administered access to assets (pasture, water rights, .), and (iii) incomes from assets and resources; b) assure transparency during the asset inventory and valuation process, c) assure livelihood restoration, d) integrate through consultation processes the affected people into resettlement planning and implementation and e) provide special attention to vulnerable groups . The Draft National Resettlement Policy was never submitted to the cabinet and/or parliament and is therefore not valid although it highlights the well-known shortcomings of the LAA and Telegraph Act, as well as providing suggestions on how to overcome these shortcomings.

3.3 International requirements for land acquisition and resettlement¹¹

WAPDA has a rich experience of constructing and operating large dams. Based on lessons learned from early projects that caused significant resistance, WAPDA commonly uses international standards and approaches to access land and easement for large and complex projects such as KTMDP and has committed itself in Chapter 2 of this RPF to comply with the requirements of the Involuntary Resettlement Policy of the World Bank (OP 4.12).

The OP 4.12 applies to all components of projects that result in involuntary resettlement, regardless of the source of financing. It also applies to other activities resulting in involuntary resettlement that are (a) directly and significantly related to the project, (b) necessary to achieve its objectives as set forth in the project documents and (c) carried out, or planned to be carried out, contemporaneously with the project.

It covers direct economic and social impacts caused by the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location. To address these impacts a RPF and subsequent RAPs are prepared to ensure that the displaced persons are (i)

¹¹ For more detail see: <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,-,menuPK:4564185~pagePK:64719906~piPK:64710996~theSitePK:502184,00.html>

informed about their options and rights pertaining to resettlement, (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives, and (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

If the impacts include physical relocation, the RPF and RAPs include measures to ensure that the displaced persons are (i) provided assistance (such as moving allowances) during relocation; and (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site. Where necessary, the RPF and RAPs shall also include measures to ensure that displaced persons are (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living and (ii) provided with development assistance in addition to compensation measures outline above (iii) such as land preparation, credit facilities, training, or job opportunities. Particular attention should be paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.

World Bank experience has shown that resettlement of indigenous peoples with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the Bank satisfies itself that the borrower has explored all viable alternative project designs to avoid physical displacement of these groups. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups that are compatible with their cultural preferences and are prepared in consultation with them (see Vulnerable Tribes Plan of the KTMDP).

The implementation of resettlement activities shall be linked to the implementation of the investment component of the project to ensure that displacement does not occur before necessary measures for resettlement are in place. These measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets shall take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons.

As indicated for displaced people whose livelihoods are land-based, preference should be given to land-based resettlement strategies and resettled persons provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons or sufficient land is not available at a reasonable price, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank.

Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.

Displaced persons may be classified in one of the following three groups:

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

Persons covered under para. (a) and (b) are provided compensation for the land they lose, and other assistance. Persons covered under para. (c) are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy the project area prior to a cut-off. Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons are provided compensation for loss of assets other than land.

3.4 GAP analysis between national and international standards and gap filling measures

The Draft Resettlement Law (2002) provides a comprehensive and well balanced analysis of the LAA and other national legislation against international best practice. As KTMDP is seeking to obtain financing from international source, the higher of the two standards (international and national) shall prevail.

4 POTENTIAL IMPACTS AND ENTITLEMENTS

4.1 Subcomponent 1.1: Kaitu weir, reservoir and associated facilities

The footprint of Subcomponent 1.1 is defined by three elements a) the weir itself (pink in the map below), b) the reservoir (blue line in the map below) and c) the associated construction camp and gravel, stone sand etc. extraction quarries (location to be selected by contractor).

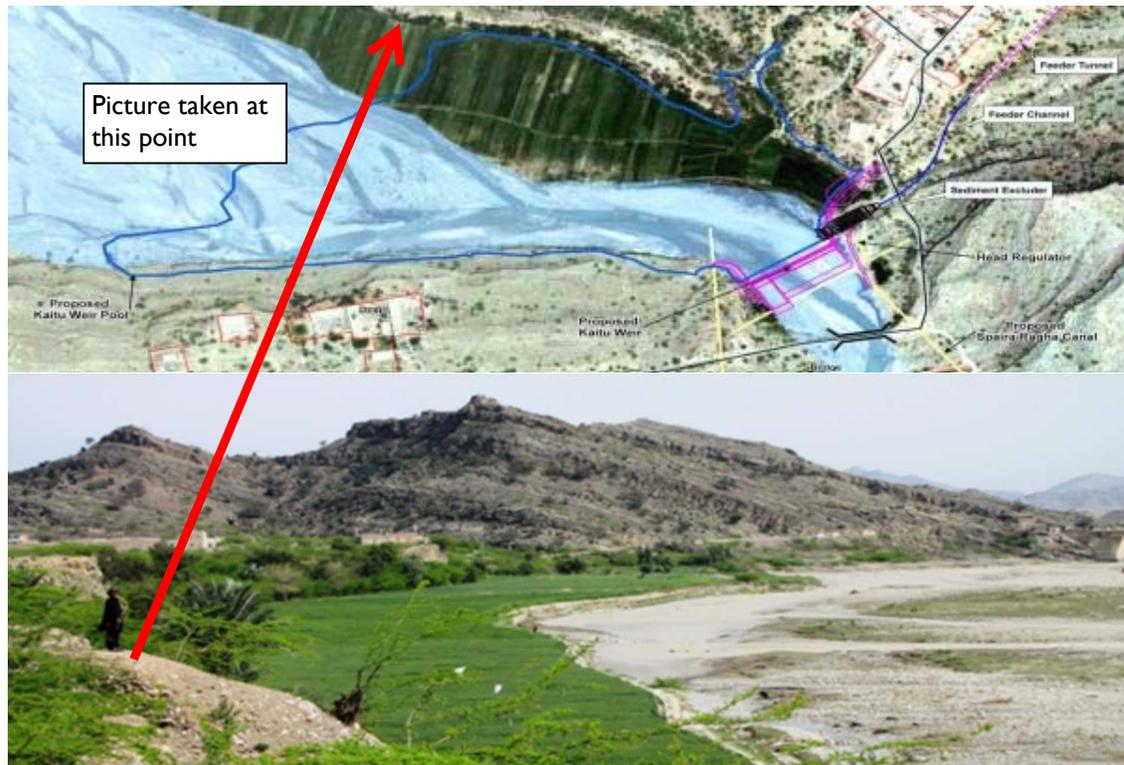


Plate 4-1: The Kaitu Weir as map and as picture

4.1.1 Socio-economic baseline

The overall footprint of Subcomponent 1.1 is nearly 59 acres, of which 45 acres are needed for the reservoir and 3.5 acres for the weir itself. Within the footprint of the weir one only finds undeveloped land, while the potential reservoir contains also 16.5 acres of agricultural land.

The locations of the construction camp(s) and the quarries, which are estimated to require around 10 acres, are presently unknown, as, according to the WAPDA tender documents, they shall be identified and established by the contractors. This does not trigger any issues for this RAP as all parties agree that the land for the camp (s) as well as for the quarries will be temporary acquired through commercial agreements between willing buyers – willing sellers and falls therefore outside the scope of this RAP.

Demography: The 16.5 acres of agricultural land in the reservoir area are presently used by 58 households that comprise 494 individuals. They all live in Shamiri/Spinwam and belong to the Shamiri Khel Clan of the Thori Khel Wazirs. 354 (72 percent) indicated that they are between 15 and 45 years in age. Half of them have never visited any school and 80 percent did not finish their primary schooling. None of the households have been identified as vulnerable, other than the people belong to a vulnerable tribe, but it can be assumed that there are vulnerable members among them equal to the overall population (between 2 percent and 5 percent). Two thirds of the households indicated that agriculture, however limited, constitutes their main source of income.

Agricultural incomes: Spinwam is located in an area with very limited agricultural land. All households indicated that the affected land is their only agricultural land despite the fact that its size, 0.28 acres per household, is on average too small to sustain a household. All households seem to have limited their production to maize, rice and wheat in recent years.

Livestock: The 10 acres of undeveloped land (Worsho) are together with other areas used as pasture. It is generally believed that the loss of the 10 acres earmarked for the reservoir and the weir has very limited impacts on the availability of fodder as there are sufficient non-developed lands around Spinwam to cover the loss.

Non-agricultural incomes: Sixteen percent of the 494 people from households that could potentially lose land in the Kaitu Reservoir, i.e. nearly one person per household, are working abroad (mostly as drivers) and their remittances are an important source of income for the potentially affected people. Average per person income is said to be PKR 193,000/year.

Other land and resource use: Between Spinwam and Datta Khel the Kaitu river bed is used as a quarry for sand, crush, gravel and white mud for construction purposes. It is mutually agreed that the construction of the Kaitu Weir will not adversely affect this activity in the area downstream of the Weir and that upstream there are sufficient other areas that can be used with little or no preparation to replace the riverbed within the future reservoir. In turn, it is expected that the construction of the weir is a good opportunity for the people involved in quarrying gravel and sand to sell these products to the construction contractor for the weir.



Plate 4-2: Quarrying in the Kaitu

Land tenure: All households using the affected agricultural land indicated that they had inherited the land, and from the results of the three land user identification meetings it seems clear that they are the mutually recognized permanent users. The average land holding of 0.28 acre per household is significantly less than the Tehsil average, but understandable given the limited agricultural land available in Spinwam.¹² Interestingly, none of the affected 58 households requested cash compensation, but all requested to be compensated in kind with land in the Spaira Raha Command Area as soon as this becomes available. The clan is perceived to be the owner of non-agricultural land.

4.1.2 Impacts: Economic Displacement

¹² It needs to be noted that there is a significant difference between the surface area of the affected agricultural land identifiable from the satellite images and the claims by the affected people. While objectively the footprint consists of 16.5 acres of agricultural land, 1.6 acres of undeveloped land (mostly on the southern side of the proposed reservoir) and 27.2 acres of riverbed, the affected people claim that within the same footprint there are 92 acres of agricultural land i.e. twice the total footprint of the reservoir. This might be partly related to the difficulties in estimating surface areas when there are no land records, partly to the mutual claim that significant parts of the land had been washed away by the floods in recent years and finally the hope of obtaining higher compensation through inflated claims.

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As one sees from the map, the pictures and the text above, the main social impact of subcomponent I.1 is the loss of 16.5 acres of agricultural land in the potential reservoir. In addition, 10 acres of undeveloped land (worsho) that is used for grazing and 30.3 acres of riverbed that is used for the collection of gravel will be inundated.

Table 4-1: Social impacts of Subcomponent I.1

Package	Affected land and land use (acres)					Affected Assets		Affected Households (HH)		Project affected People	
	Total	Agri-culture	Residential	Water	Worsho	Structures	Trees	Physical	Economic	Physical	Economic
Kaitu weir with other permanent facilities	3.5	0.0	0.0	3.2	0.3	0	8	0	0	0	0
Kaitu reservoir	45.2	16.5	0.0	27.2	1.6	0	22	0	58	0	494
Construction camp & quarries (temporary)	10.0	2.0	0.0	0.0	8.0	0	0	0	2	0	21
Total	58.7	18.5	0.0	30.3	9.9	0	30	0	60	0	515

4.1.3 Eligibility and Entitlements

Table 4-2: Entitlements Relevant to Subcomponent I.1

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Tribal ownership of land	At the time of census mutually recognized as clan holding a specific territory in the footprint	FATA: Replacement land in new Command Areas <u>or</u> cash compensation for all un-developed land (worsho and Zangal/forest at local replacement value: paid to clan Jirga based on annually updated rates	<u>Land Transfer allowance</u>	N/A
Agricultural land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land	Replacement land of similar size and quality at new Command Areas provided to households. If rain-fed land is replaced with irrigated land, the area might be smaller because irrigated land is more productive. If the overall land holding of the affected household is less than 1 acre, the household receives replacement land of 1 acre.	<u>Land Transfer Allowance</u> <u>Replacement land preparation allowance</u>	N/A
Land Use				
Peasant owner and Peasant – permanent right holder of agricultural land	At the time of the census be recognized by local community and/or resettlement committee as peasant-owner/peasant-permanent right holder	N/A	<u>Peasant Transition Allowance</u>	<ul style="list-style-type: none"> • Training in irrigated agriculture for each household member between 15 and 45 • Agricultural start-up package
Annual crops	At the time of the census, be recognized by local community and/or resettlement committee as the permanent right holder of an affected annual crop, regardless of land ownership status	<u>Compensation for annual crops</u> per KTDP rates, revised annually, if crop cannot be harvested before the land is required for development	N/A	N/A
Perennial crops	At the time of the census, be recognized by local community and/or resettlement committee as the permanent right holder of an affected perennial crop, regardless of land ownership status	<u>Compensation for perennial crops</u> per KTDP rates, revised annually plus seedlings. Trees are categorized as: <ul style="list-style-type: none"> - Saplings - Mature productive. - Old 	N/A	N/A

- Land transfer allowance, which covers all the costs of transferring land titles, is included in the replacement values.
- Replacement land preparation allowance is defined to be two annual harvests to compensate for the fact that it will take several years before yields reach full productivity
- Peasant transition allowance is defined as annual yield for each year between land take and the provision of new land in the Spaira Ragma Command area. Based on the present schedule this is defined to be three years and might need to be extended if project implementation is slower than scheduled.
- The annual harvest is defined as PKR 100,000/acre in 2013.

4.1.4 Entitlements

Combination of the available data with the relevant entitlements as defined in the entitlement matrix of the RPF, the PAPs are entitled to the compensations, allowances and assistance shown in Table 4-3

Entitlements	Unit cost in PKR	Number	Total PKR
Agricultural land (Replacement value PKR 21,243,816)	1,287,504	16.5	In kind
Worsho etc.	833,834	32.2	26,849,455
Firewood (Sarkari Keekar/Shesham mature)	5,000	30	150,000
Transition Allowance (LH)	100,000/acre per year	16.5	4,950,000
Replacement Land Preparation Allowance	200,000/acre	16.5	3,300,000
Training in irrigation agriculture	~10,000 per person	354	3,540,000
Irrigation start up package	~100,000 per HH	58	5,800,000
Vulnerable people	5% of LH assistance		247,500
Total: Subcomponent I.1			44,836,955

It should be noted that this initial budget is based on the assumption that the land is taken after a last harvest of either Rabi or Kharif and that the replacement land is available three years after this expropriation date.

As it will take at least one year before the FATA Irrigation Department can allocate the new land parcels to the affected households, WAPDA and FATA Department of Irrigation, through the Land Acquisition Unit, (see section 8.2.4) will establish a notarized agreement with each of the affected households, in which the household head declares that he is permanent right holder of a parcel of agricultural land in the potential reservoir (the land parcel will be described and highlighted in a detailed map including an clear indication of its size in local measures as well as in acres) and that he and his household give up all rights to this parcel in exchange for the following compensations, allowances and assistance:

- a) Upfront payment of an annual transition allowance of PKR 100,000/acre for his plot;
- b) Upfront payment of a land preparation allowance of PKR 200,000/acre for his plot;
- c) a plot of similar size but at least one acre of irrigated land in the future Spaira Ragma Command Area with land titles in the name of the head of household;
- d) Training in Irrigated Agriculture for each household member between 15 and 45 years as specified in an attached list that provide the name and ID number of the relevant household members; and,
- e) One Start-up package for irrigated agriculture consistent of non-mechanical equipment, seeds for one year, technical assistance and access to finance.

The household entitlement in cash shall be wired to the bank accounts of the head of household (and if the head of household does not have a bank account in a bank account opened by the project in his name) at the time the land is officially expropriated (at the end of the last harvest before filling the reservoir). Prior to receiving this cash compensation WAPDA and its contractors are not allowed to enter the land described in this agreement and if WAPDA or its contractor need access prior to that date an additional agreement shall be made to cover the damage or this agreement amended to address the associated additional entitlements (damage).

¹³ The numbers of affected households and persons are conservative estimates based on GIS interpretation and limited surveys. These numbers as well as the size of household landholdings require ground truthing prior to finalization of the resettlement budgets.

After compliance with these provisions and disbursement of cash compensation, allowances and assistance has been confirmed by the Panel of Experts (see section 8.4.4) construction of Subcomponent I.1 can commence.

KTDP's Land Acquisition Unit and the Panel of Experts will monitor progress made during implementation and advise WAPDA if additional payments are needed to compensate for delays when the replacement land is not provided to the affected people within three years after expropriation.

4.2 Subcomponent I.2: Canals, Powerhouses and Roads

The canals to the Spaira Ragma and Sheratalla Command Areas have a width of 40-60 feet with an embankment on both sides and with a total footprint of almost 400 acres. Nevertheless, the impact is rather limited as less than 28 percent of this land is used for agriculture and less than 1 percent for residential purposes. The available design would require the relocation of 25 structures (21 residential structures, one basic health unit, one cattle shed and two wells). It is mutually agreed that the available design allows room for improvement with a view to minimizing/avoiding resettlement impacts and WAPDA has committed itself during the validation workshop of this RAP to enhance the design of the canals in order to avoid all impacts on structures. Based on this commitment, no resettlement site has been identified.

Similarly, based on the available design, the proposed road from Spinwam to the future Spaira Ragma Command Area would require the relocation of 11 structures (all residences), but again desktop studies suggest that this impact can be avoided relatively easily through rerouting. As commitments were made by WAPDA and the FATA Secretariat to avoid the relocation of these houses through re-routing during detailed design, no resettlement site for these 11 structures has been identified.

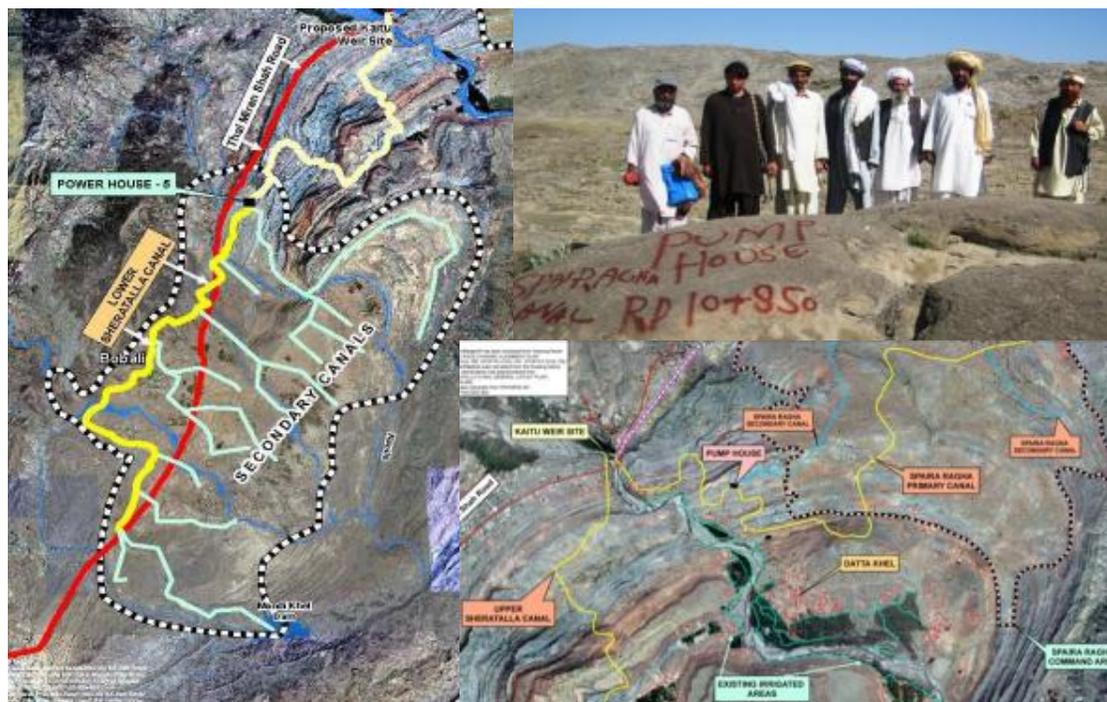


Plate 4-3: Maps of the main and secondary canals and a picture of the pump station location

Table 4-4: Social Impacts of Subcomponent I.2

Package	Affected land and land use (acres)					Affected Assets		Affected Households		Affected People	
	Total	Agri-culture	Residential	Water	Worsho	Struct.	Trees	Physical	Econ.	Physical	Econ.

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Mains and secondary canals of the Spaira Ragha Plains	78.7	33.6	0.1	0.5	44.4	2	43	2	6	30	81
Mains and secondary canals of the Sheratalla Plains	319.2	79.5	2.5	8.3	229.0	23	176	19	59	257	797
New 12 mile road from Spinwam to Spaira Ragha	129.0	12.9	1.2	2.7	112.1	11	73	11	7	149	95
Access road to power house 4	1.1	0.5	0.0	0.0	0.5	0	1	0	3	0	38
Access road to power house 5	2.3	0.0	0.0	0.0	2.3	0	1	0	0	0	0
Powerhouse 4 at the Kurram + Transfer canal and tunnel	24.0	0.0	0.0	0.5	23.3	0	13	0	0	0	0
Pump house for lift canal, housing, support/security staff	0.6	0.0	0.0	0.0	0.6	0	0	0	0	0	0
Power house 5	0.1	0.0	0.0	0.0	0.1	0	0	0	0	0	0
Total Subcomponent 1.2	554.9	126.5	3.8	12.0	412.4	36	307	32	75	436	1,010

4.2.1 Socio-economic Impacts

Subcomponent 1.2 has an overall footprint of 555 acres of which 126.5 acres are agricultural land, 4 acres residential land and 424 acres undeveloped land. While the powerhouses are entirely located on undeveloped land and therefore have minimal impacts on local livelihoods, canals and roads will trigger the economic displacement of 1,010 people. Finally and most prominently, without additional mitigation measures the canals and roads will trigger the physical displacement of 436 people.

4.2.1.1 Physical Displacement by Canals and Roads

The GIS analysis as well as discussions with the affected people indicated that there are 25 structures within the corridors earmarked for the canals and 11 structures within the corridors earmarked for the roads.

Twenty-five of the affected 36 households that have houses in the corridor of the proposed canals and roads were interviewed during 12 meetings organized with affected people in Bannu. It needs to be noted that the data provided by the affected heads of household could not be verified on site owing to security concerns. As the provided data suggest that these households are significantly larger with significantly larger and better structures than the average within the Spinwam and Mir Ali Tehsil, it is considered possible that the data have been inflated in anticipation of compensation. The data therefore require ground verification before allocation and disbursement of compensation.

Based on the available data, the households affected by physical displacement have on average 13.5 members and that consequently 30 people will be physically displaced by the Spaira Ragha Canals, 257 by the Sheratalla Canals and 149 by the new road from Spinwam to Spaira Ragha. Fourteen households provided an insight into their residential land holdings. This suggests that on average each household has 0.9 acres of residential land, while on average 0.12 acres of their residential land is affected. This underlines the importance of either completely avoiding relocation or reducing it to a level where the household can stay on its residential plot by just shifting the compound walls and some inside structures. Seventeen households provided details about their structures. On average they claim to have 15.4 rooms, 2.3 bathrooms and 2.2 latrines each, which is more than three times the local average. All households claim that their structures are built of modern materials (pacca). Finally half of the affected household heads requested compensation in cash, while the other half would prefer to receive in kind compensation in the form of a replacement house at a resettlement site near Bannu Township.



Plate 4-4: Field map used to identify the potentially affected structure and owner (see signature at the bottom) and level of potential impacts

Avoiding potential impacts on these structures is strongly recommended and WAPDA committed to do so during the validation workshop. Nevertheless, as this commitment has not been implemented or documented, it cannot be considered as base case in this RAP. Last but not least the enhanced alignments are not yet available.

Eligibility and Entitlements

Table 4-5: Eligibility and Entitlements Matrix for Subcomponent I.2 (structures)

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Residential land or Commercial land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land.	Cash compensation at replacement value, if the PAP for example wants to move out of project area, has an additional house not affected by the project, loses less than 20% of his house/compound and prefers to shift his property back	Regardless of whether compensation is in-kind or in-cash: <u>Land Transfer Allowance</u> 22% of market value in cash	N/A
Structures, buildings, houses.				
Residential House: Titled owner or recognized permanent right holder	Household that at the time of the census (cut-off date) be recognized by local community, and/or resettlement committee as owner or permanent right holder of house.	Cash compensation at replacement value based on KTDP's replacement rates for inhabitable structures, if the household wishes to relocate on his own and after presenting a rent agreement or preliminary ownership title, if the household loses less than 25% of his house/compound and can renovate the not affected part, if the household can demonstrate that he just shifts the house out of the way of linear infrastructure but has sufficient land to stay in-situ	<u>Connection Allowance</u> PKR 20,000 (in 2013)	N/A
Owner residents Permanent right holder residents		N/A	<u>Moving allowance</u> (PKR 50,000 in 2013) regardless of the compensation option selected <u>Transition allowance</u> (PKR 50,000 in 2013) regardless of compensation option selected	N/A
Vulnerable People	Meet at least one of the criteria (gender, age, handicapped)	N/A	<u>Case by case</u>	<u>Case by case</u>

Entitlements

In the light of the potential impacts as well as the entitlements of the affected people, the conclusion can be drawn that for this specific group of affected people cash compensation might be justified, since their landholdings are significant larger than the area affected and/or it seems reasonable that they are able to shift their houses with the compensation to avoid being impacted and/or are interested in leaving the project area and settling in Bannu where houses can be purchased in an active and comprehensive land and housing market.

Items	Unit costs	Numbers	Total
Residential land	1,554,292	3.8	5,906,310
Residential structures	800/square feet	32	32,000,000
Communal infrastructure	20% of residential		6,400,000
Resettlement Site Development	10% of residential		3,200,000
Moving, transition & Connection Allowances	120,000 per HH	32	3,840,000
Total costs of potential physical displacement in Subcomponent 1.2			51,346,310

There are three choices available on how to address the physical displacement impacts of Subcomponent 1.2:

- Avoid impacting the houses presently in the alignment of the canals in the Sheratalla and Spaira Ragma and the new road from Spinwam to the Spaira Ragma Command Area; or
- Conduct field verification of the data provided by the affected households and disburse the finalized compensation to the heads of affected households via bank transfer; or
- Establish resettlement site(s) at an acceptable location with similar or better houses.

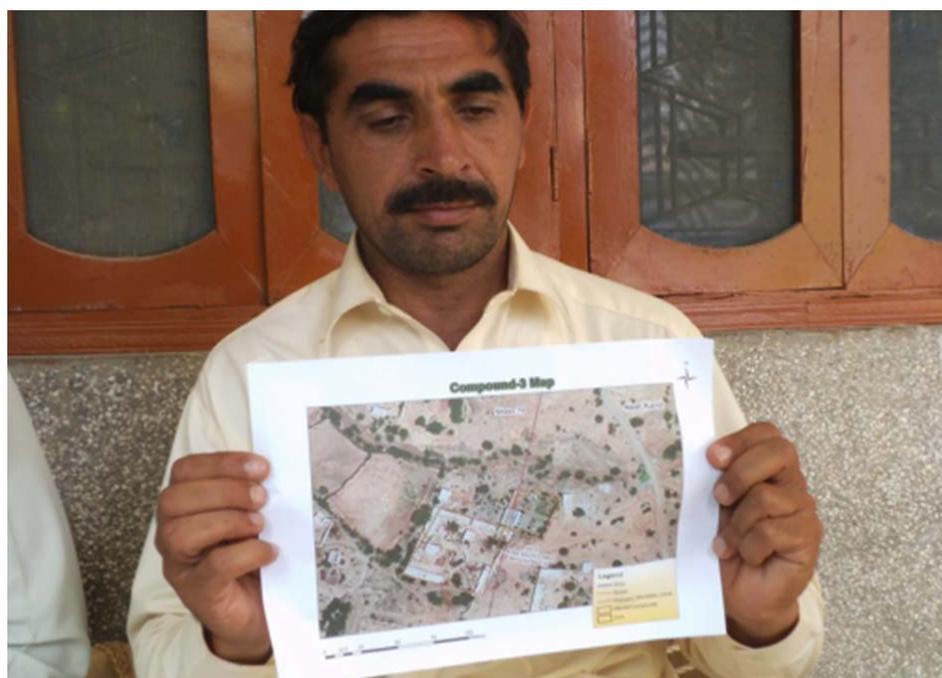


Plate 4-5: House owner showing his compound and the potential impact of the canals (red line)

4.2.1.2 Economic Displacement by Canals and Roads

The GIS analysis, superimposing available designs on high resolution satellite images, indicates the following:

- The Canals would impact 113 acres of agricultural land comprising 238 plots of land;
- The new road from Spinwam to the Spaira Ragha plains would impact 12.9 acres of agricultural land comprising 19 plots of land; and,
- The new road to Powerhouse V would impact 0.5 acres of agricultural land comprising three plots.

It should be noted that most likely not all of these farms are presently used as the visible boundaries of parcels used in the GIS analysis to define a parcel might be remnants from the time when the area was inhabited by refugees from Afghanistan. During 12 meetings with the local population 55 households were identified as having permanent access rights to farms within the present alignment of the canals, 49 of them within the alignment of the Sheratalla Canals and six within the proposed right of way of the Spaira Ragha Canals. The survey identified that 10 farms are cultivated by tenants. In addition seven households have been identified that would be affected by the new road from Spinwam to the Spaira Ragha and three by the access road to Powerhouse V. Of these 75 households (65 permanent right holders and 10 tenants), only 24 could be interviewed as the other householders were either absent, non-accessible or refused to travel to Bannu to be interviewed. Owing to security concerns all interviews were conducted in the ACE field office i.e. without in situ verification. As discussed above (Section 3.2.1.1), it is probable some of the information was inflated. It is therefore strongly recommended that the census and asset inventory is completed and the available information verified in the field.

Demography: Extrapolation of the available data from the interviewed 24 households to the 75 households owning or using agricultural land within the alignment of the proposed canals and roads indicates that 1,010 people will be impacted by this loss of productive assets. 534 of them are in the 15 to 45 year age group.

Agricultural Income: While on average each household will lose 2 acres of land, these households have rather large farms with on average 11 acres per household compared to the regional average of 0.91 acres. Nevertheless, half of them will lose almost all their farmland (those with small land holdings), while the other half will only lose a minor portion (< 20 percent) of the land they use. Ten of the affected plots are cultivated by tenants. The affected farmers or tenants farm maize and wheat.

Livestock: On average each of the households has 22 chickens, 17 goats, 13 cows, five sheep and two oxen i.e. they seem to be rather large scale agriculturists and breeders.

Non-agricultural income: Non-agricultural incomes are not very common among this group, which underlines the fact that they are largely dependent on their agricultural lands.

Other land and resource use: The entire Spaira Ragha and Sheratalla plains are used as pasture, but the establishment of the canals and roads would not undermine this activity as the footprint of the canals and roads is insignificant relative to the overall land area available. As far as the free movement along established livestock tracks is concerned, the EA recommends construction of bridges across the canals to time to facilitate access to the compounds in the area.

Land tenure: Sixty-five of the households perceive themselves and are perceived by others as the permanent right holders, while 10 households perceive themselves and are perceived by others as tenants. The clans are perceived as the owners and users of all undeveloped lands (worsho).

4.2.1.3 Eligibility and Entitlements

Table 4-6: Eligibility and Entitlements Matrix for Subcomponent 1.2 (canals, roads and powerhouses, pump houses)

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Tribal ownership of land	At the time of census mutually recognized as clan holding a specific territory in the footprint	Replacement land in new Command Areas <u>or</u> Cash compensation for all un-developed land (worsho and Zangal/forest at local replacement value: paid to clan Jirga based on annually updated rates	<u>Land Transfer allowance</u>	N/A
Agricultural land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land	Preferred Option where Incomes are Land-based: Replacement land of similar size and quality in new Command Areas provided to households	<u>Land Transfer Allowance</u> <u>Replacement land preparation allowance</u>	N/A
Land Use				
Peasant owner & Peasant – permanent right holder of agricultural land	At the time of the census be recognized by local community and/or resettlement committee as peasant-owner/peasant-permanent right holder	N/A	<u>Peasant Transition Allowance</u>	• Training in irrigated agriculture for each household member between 15 and 45 Irrigation Start up package
Tenant of agricultural land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as the tenant of an affected agricultural land	N/A	<u>Land tenancy replacement allowance</u>	
Annual crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected annual crop, regardless of land ownership status	<u>Compensation for annual crops</u>	N/A	N/A
Perennial crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected perennial crop, regardless of land ownership status	Compensation for perennial crops per KTDP rates, revised annually plus seedlings. Trees are categorized as: <ul style="list-style-type: none"> - Saplings - Mature productive. - Old 	N/A	N/A
Vulnerable People	Meet at least one of the criteria (gender, age, handicapped)	N/A	<u>Case by case</u>	<u>Case by Case</u>

The land tenancy replacement allowance is defined to be PKR 100,000 per household.

4.2.1.4 Entitlements

Combination of the available census and asset inventory data with the relevant entitlements as defined in the entitlement matrix shown in Section 3.2.2.1 of the RPF, the PAPs are entitled to the compensations, allowances and assistance presented in the Table 4-8.

Entitlements	Unit cost in PKR	Number	Total PKR
Agricultural land	1,287,504	126.5	162,869,256
Worsho etc. (within or near future Command Areas)	833,834	399.9	231,013,710
Worsho etc. (Sheratalla primary canal)	833,834	399.9	102,436,507
Firewood (Sarkari Keekar/Shesham mature)	5,000	294	1,470,000
Transition Allowance	100,000/acre per year	126.5	25,300,000
Replacement Land Preparation Allowance	200,000/acre	126.5	25,300,000
Training in irrigation agriculture	~10,000 per person	534	5,340,000
Irrigation start up package	~100,000 per HH	75	7,500,000
Tenancy replacement allowance	100,000 per HH	10	1,000,000
Vulnerable people	5% of LH assistance	0	1,265,000
Total costs of livelihood Impacts of Subcomponent 1.2			563,494,473

This budget can be significantly reduced if WAPDA provides land for land compensation to all permanent right holders of agricultural land as well as for the land owned by the clans that is within the future Command Areas. Based on a transition period of one year, the optimized budget would significantly lower and assure that benefits are provided to the local Wazirs.

Entitlements	Unit cost in PKR	Number	Total PKR
Agricultural land	1,287,504	126.5	In kind
Worsho etc. (within or near future Command Areas)	833,834	277.05	In kind
Worsho etc. (Sheratalla primary canal)	833,834	122.85	102,436,507
Firewood (Sarkari Keekar/Shesham mature)	5,000	294	1,470,000
Transition Allowance	100,000/acre per year	126.5	25,300,000
Replacement Land Preparation Allowance	200,000/acre	126.5	25,300,000
Training in irrigation agriculture	~10,000 per person	534	5,340,000
Irrigation start up package	~100,000 per HH	75	7,500,000
Tenancy replacement allowance	100,000 per HH	10	1,000,000
Vulnerable people	5% of LH assistance	0	1,265,000
Total costs of livelihood Impacts of Subcomponent 1.2 (optimized)			169,611,507

This initial budget is based on the assumption that the land is taken after a last harvest of either Rabi or Kharif and that the replacement land is available two years after this expropriation date.

As it will take at least one year before the FATA Irrigation Department can allocate the new land parcels to the affected households, WAPDA and FATA Department, through the Land Acquisition Unit, will establish a notarized agreement with each of the affected households that are considered as holding permanent user rights, in which the household head declares that he is permanent right

¹⁴ The numbers of affected households and persons are conservative estimates based on GIS interpretation and limited surveys. These numbers as well as the size of household landholdings require ground truthing prior to finalization of the resettlement budgets.

holder of a parcel of agricultural land in the alignment of the canals/roads (the land parcel will be described and highlighted in a detailed map including a clear indication of its size in local measures as well as in acres) and that he and his household give up all rights to this parcel in exchange for the following compensations, allowances and assistance :

- Upfront payment of an annual transition allowance of PKR 100,000/acre for his plot;
- Upfront payment of a land preparation allowance of PKR 200,000/acre for his plot;
- A plot of irrigated land in the future Spaira Ragma Command Area of similar size as the land lost to the canals and roads with land titles in the name of the head of household
- Training in irrigated agriculture for each household member between 15 and 45 years as specified in an attached list that provides the name and ID number of the relevant household members; and,
- One start-up package for irrigation agriculture consistent of non-mechanical equipment, seeds for one year, technical assistance and access to financing.

The household entitlement in cash shall be wired to the bank accounts of the head of household (and if the head of household does not have a bank account to a bank account opened by the project in his name) at the time the land is officially expropriated (at the start of the construction of canals and roads. Prior to receiving this cash compensation WAPDA and its contractors are not allowed to enter the land described in this agreement and if WAPDA or its contractor need access prior to that date an addition agreement shall be made to cover the damage or this agreement amended to address the associated additional entitlements (damage).

For the 10 tenant-households the agreement will be limited to points d and e and an additional PKR 100,000/household to be disbursed against a draft rent/lease agreement for replacement land.

For the Worsho within the footprint of the primary and secondary canals as well as road alignment that is within the Command Area the affected clan will receive replacement irrigated land in the Command Area at the agreed exchange rate for non-irrigated agricultural land and WAPDA and the Department of Irrigation will provide this legally binding commitment through an agreement with the affected clan before the commencement of civil works.

For the Worsho within the footprint of the primary canal towards Sheratalla (i.e. 120 acres) the affected clan will receive cash compensation at replacement value as the distance to the Command Areas is too large to reasonably believe that the affected herders move to the command area for livelihood restoration purposes.

KTDP's Land Acquisition Unit and the Panel of Experts will monitor progress made during implementation and advise WAPDA if additional payments are needed to compensate for delays when the replacement land is not provided to the affected people within two years after expropriation.

4.2.2 Powerhouses IV and V and Spaira Ragma pumping station

Powerhouse IV including its transfer tunnel and canals, Powerhouse V and the pumping station for the Spaira Ragma Command Areas will all be established on undeveloped land. Therefore, their impact will be the loss of undeveloped land and a very limited reduction in available grazing areas.

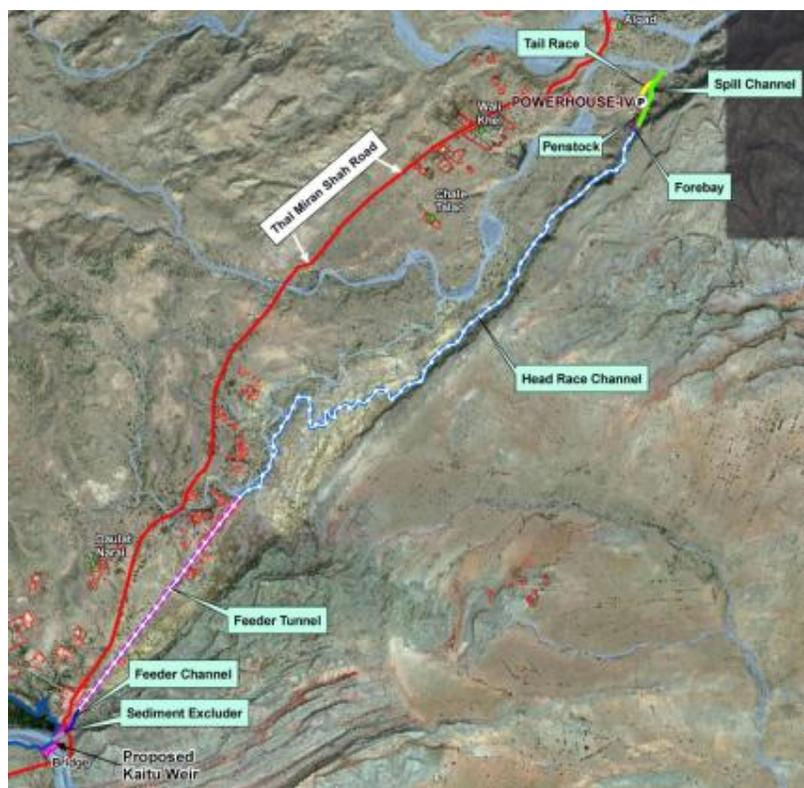


Plate 4-6: Transfer canal from Kaitu weir to powerhouse 4

4.2.2.1 Entitlements

As specified in the entitlements matrix of the RPF, undeveloped land will be compensated at replacement value in cash paid to the relevant clan.

Table 4-9: Entitlements for Subcomponent I.2 (Powerhouses and pump houses)

Item	Land need in acres	Replacement value (PKR/acre)	Total
Powerhouse 4 at the Kurram + Transfer canal and tunnel	24.0	833,834	20,012,016
Pump house for lift canal, housing, support/security staff	0.6	833,834	502,417
Powerhouse 5	0.1	833,834	47,529
Total			20,561,961

4.2.3 Summary of Entitlements Subcomponent I.2

Items	PKR
Physical Displacement	Can be avoided
Livelihood Impacts of canals and roads	169,611,507
Powerhouses and pumping station	20,561,961
Total costs	190,173,468
Plus in kind provision of 403.5 acres in the new Command Areas	

As indicated above, Subcomponent I.2 requires some finalization before it can be implemented and the following steps need to be performed by the KTDP Land Acquisition Unit:

- Route refinement for the canals and the Spinwam-Spaira Ragha road to avoid structures;
- Comprehensive census and asset inventory of the agricultural plots affected by Subcomponent I.2;
- Establish an Addendum to this RAP on that basis and validate it with the affected people, WAPDA, FATA and the Panel of Experts to verify that it complies with the provision in the RPF;
- Establish agreement with all affected households based on the provisions outlined in Section 3.2.2.2 of this RAP;
- Disburse upfront payment before the commencement of civil works;
- Monitor progress made as well as compliance with the detailed engineering plans to ensure that no additional lands and consequently households are affected, and that the replacement land is provided in a timely manner or additional annual transition allowances are paid until the replacement land has been provided with titles to the affected households; and,
- Commission a close out audit through the Panel of Experts.

4.3 Subcomponent I.3: Transmission lines

Transmission line rights of way are similar to roads and canals and have a long but fairly narrow corridor of impact. This defining characteristic creates both advantages and difficulties. Narrow strips of land generally displace few people. However, the long, narrow project corridor may make administrative coordination difficult if the project passes through multiple different local administrations in the manner of the transmission lines proposed under Component I of the KTDP. The resettlement impacts of linear projects are often less severe than those of large-area components, such as dams, because narrow corridors tend to require acquisition of only parts of people's properties. Land acquired in linear projects frequently consists of a strip along property frontages. Acquiring these strips may not require relocation of occupants or users and typically may not negate the economic viability of landholdings. Linear projects can usually be rerouted to avoid heavy concentrations of population and to avoid large-scale resettlement.

If relocation is needed, though, people can usually be resettled in the same area, sometimes, especially in rural zones, even on the same plot of land. Nonetheless, even small-scale land acquisition can result in significant hardships for some PAPs.



Plate 4-7: Identification of affected households and data collection in the field

4.3.1 Socio-economic baseline

The footprint of the transmission line is defined by the length of the transmission line and the width of the easement corridor. Based on the technical specifications, the 5.3 miles long 11 kV transmission line from Powerhouse V to the Spaira Ragha pump station impacts on a corridor with a width of 50 feet while the 25 miles 115 kV transmission line from Powerhouse V to the substation in Domail near Bannu requires an easement corridor of 100 ft. The transmission line from Powerhouse IV to the Domail substation crosses the territory of 14 settlements that have a total population of 8,475 people, while the smaller line from Powerhouse V to the pump station only passes through the territory of Shemeri/Spinwam that has a population of 3,000 people.

Table 4-11: Villages along the transmission line

Nr.	Village	Agency/District	settlements	Households	population
Power House-IV to Power House-I (Main Dam)					
1	Wali Khel	North Waziristan		25	300
2	Cale Talao	North Waziristan		20	180
Power House-I to Power House-III					
3	Madi Khel	FR Bannu		18	200
4	Kaituai	FR Bannu	2	20	200
5	Zarwam	FR Bannu	1	250	2,000
6	Poya	FR Bannu	4	120	1,100
7	Tanggai	FR Bannu	2	13	200
8	Pisi (Khonya Khel)	FR Bannu	7	60	500

Power House-III to Substation near Bannu Township					
9	Zawa Khwara	FR Bannu	4	25	250
10	Gumbatai	FR Bannu	4	130	1,535
11	Shashogai	Bannu	10	35	395
12	Shadi Khel	Bannu	3	25	275
13	Alamdardar	Bannu	3	65	625
14	Barganato Lagad	Bannu	3	55	715

The GIS analysis indicates that the present alignment of the transmission lines impacts on 336 acres of land in total, of which 74 acres are used for agriculture and 3.6 acres for residential purposes. There are 12 houses within the corridor. It is estimated that 109 people will face physical displacement, while 3,300 people will face economic displacement.

As the alignment has not been developed beyond the feasibility stage as transmission lines are not planned and build by WAPDA but by PEPCO no detailed baseline study has been carried out. However, general information obtained in village meetings and from a sample survey of 120 people from these 14 villages provides the following insights into their livelihoods and standards of living.

Demography: All households from Wali Khel to Zarwam belong to the Kubal Khel sub-tribe of the Wazirs, from Zarwam to Pisi to three Ahmadzai clans (Gangi Khel, Khojal Khel and Khoni Khel), around Zawa Khwara to two Momand Khel clans (Kaloot Khel and Grumi Khel), from Gumbatai until Shadi Khel to five Asperka clans (Bharat Khel, Sadey Khel, Baghban Khel, Bakool Khel and Kundai), and finally around Alamdar and Barganato to five Asperka clans (Kundai, Muqem Khel, Indus Khel, Madi Khel and Derwesh Khel). The households have on average 7.8 members. Sixty-six percent of them are between 15 and 45 years old. Twenty percent of them have finished primary school or higher levels of education.

Housing: One percent have a kacha house, 55 percent a house between kacha and pacca and 44 percent a pacca house covering 0.1 acres each on average. On average these houses have 4.1 rooms. On average each compound has 0.5 kitchens, 0.3 bathrooms and one latrine.

Agriculture: All households indicated that agriculture is their main source of income. They claim to have permanent user rights to 1 acre of agricultural land per household on average that is mostly used for the production of maize and wheat.

Livestock: Each household has 8.8 chickens, 4.3 goats, 1.4 sheep, 2.3 cows, 0.2 buffalos, 0.1 oxen and 0.3 donkeys on average.

Other incomes: Thirty-five percent indicate that they have sources of income other than agriculture and 12 percent indicate that they receive remittances from household members working in other parts of Pakistan or abroad.

In case of relocation: Eighty percent would like to remain near their present location, 10 percent would like to move to Bannu and 10 percent would like to move to the site proposed by WAPDA (the so called model village).

4.3.2 Impacts: Physical and Economic Displacement

Transmission lines themselves do not require land acquisition, except for the towers. While there is no detailed design it is assumed that a tower has a footprint of 15x15 feet, i.e. 225 square feet and assume an average of 5 towers per mile. One hundred and twenty-five towers with a total footprint of less than an acre are needed for the 25 miles from Powerhouse IV to the Domail substation.

In addition, a right of way is established, imposing restrictions on land use for example, height restrictions might be imposed on crops grown under transmission lines. In most cases, existing structures are not permitted to remain underneath transmission lines. Building or widening access roads to towers can also affect property use, and restrictions on land use can affect incomes.

Table 4-12: Social impacts of Subcomponent I.3

Package	Affected land and land use (acres)					Affected Assets		Affected Households		Affected People	
	Total	Agri-culture	Residential	Water	Worsho	Struct.	Trees	Physical	Econ.	Physical	Econ.
Transmission lines Powerhouse 4 to the Domail Substation	302.4	67.8	3.3	28.0	203.3	12	166	12	361	109	3,289
Transmission line from Kaitu Weir to pump house	4.8	0.5	0.2	0.0	4.1	0	3	0	3	0	23
Transmission lines from Power house 5 to Kaitu Weir	28.4	5.7	0.0	0.0	22.7	0	16	0	2	0	18
Total Subcomponent I.3	335.6	74.0	3.6	28.0	230.1	12	185	12	366	109	3,330

4.3.3 Eligibility and Entitlements

Table 4-13: Eligibility and Entitlements Matrix for Subcomponent 1.3 (transmission line)

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Tribal ownership of land	At the time of census mutually recognized as clan holding a specific territory in the footprint	• An easement fee of 10% of the replacement value	<u>N/A</u>	N/A
Agricultural land	At the time of the census (cut-off date), be recognized by local community as owner of affected land or having permanent user rights to affected land	• Cash compensation at replacement value for all land occupied by the tower and access roads • For all other lands an easement fee of 10% of the replacement value	<u>Land Transfer Allowance</u> <u>Replacement land preparation allowance</u>	N/A
Residential land or Commercial land	At the time of the census (cut-off date), be recognized by local community as owner of affected land or having permanent user rights to affected land.	• Cash compensation at replacement value.	<u>Land Transfer Allowance</u>	N/A
Land Use				
Perennial crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected perennial crop, regardless of land ownership status	<u>Compensation for perennial crops</u> per KTDP rates, revised annually plus seedlings. Trees are categorized as: - Saplings - Mature productive. - Old	N/A	N/A
Structures, buildings, houses.				
Residential House: Titled owner or recognized permanent right holder	Household that at the time of the census (cut-off date) be recognized by local community, and/or resettlement committee as owner or permanent right holder of house.	Preferred Option - Each house owned by a household is compensated in-kind by a Replacement house on a serviced residential plot of similar size, similar area with equal or better construction materials.	<u>Connection Allowance</u>	N/A
Owner residents Permanent right holder residents	Be recognized at the time of census by local community, and/or resettlement committee as permanent right holder and resident.	N/A	<u>Moving allowance</u> <u>Transition allowance</u>	N/A
Vulnerable People	Meet at least one of the criteria (gender, age, handicapped)	N/A	<u>Case by case</u>	<u>Case by case</u>

The easement fee, combines payment for any crop damage and restricted land use and is internationally considered an appropriate way to compensate for periodic access.

4.3.4 Entitlements

Taking into consideration the potential impacts, the entitlements of the affected people as well as the absence of detailed design the starting point is a scenario in which all structures will need to be relocated and all agricultural land be compensated in cash.

Table 4-14: Entitlement for Subcomponent 1.3 (non-optimized)

Items	Unit costs (PKR)	Numbers	Total (PKR)
Residential land	1,554,292	3.6	5,595,451
Agricultural land (easement)	10% of 1,287,504	73.0	9,398,750
Agricultural land (towers)	1,287,504	1.0	1,287,504
Worsho etc.(easement)	10% of 833,834	258.1	19,853,492
Residential structures	800/square feet	12	12,000,000
Trees	4,000	185	740,000
Communal infrastructure	20% of residential		2,400,000
Resettlement Site Development	10% of residential		1,200,000
Moving, transition and Connection Allowances	120,000 per HH	12	2,400,000
Total costs of potential economic and physical displacement in Subcomponent 1.3			53,587,694

This budget can be reduced if PEPCO plans the transmission line in a way that avoids all structures:

Table 4-15: Entitlement for Subcomponent 1.3 (optimized)

Items	Unit costs (PKR)	Numbers	Total (PKR)
Agricultural land (easement)	10% of 1,287,504	73.0	9,398,750
Agricultural land (towers)	1,287,504	1.0	1,287,504
Worsho etc.(easement)	10% of 833,834	258.1	19,853,492
Trees	4,000	185	740,000
Total costs of potential economic and physical displacement in Subcomponent 1.3			29,992,242

Before commencement of construction the RAP would need to be amended based on the following:

- The final design;
- A census and asset inventory of the affected people;
- Updated compensation rates;
- Review and acceptance of the amended RAP by the Panel of Experts; and,
- The disbursement of the compensation, allowances and assistance to the affected people via bank transfer to the heads of the affected household for agricultural land and trees and the Jirga of the affected clans for undeveloped land.



Plate 4-8: Agricultural land in the future Sheratalla Command Area

4.4 Command Areas

4.4.1 Spaira Ragha Command Area

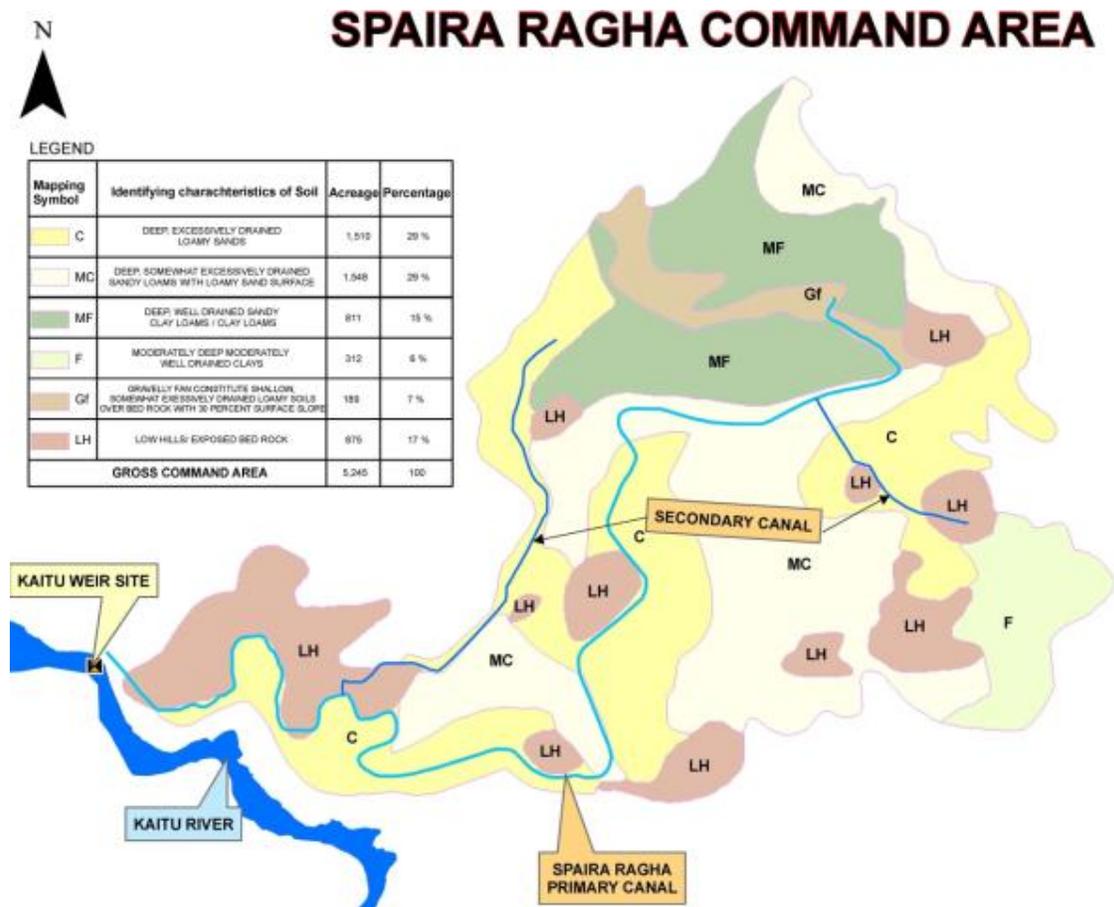


Figure 4-1: Spaira Ragha Command Area

4.4.1.1 Baseline Situation

4.4.1.1.1 Soil

The Spaira Ragha plain is formed from alluvium derived from local sandstone and shale. Soil depth decreases from the valley center to the nearby hills and clay contents increase from the hill sides to the valley center. These sandy loams are homogeneous, porous, permeable, non-saline and non-sodic. Near the foothills on comparatively more sloping parts (1-3 percent) the soil texture is mainly loamy sands. Sandstone is exposed in the lowest part of the Spaira Ragha plain, while the weathered Shales are severely eroded in places and form deep gullies.

4.4.1.1.2 Land use Capability

Land use data for the Spaira Ragha Plain was established in 2000 through an agronomic survey carried out by the Department for Agricultural Statistics of the Khyber Pakhtunkhwa Province and shows the following features of land use capability of the Spaira Ragha Command Area:

- Out of a gross area of 5,245 acres 4,302 acres are cultivable i.e. form the Command Area.
- The land use intensity is 45 percent while only 33 percent of the Command Area is presently cropped under rain fed conditions.
- Based on the above, it is clear that there is significant potential for land development with irrigation water supplies.

Socio-economic impacts of establishing the command area

Table 4-17: Social impacts of Subcomponent I.4 (Spaira Ragha)

Package	Affected land and land use (acres)					Affected Assets		Affected Households		Affected People	
	Total	Agri-culture	Residential	Water	Worsho	Struct.	Trees	Physical	Econ.	Physical	Econ.
Spaira Ragha Command Area	4,302	2,668	4	42	1,588	20	2,366	20	3,067	182	27,906

While the potential Spaira Ragha Command Area offers significant potential for increased agricultural production and therefore development in one of the poorest areas of Pakistan, it also offers risks to those that presently live in the area and/or conduct agriculture there, and/or depend on the area for pasture. The key problem from a land acquisition perspective is the complete absence of any design for the tertiary canals, land allocation strategy and/or commitment that present structures will be avoided during development of tertiary canals and that the present owners/permanent right holders and well as other land and resource users are entitled to replacement land.

Within the future Command Area 2,668 acres are presently used for agricultural production, and four acres are used for residential purposes with 20 clearly visible structures. It is probable that most of the land is used as pasture. Based on the available data for average farm sizes per household and average household sizes in the Spinwam and Mir Ali Tehsil, this suggests that 20 households might face physical displacement risks and 3,067 households economic displacement risks. To further validate these data, a sample survey of 52 households has been conducted by FORT and provided the insights listed below.

Demography: All households belong to the Kubal Khel Subtribes of the Wazirs. The households have on average 11.9 members i.e. more than the average 9.1 members in the two Tehsils. Sixty-three percent of them are between 15 and 45 years old. Thirteen percent of them have finished primary school or higher levels of education.

Housing: Twenty-seven percent have a kacha house, 53 percent a house between kacha and pacca and 20 percent a pacca house covering 0.1 acres each on average. On average these houses have 5.6

rooms, which is below the local average. Each compound has one kitchen, one bathroom and one latrine.

Agriculture: All households indicated that agriculture is their main source of income. They claim to have permanent user rights to 0.82 acres of land per household on average that is mostly used for the production of fodder. This seems to suggest that the visible plots are remnants from the time when the Spaira Ragha plain was inhabited by refugees from Afghanistan.

Livestock: On average households possess 18 chickens, 5.7 goats, 3.2 sheep, 1.9 cows, 0.2 buffalos, 0.5 oxen and 0.4 donkeys.

Other incomes: Eleven percent indicate that they have sources of income other than agriculture and 77 percent indicate that they receive remittances from household members working in other parts of Pakistan or abroad.

In case of relocation: Forty-nine percent would like to remain in North Waziristan of whom nearly half insist on relocating close to their present location, 41 percent would like to move to Bannu and 10 percent would like to move to the site proposed by WAPDA.

4.4.1.2 Eligibility and Entitlements

Table 4-16: Eligibility and Entitlements Matrix for Subcomponent I.4

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Tribal ownership of land	At the time of census mutually recognized as clan holding a specific territory in the footprint	<ul style="list-style-type: none"> Replacement Land in new Command Area or cash compensation for all un-developed land (worsho and Zangal/forest at local replacement value: paid to clan Jirga based on annually updated rates 	<u>Land Transfer allowance</u>	N/A
Agricultural land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land	<p>Preferred Option where Incomes are Land-based:</p> <ul style="list-style-type: none"> Replacement land of similar size and quality in new Command Areas provided to households. If rain-fed land is replaced with irrigated land, the area might be smaller because irrigated land is more productive. If the overall land holding of the affected household is less than 1 acre, the household receives replacement land of 1 acre. 	<u>Land Transfer Allowance</u> <u>Replacement land preparation allowance</u>	N/A
Residential land or Commercial land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land.	<p>Preferred Option :</p> <ul style="list-style-type: none"> Replacement plot of similar size and characteristics at a location acceptable to PAP. 	<u>Land Transfer Allowance</u>	N/A
Land Use				
Peasant owner & Peasant – permanent right holder of agricultural land	At the time of the census be recognized by local community and/or resettlement committee as peasant-owner/peasant-permanent right holder	N/A	<u>Peasant Transition Allowance</u>	<ul style="list-style-type: none"> Training in irrigated agriculture for each household member between 15 and 45 in household Irrigation start up
Annual crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected annual crop, regardless of land ownership status	<u>Compensation for annual crops</u> per KTDP rates, revised annually, if crop cannot be harvested before the land is required for development	N/A	N/A
Perennial crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected perennial crop, regardless of land ownership status	<u>Compensation for perennial crops</u> per KTDP rates, revised annually plus seedlings. Trees are categorized as: <ul style="list-style-type: none"> - Saplings - Mature productive. - Old 	N/A	N/A

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Table 4-16: Eligibility and Entitlements Matrix for Subcomponent I.4

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
Structures, buildings, houses.				
Residential House: Titled owner or recognized permanent right holder	Household that at the time of the census (cut-off date) be recognized by local community, and/or resettlement committee as owner or permanent right holder of house.	Preferred Option - Each house owned by a household is compensated in-kind by a Replacement house on a serviced residential plot of similar size, similar area with equal or better construction materials.	<u>Connection Allowance</u>	N/A
Owner residents Permanent right holder residents	Be recognized at the time of census by local community, and/or resettlement committee as permanent right holder and resident.	N/A	<u>Moving allowance</u> <u>Transition allowance</u>	N/A
Vulnerable People	Meet at least one of the criteria (gender, age, handicapped)	N/A	<u>Case by case</u>	<u>Case by case</u>

4.4.1.3 Entitlements

Taking into consideration the potential impacts, the entitlements of the affected people as well as the absence of detailed design and/or a land allocation strategy, the starting point is a scenario in which all structures will need to be relocated and all agricultural land be compensated for in cash. This would lead to a rather significant land acquisition budget as shown in the following table.

Table 4-17: Entitlement for Subcomponent 1.4 (Spaira Ragha not optimized)

Items	Unit costs (PKR)	Numbers	Total (PKR)
Residential land	1,554,292/acre	4	6,217,168
Agricultural land	1,287,504/acre	2,668	3,435,060,672
Worsho etc.	833,834/acre	1,588	1,324,128,392
Residential structures	800/square feet	20	20,000,000
Trees	4,000	2,366	9,464,000
Communal infrastructure	20% of residential		4,000,000
Resettlement Site Development	10% of residential		2,000,000
Moving, transition & connection Allowances	120,000 per HH	20	2,400,000
Transition Allowance	100,000/acre per year	1,588	158,800,000
Replacement Land Preparation Allowance	200,000/acre	1,588	317,600,000
Training in irrigation agriculture	10,000 per person	17,581	175,807,800
Irrigation start up package	100,000 per HH	3,067	306,700,000
Vulnerable people (5% of transition allowance)			7,940,000
Total costs of land acquisition for Subcomponent 1.4 Spaira Ragha			5,770,118,032

This budget can be significantly reduced if the FATA Department of Irrigation

- Plans the tertiary canals in a way that avoids all structures; and,
- Provides land for land compensation to all permanent right holders of agricultural land as well as for the land owned by the clans.

Based on a transition period of one year, the optimized budget would significantly lower and assure that benefits are provided to the local Wazirs.

Table 4-18: Entitlement for Subcomponent 1.2 (Spaira Ragha Optimized)

Items	Unit costs (PKR)	Numbers	Total (PKR)
Residential land	1,554,292/acre	0	Avoid
Agricultural land	1,287,504/acre	2,668	In kind
Worsho etc.	833,834/acre	1,588	In Kind
Residential structures	800/square feet	0	Avoid
Trees	4,000	2,366	9,464,000
Communal infrastructure	20% of residential		Avoid
Resettlement Site Development	10% of residential		Avoid
Moving, transition & connection Allowances	120,000 per HH	0	Avoid
Transition Allowance	100,000/acre per year	1,588	158,800,000
Replacement Land Preparation Allowance	200,000/acre	1,588	317,600,000
Training in irrigation agriculture	10,000 per person	17,581	175,807,800
Irrigation start up package	100,000 per HH	3,067	306,700,000
Vulnerable people (5% of transition allowance)		0	7,940,000
Total costs for land acquisition of Subcomponent 1.4 (Spaira Ragha)			976,311,800

Before commencement of construction the RAP would need to be amended based on:

- The final design;
- A census and asset inventory of the affected people;
- Updated compensation rates;

- Review and acceptance of the amended RAP by the Panel of Experts; and
- The disbursement of the compensation, allowances and assistance to the affected people via bank transfer to the heads of the affected households

4.4.2 Sheratalla Command Area

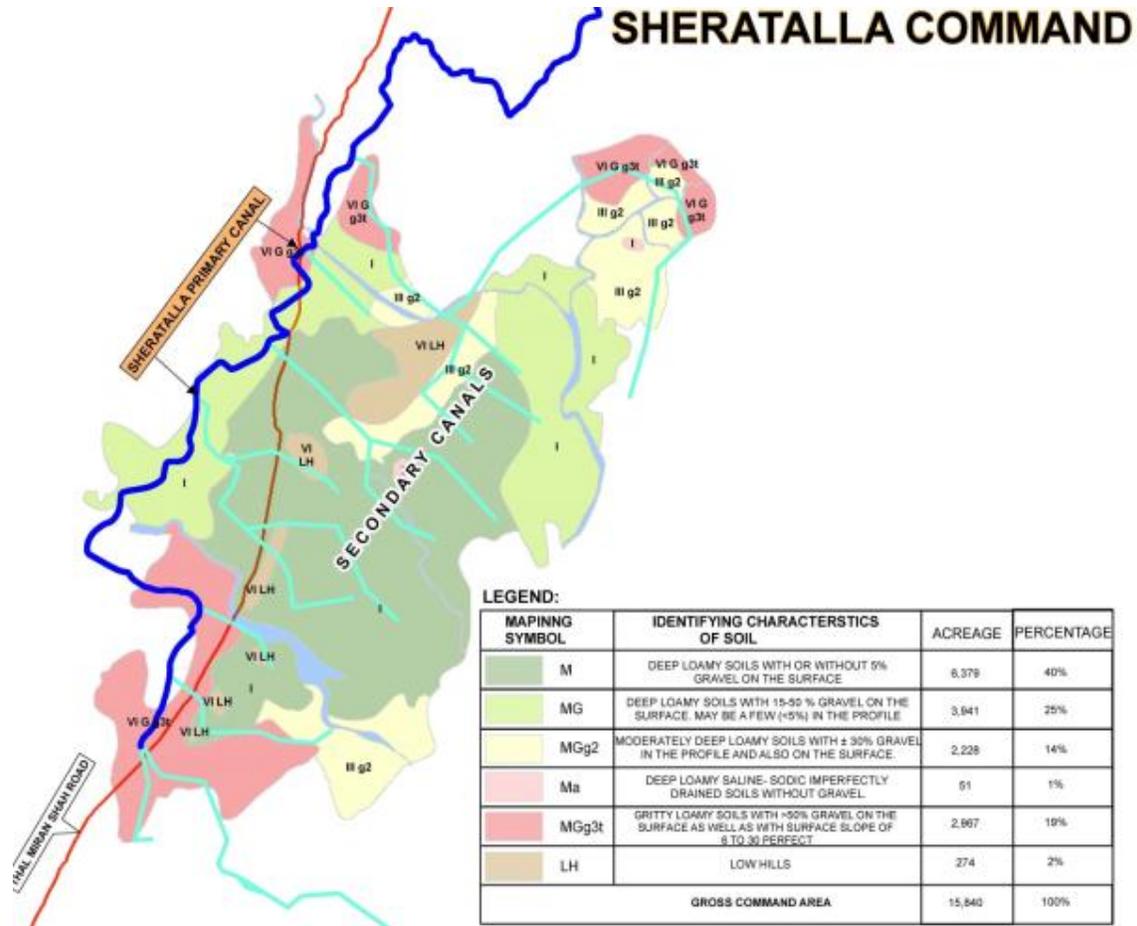


Figure 4-2: Sheratalla Command Area

4.4.2.1 Baseline situation

4.4.2.1.1 Soil

The chief characteristics of soils of Sheratalla Plain are as follows:

- Soils of the plain are comprise alluvium derived from local hills dominantly consisting of sand stone w shale.
- Overall topography is undulating.
- Some 60 percent of the entire area is littered with gravels, cobbles and boulders.
- Alluvial fans cover from 15 percent to 65 percent.
- Five to 15 percent of the area is covered by a piedmont plain that is free of stones.

4.4.2.1.2 Land use Capability

Land use data for the Sheratalla Plain was established in 2000 through an agronomic survey carried out by the Department for Agricultural Statistics of the Khyber Pakhtunkhwa Province and shows the following features of the land use capability:

- Out of a gross area of 25,840 acres, 18,427 acres are cultivable and form the Command Area.
- The land use intensity is presently around 40 percent
- Twenty-three percent of the area is cropped under rain fed conditions.
- 60 percent of the potential Command area is presently not used for agriculture and constitutes an enormous potential for land development if irrigation water is made available.

Socio-economic Impacts of developing the Command Area

Table 4-19: Social Impacts of Subcomponent I.4 Sheratalla Command Area

Package	Affected land and land use (acres)					Affected Assets		Affected Households		Affected People	
	Total	Agri-culture	Residential	Water	Worsho	Struct.	Trees	Physical	Econ.	Physical	Econ.
Sheratalla Command Area	18,427	5,983	309	573	11,561	603	10,135	603	6,877	5,487	62,579

While the proposed Sheratalla Command Area offers significant potential for increased agricultural production and therefore development in one of the poorest areas of Pakistan, it also offers risks to those that presently live in the area and/or conduct agriculture there, and/or depend on the area for pastures. The key problem from a land acquisition perspective is the complete absence of any design for the tertiary canals, land allocation strategy and/or commitment that existing structures are avoided during development of tertiary canals and that the present owners/permanent right holders and well as other land and resource users are entitled to replacement land.

Within the future Command Area 5,983 acres are presently used for agricultural production and 309 acres are used for residential purposes. There are 603 clearly visible structures and it can be assumed that most of the land is used as pasture. Based on the available data for average farm sizes per household and average household sizes in the Spinwam and Mir Ali Tehsil, this suggests that 603 households might face physical displacement risks and 6,877 households economic displacement risks. To further validate these data, a sample survey of 55 was conducted by FORT and provided the insights below.

Demography: All households belong to the Thori Khel subtribes of the Wazirs. The households have on average 11.7 members i.e. more than the average 9.1 members in the two Tehsils. Fifty-one percent of them are between 15 and 45 years. 15 percent of them have finished primary school or higher levels of education.

Housing: Thirty-three percent indicated to have a kacha house, 45 percent a house between kacha and pacca and 22 percent a pacca house covering on average 0.2 acres each. On average these houses have 4.5 rooms, which is below the local average. Each compound has one kitchen, one bathroom and one latrine.

Agriculture: All households indicated that agriculture is their main source of income. On average they claim to have permanent user rights to 17 acres of land per household of which 5.5 acres is used for agricultural production, while the rest is used for production of fodder. This is significantly higher than the local average of 0.91 acres of agricultural land per household.

Livestock: On average households possess 18 chickens, 6.5 goats, 3.8 sheep, 1.8 cows, 0.5 buffalos, 0.5 oxen and 0.5 donkeys.

Other incomes: Only 3 percent indicate that they have sources of income other than agriculture, but 80 percent indicate that they receive remittances from household members working in other parts of Pakistan or abroad.

In case of relocation: Sixty-seven percent would like to remain in North Waziristan of whom half insist on relocating close to their present location, 22 percent would like to move to Bannu, and 1 percent would like to move to the site proposed by WAPDA for resettlement from Component 2.

4.4.2.2 Entitlements

Taking into account the potential impacts, the entitlements of the affected people as well as the absence of detailed design and/or a land allocation strategy, the starting point is a scenario in which all structures will need to be relocated and all agricultural land be compensated in cash. This would lead to a rather significant land acquisition budget as shown in the table below.

Items	Unit costs (PKR)	Numbers	Total (PKR)
Residential land	1,554,292/acre	309	480,742,516
Agricultural land	1,287,504/acre	8,651	11,138,197,104
Worsho etc.	833,834/acre	13,765	11,477,725,010
Residential structures	800/square feet	623	467,250,000
Trees	4,000	12,501	50,004,000
Communal infrastructure	20% of residential		93,450,000
Resettlement Site Development	10% of residential		46,725,000
Moving, transition & connection Allowances	120,000 per HH	623	74,760,000
Transition Allowance	100,000/acre per year	8,651	865,100,000
Replacement Land Preparation Allowance	200,000/acre	8,651	1,730,200,000
Training in irrigation agriculture	10,000 per person	26,289	262,890,000
Irrigation start up package	100,000 per HH	6,877	687,700,000
Vulnerable people (5% of transition allowance)			43,255,000
Total costs of land acquisition for Subcomponent I.4 Sheratalla			27,417,998,630

This budget can be significantly reduced if the FATA Department of Irrigation:

- Plans the tertiary canals in a way that avoids all structures, and
- Provides land for land compensation to all permanent right holders of agricultural land as well as for the land owned by the clans.

Based on a transition period of one year, the optimized budget would be significantly lower and assure that benefits are provided to the local Wazirs.

Items	Unit costs (PKR)	Numbers	Total (PKR)
Residential land	1,554,292/acre	0	Avoid
Agricultural land	1,287,504/acre	2,668	In kind
Worsho etc.	833,834/acre	1,588	In Kind
Residential structures	800/square feet	0	Avoid
Trees	4,000	2,366	50,004,000
Communal infrastructure	20% of residential	0	Avoid
Resettlement Site Development	10% of residential	0	Avoid
Moving, transition & connection Allowances	120,000 per HH	0	Avoid
Transition Allowance	100,000/acre per year	8,651	865,100,000
Replacement Land Preparation Allowance	200,000/acre	8,651	1,730,200,000
Training in irrigation agriculture	10,000 per person	26,289	262,890,000
Irrigation start up package	100,000 per HH	6,877	687,700,000
Vulnerable people (5% of transition allowance)			43,255,000
Total costs for land acquisition of Subcomponent I.4 (Sheratalla)			3,639,149,000

Before commencement of construction the RAP would need to be amended based on:

- The final design;
- A census and asset inventory of the affected people;
- Updated compensation rates;

- Review and acceptance of the amended RAP by the Panel of Experts; and
- The disbursement of the compensation, allowances and assistance to the affected people via bank transfer to the heads of the affected households.

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5 ELIGIBILITY AND ENTITLEMENTS

5.1 General Structure of Entitlements

The displaced persons belong to one of the following three groups:

- Those who have formal legal rights (including customary and traditional rights recognized in Pakistan). These are the clans who traditionally own all lands without improvements (e.g. preparation for agriculture) in Component I;
- Those who do not have formal legal rights at the time the census begins but have recognizable rights or claims to the land (user rights), improvements (preparation for agriculture) and/or the assets on the land (buildings, trees). In the Component I area, this group of people can be further subdivided into: (i) those people who have permanent user rights to agricultural and residential land and assets; and (ii) those that have temporary user rights to land, improvements and/or assets (e.g. lessees, tenants); and,
- Those who have no recognizable legal right or claim to the land, improvement or assets they are occupying. In the KTDP region, these are internal and external refugees, i.e. “squatters”.

Persons covered under the first two bullet points are entitled to compensation for land and improvements they lose, allowances for associated costs and livelihood restoration assistance if applicable.

Persons covered under the last bullet point are entitled to resettlement assistance rather than compensation for the land they occupy, compensation for improvements and assets, allowances for associated costs and livelihood restoration assistance, if applicable and if they occupy the project area prior to a cut-off date i.e. the time of the census. Persons who encroach on the area after the cut-off date are usually not entitled to compensation for assets they do not own formally or informally.

Entitlements include the following categories:

- Compensation is provided by KTDP in conformance with Pakistani law and international standards to offset loss of recognized or recognizable land, improvements and assets. Compensation may be provided either in cash or in kind (provision of a resettlement house to offset the loss of a house or a similar amount and quantity of land to replace productive land lost).
- Allowances are generally provided in cash to offset disturbances, inconveniences and costs associated with the displacement and resettlement process.
- Livelihood restoration assistance is provided to support PAPs to restore livelihoods affected by Project land acquisition activities to the extent livelihoods are affected. Livelihood restoration is generally delivered in kind and/or in the form of various services, including training and capacity building.
- Supplemental assistance to different categories of vulnerable people so they can restore their pre-project standard of living and livelihood.

5.1.1 Eligibility and Entitlement Matrix

Entitlements for each type of impact are presented in Table 5-1.

Table 5-1: Eligibility and Entitlements Matrix

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
LAND				
Tribal ownership of land	In the FATA: At the time of census mutually recognized as clan holding a specific territory in the footprint Settled areas: At the time of census mutually recognized as customary owner of undeveloped land in the footprint	<ul style="list-style-type: none"> • FATA: Replacement land in new Command areas <u>or</u> cash compensation for all un-developed land (worsho and Zangal/forest at local replacement value: paid to clan Jirga based on annually updated rates • Settled areas: Cash compensation for undeveloped land at replacement value (updated annually) paid into community treasury 	<u>Land Transfer allowance</u> 22 % of market value in cash covering all administrative fees related to the purchase or provision of replacement land	N/A
Agricultural land	In both FATA and Settled Areas At the time of the census (cut-off date), hold formal land title OR be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land	Preferred Option where Incomes are Land-based: <ul style="list-style-type: none"> • Replacement land of similar size and quality in new Command Areas provided to households. If rain-fed land is replaced with irrigated land, the area might be smaller because irrigated land is more productive. If the overall land holding of the affected household is less than 1 acre, the household receives replacement land of 1 acre. OR • Cash compensation at replacement value provided to individual PAP, if the PAP for example wants to move out of project area, has a non-land based livelihood, has additional landholdings above 2 acres per household that are not affected and/or loses less than 10% of his productive land, known to the resettlement committee as landlord. 	Regardless of whether compensation is in-kind or in-cash: <u>Land Transfer Allowance</u> 22% of market value in cash <u>Replacement land preparation allowance</u> paid in cash to affected household, based on the cost of preparing the replacement agricultural land based on KTDP survey and updated annually	N/A
Residential land or Commercial land	At the time of the census (cut-off date), hold formal registered title OR be recognized by local community and/or resettlement committee as owner of affected land or having permanent user rights to affected land.	Preferred Option : <ul style="list-style-type: none"> • Replacement plot of similar size and characteristics at a location acceptable to PAP. OR • Cash compensation at replacement value, if the PAP for example wants to move out of project area, has an additional house not affected by the project, loses less than 202% of his house/compound and prefers to shift his property back 	Regardless of whether compensation is in-kind or in-cash: <u>Land Transfer Allowance</u> 22% of market value in cash	N/A
Land Use				
Peasant owner & Peasant – permanent right holder of agricultural land	At the time of the census be recognized by local community and/or resettlement committee as peasant-owner/peasant-permanent right holder	N/A	<u>Peasant Transition Allowance</u> As most replacement agricultural land will only become available 2-3 years after the original agricultural land has been taken, the affected household waiting for replacement land will receive at	<ul style="list-style-type: none"> • Training in irrigated agriculture for each household member between 15 and 45 in household • Equipment; • Inputs (seeds) for one

Table 5-1: Eligibility and Entitlements Matrix

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
			every harvest season the average yield for the lost plot considering the most valuable crop has been planted and average yields achieved based on survey from KTDP	year <ul style="list-style-type: none"> • Technical assistance • Access to credit
Tenant of agricultural land	At the time of the census (cut-off date), be recognized by local community and/or resettlement committee as the tenant of an affected agricultural land Tenants from the same households as the peasant-owner/permanent right holder of the land they are renting are not entitled	N/A	<u>Land tenancy replacement allowance</u> The tenant is expected to find himself replacement land. After a new plot has been identified, one year of average rental fee is paid directly to the land owner, with KTDP witnessing the transaction	<ul style="list-style-type: none"> • Training in irrigated agriculture for each person between 15 and 45 in household • Equipment; • Inputs (seeds .) for one year • Technical assistance • Access to credit
Agricultural Encroacher/Squatter Landless farmworker	Encroacher, farmworkers from the same households as the peasant-owner/permanent right holder of the land they are encroaching on are not entitled	N/A	<u>Self-relocation allowance</u> covering one year of agricultural income (revised every year based on KTDP study)	<ul style="list-style-type: none"> • Training in irrigated agriculture for each person between 15 and 45 in household
Annual crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected annual crop, regardless of land ownership status	<u>Compensation for annual crops</u> per KTDP rates, revised annually, if crop cannot be harvested before the land is required for development -- For crops in association, percentages of each crop in the mix to be estimated on a case-by-case basis by sampling crop densities in at least three different locations within the affected plot and averaged to establish the overall proportions of the different crops in the mix, which are further applied to the relevant rate to establish an average rate for the mix -- A share of the crop compensation may be allocated to the land owner/landlord/permanent user right holder based on distribution percentages agreed on in the lease agreement		N/A

Table 5-1: Eligibility and Entitlements Matrix

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
Perennial crops	At the time of the census, be recognized by local community and/or resettlement committee as the owner or permanent right holder of an affected perennial crop, regardless of land ownership status	<p><u>Compensation for perennial crops</u> per KTDP rates, revised annually plus seedlings. Trees are categorized as:</p> <ul style="list-style-type: none"> - Saplings - Mature productive. - Old 	N/A	N/A
Structures, buildings, houses.				
Residential House: Titled owner or recognized permanent right holder	<p>Household that at the time of the census (cut-off date), holds formal title OR be recognized by local community, and/or resettlement committee as owner or permanent right holder of house.</p> <p>- Polygamous families are considered as one household even if they live separated, but as all other households they receive a replacement house for each house they lose. So if they have 3 houses for three wives, they will receive three houses</p>	<p>Preferred Option</p> <ul style="list-style-type: none"> - Each house owned by a household is compensated in-kind by a Replacement house on a serviced residential plot of similar size, similar area with equal or better construction materials. - Houses with four rooms or less are replaced by houses with 4 rooms - Houses with more than ten rooms are replaced by a house of ten rooms and the additional rooms are compensated in cash at 10% of the market value of the overall house - Compensation in cash for any additional infrastructure (e.g. separate kitchen, storage rooms, fences, well on property) - Non-moveable special features can be compensated in cash on a case-by-case basis (examples: tile floor, running water in the house) - Salvaging of materials of affected structure <p>OR</p> <p>Cash compensation at replacement value based on KTDP's replacement rates for inhabitable structures, if the household wishes to relocate on his own and after presenting a rent agreement or preliminary ownership title, if the household loses less than 25% of his house/compound and can renovate the not affected part, if the household can demonstrate that he just shifts the house out of the way of linear infrastructure but has sufficient land to stay in-situ</p>	<p><u>Connection Allowance</u> PKR 20,000 (in 2013) per house for electric and other utility hook-ups, administrative registration fees.</p> <p>For house owners renting out part or all of the house to people outside their household: <u>Allowance for lost rental income</u> equivalent to six months of rent established by KTDP survey and updated annually</p>	N/A
Owner residents Permanent right holder residents	<p>Resident Household that at the time of the census, holds formal title and reside in the affected house OR be recognized by local community, and/or resettlement committee as permanent right holder and resident.</p>	N/A	<p><u>Moving allowance</u> (PKR 50,000 in 2013) regardless of the compensation option selected</p> <p><u>Transition allowance</u> (PKR 50,000 in 2013) regardless of compensation option selected</p>	N/A
Tenancy or free-of-charge occupation of a	Be found at the time of the census to be renting or occupying free of charge a	N/A	<p><u>Rental re-establishment allowance</u> equal to 6 months of</p>	N/A

Table 5-1: Eligibility and Entitlements Matrix

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
residential house	residential house owned by somebody from a distinct household. Intra-household tenancy or intra-household free-of-charge occupation is not eligible (e.g., somebody declaring their children or other household members as free tenants while such children belong to the same household – refer to definition of household)		rent of a one room apartment of usual standard in Bannu times the number of rooms occupied in the affected house by the affected household – price based on annual surveys of rental prices in Bannu. AND <u>Moving allowance</u> (PKR 50,000 per household in 2013) AND <u>Transition allowance</u> (PKR 50,000 in 2013) regardless of compensation option selected	
Ownership/permanent rights holder over a commercial (non-residential) building and/or other infrastructure	At the time of the census, have title or be recognized by local community and/or resettlement committee as owner of a commercial structure or as permanent right holder of this structure	Replacement Structure on a serviced residential plot of similar size, similar area with equal or better construction materials OR Cash compensation at replacement value based on KTDP's replacement rates for non-residential buildings and/or other infrastructure	- For owners/permanent right holders renting out part or all of the non-residential building: <u>Allowance for lost rental income</u> equivalent to 12 months of rent	N/A
Businesses	At the time of the census, be recognized as owner of an affected business, i.e. a business operating, regardless of land ownership status (i.e., the landowner may be a different individual).	N/A	<u>Allowance for loss of business income during the re-establishment period</u> , equal to 3 months of net income, revised annually, or to PKR 50,000, if no reliable estimate of net income can be carried out	<u>Eligibility of each household member between 15 and 45 to one livelihood restoration package</u>
Business employees	At the time of the census, either have a recognized formal full-time employment contract with an affected business owner, or be recognized by the census and validated by the Resettlement Committee as an informal full-time employee of an affected business	N/A	<u>Reimburse salary for period of relocation and reestablishment</u> . <u>Allowance for loss of income during the business re-establishment period or for termination of contract</u> , equal either to three months of net income as evidenced by pay documentation, or to PKR 30,000 per employee if no pay	<u>Eligibility of each household member of employee between 15 and 45 to one livelihood restoration package if employee loses job</u>

Table 5-1: Eligibility and Entitlements Matrix

Affected asset or right	Eligibility Conditions	Entitlements		
		Compensation	Allowances	Livelihood Restoration
			documentation is available	
Communal building (shrines, guest house, school, meeting place, communal distribute network for water or electricity, solar panels, cemetery)	Be the recognized formal or in-formal owner of communal building If building is considered as cultural heritage see cultural heritage preservation plan for KTDP	Either reconstruction based on an agreement with the community using the communal building, or compensation in cash based either on the categorization applicable to structures or on case-by-case valuation, plus bonus 50%.	<u>Allowances for any ceremonies</u> needed to relocate of infrastructure with living cultural value (graves), based on a reasonable request from the community, group or individual associated to building.	N/A
Vulnerable People	Meet at least one of the criteria (gender, age, handicapped)	N/A	<u>Case by case</u>	<u>Case by case</u>

Notes:

- **Land Transfer allowance** to cover costs associated with registering the new land: 22 % of market value of land in cash to cover the 15% Compulsory Acquisition Charge, the 2% CVT, the 2% Stamp duty, the 2% TMA Tax, the Mutation fees and other associated costs.
- **Replacement house standard:** a) Concrete floor, ceilings, brick partitions, internal doors, metallic entry door, metallic windows with glass panes, b) improved construction materials (fired earth or concrete bricks), c) concrete roof, d) improved finish (inside and outside plaster), e) double ventilated improved pit latrine, concrete slab, brick superstructure, f) electrical pre-cabling, g) access to electricity and water (public tap or hand pump) h) house electricity connections and meters to be paid for by PAPs.
- During the surveys less than 1 percent of the houses were found to have more than 10 rooms.

6 VALUATION OF COMPENSATION FOR LOSSES

As highlighted previously this RAP distinguishes between compensation for expropriated assets and rehabilitation measures to help improve, or at least restore, incomes or standards of living. To compensate project affected people (PAPs) for expropriated assets, the RAP requires actual replacement of expropriated assets, or, if requested with good reason, compensation at replacement cost and alternative rehabilitation measures acceptable to the PAPs.

For households with land-based livelihoods who lose a significant portion of their holdings, this RAP gives preference to land-based strategies in line with the World Bank's OP 4.12 that states that "these strategies may include resettlement on public land, or on private land acquired or purchased for resettlement. Whenever replacement land is offered, resettled persons are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken" (OP 4.12 para. 11). Payment of cash compensation may be appropriate "where (a) livelihoods are land based but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets" (OP 4.12 para. 12).¹⁵

Key principles of replacement costs include:

- Replacement cost addresses tangible assets only;
- Replacement cost includes all administrative fees (here the 22 percent land transfer allowance);
- Replacement cost includes a provision for inflation if payments are delayed (KTDP will update all replacement costs on a yearly basis); and,
- Potential project benefits are not counted toward replacement cost (i.e. the potential to benefit from irrigation cannot be deducted from the replacement cost of the land acquired).

6.1 Land

Determining replacement cost of affected land is fairly easy where active land markets exist as one can engage private and independent real estate agencies, banks, or mortgage firms to determine market prices or evaluate the adequacy of administratively set compensation. The Frontier Organization for Reforms and Transformation (FORT) that was tasked to establish replacement costs obtained data from the two Tehsils in North Waziristan (Mir Ali and Spinwam). The data were not consistent due to the fact that the local land market is not very active and people do not have land titles so do not document transactions. The following methods were used to provide substantiated results:

- Sales comparison: Sales of similar, vacant parcels are analyzed, compared, and adjusted to provide a value indication for the land being appraised.
- Proportional Relationship: Relating a site to a known standard site, in this case transactions in the settled areas.
- Land Residual Technique: It is assumed that the land is improved to its highest and best use. All operating expenses and the return attributable to other agents of production are deducted, and the net income imputed to the land is capitalized to derive an estimate of land value.
- Allocation: Sales of improved properties are analyzed, and the prices paid are allocated between the land and the improvements.

¹⁵ "Replacement cost' is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard" (OP 4.12 endnote 11).

- Extraction: Land value is estimated by subtracting the estimated value of the depreciated improvements from the known sale price of the property.

The data in the following table represents the overall average for the project region and will need to be updated and adjusted on an annual basis upon consultation with the Compensation Rate Review Committee.

Land categories	Market Value 2013 (PKR per acre)	Replacement Costs (PKR per acre)
Residential Land	1,274,009	1,554,292
Gardens	1,260,908	1,538,308
Bari: irrigated, well manured land situated near a village	1,241,994	1,515,232
Sholgara: Land near water sources (springs, rivulet, streams)	1,182,114	1,442,179
Saadin: un-irrigated rain-fed land;	888,594	1,084,084
Ghar: Land situated in the mountains	908,622	1,108,518
Worsho: Undeveloped land	683,471	833,834

The average market value for land has been established by FORT based on the methodology outlined above and using the approach outlined in Annex 3 of the RPF based on interviews with the land revenue officials at the three lowest administrative levels of the area affected by the project as well as 25 documented land transactions. The Replacement Costs factor in the Land Transfer Costs of 22 percent as discussed in the entitlement matrix (i.e. the 15% Compulsory Acquisition Charge, the 2% CVT, the 2% stamp duty, the 2% TMA Tax, the mutation frees and other associated cost).

6.2 Crops

6.2.1 Annual Crops

Regardless of land ownership, farmers owning an affected crop receive compensation in cash for:

- The market value of crops that cannot be harvested prior to impacts to land. Losses of non-perennial crops are surveyed and compensation rates calculated shortly before land acquisition takes place (not at the time of the original household census and asset survey). The compensation is calculated as the amount of production lost (area taken multiplied by yield of crop planted) multiplied by the market value at the mid-point between harvests. Changes in land use after the Cut-Off Date are generally not considered.
- In instances where the farmer will not be able to plant his fields because of planned project land acquisition and replacement land is not yet available, the farmer will be paid the value of his or her crop, as defined above, for the entire period that land has been taken and not replaced.
- In cases where the timing of land acquisition is such that the farmer will not have time to prepare the replacement agricultural land for the following agricultural season, two seasons of crops (Rabi/Kharif) may be taken into consideration in the compensation calculation.

Compensation rates are based on selling prices between Rabi and Kharif observed in the Bannu markets (market surveys carried out by KTDP) and data collected from interviews with local farmers. They will be updated on an annual basis and consulted upon with the Compensation Rate Review Committee. The table only presents the main crops.

Annual crops	Annual profit in PKR per acre
Rabi (Sept-April)	
Wheat	36,084
Oilseeds	23,450

Kharif (April-Sept)	
Rice	73,710
Maize	19,584
Sugarcane	18,000
Fodders	17,500



Plate 6-1: Market Surveys in Spinwam

6.2.2 Perennial Crops

The calculation of the full replacement value for perennial crops (e.g., fruit trees) requires consideration not only of the production of the crop over the period from when the asset is taken to when a replacement sapling comes into production, but also the cost of re-establishing the crop (seedlings, soil preparation, fertilizer). Replacement saplings are usually provided. The calculation of the full replacement value for perennial crops (e.g., fruit trees) requires consideration not only of the production of the crop over one year, but also the cost of re-establishing the crop (seedlings, soil preparation, fertilizer), as well as the lost income during the period needed to re-establish the crop.

Perennial crops are inventoried at the time of the household census and asset inventory. Market values of the produce for each of the most common fruit trees in the area are collected and rates are updated annually. Rates are calculated for the following stages of tree development:

- Seedling.
- Mature.
- Old.

The following table provides an example of compensation rates for common trees.

Type of perennial crop	Replacement value Seedling in PKR	Replacement value of Mature tree in PKR	Replacement value of old tree in PKR
Grapes	100	1,000	1,000
Guava	300	4,000	4,000
Dates	200	3,000	3,000
Firewood	500	5,000	5,000

6.2.3 Landowner/Tenant Crop Compensation Breakdown

Tenants will be paid the compensation value for the crop they have grown, whether a non-perennial or a perennial crop. However, as the land is held under rights by another person – who may or may not have been involved in the preparation of the land – the compensation may need to be shared with the land owner/permanent right holder. Amongst others, this is intended to provide an incentive for land owners/permanent right holders to accept to rent their land out, thereby facilitating tenant access to land. In line with international best practice, two thirds of the crop compensation will be provided to the tenant (crop owner) and one third to the land owner/permanent right holder.

6.3 Structures

6.3.1 Compensation for Residential Structures

As indicated in the entitlement matrix preference is given to in-kind compensation for residential structures. The resettlement house option is generally much more advantageous to PAPs but the cash option may be suitable for non-residential owners and to some who, for example, wish to move to an urban center. These options apply to owners of residential houses, regardless of their residential status (whether they live in the affected house or not). For purpose of cash compensation calculation, residential houses will be categorized as follows, regardless of their current condition.

Table 6-4: Replacement values of residential structures in PKR per square feet

Type	PKR	Annual Rent in Bannu (PKR)
Kacha: Walls of unfired bricks or clay, roof of logs with clay cover, earth floor and any residential structure of lower standard	200	2.6
Between Kacha and Pacca: Walls of fired bricks or stones, roof of logs with clay cover, earth floor.	400	3.7
Pacca: Walls of stone, concrete roof and concrete floors	800	6.2
Compound: Enclosure	150	1.8

The replacement value of the house is established by multiplying its measured surface area by the replacement rate (PKR/ft²). Any interior finishing is an additional compensation. The rate, as with other compensation rates, is adjusted annually to reflect inflation.

6.3.2 Other residential structures

Non-residential structures including latrines, sheds of various kinds, dish racks, kitchens, fences, wells are compensated in cash at full replacement value. The available data suggest the following lump sum cash compensation for the following types of structures:

Table 6-5: Replacement value of other Residential Structures

Type	Replacement value in PKR (lump sum)
Animal pens (of various types)	20,000
Wells in compound area	20,000
Latrine	10,000
Kitchen	20,000
Bath room	20,000

6.3.3 Business structures

No business structures have been detected among the affected structures.

6.3.4 Communal infrastructure

Based on the available data the following replacement costs have been established for communal infrastructure. This will need to be verified and ground truthed as soon as the infrastructure can be visited by a qualified valuator:

Table 6-6: Replacement value of Communal Infrastructure

Type	Lump sum Replacement Value in PKR
School	10,000,000
Clinic	20,000,000
Meeting place (Hijrga)	5,000,000
Police office	2,000,000
Community Meeting Halls/Town Hall	2,000,000
Community Guest House	2,000,000
Agricultural Depots	500,000

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Markets	1.000.000
Communal Electric Lines	1.000.000
Communal Water supply	1.000.000
Communal roads	1.000.000/mile

From the available data no communal structures with living cultural use is affected. Nevertheless, it is likely that during construction of the canals graves could be impacted. If the graves are older than 1913 they will need to be addressed in accordance with the Cultural Heritage Preservation Plan for the KTDP. In particular shrines/graveyards have been observed to be quite elaborated structures. Shrines established after 1913 are compensated in cash at replacement cost based on a case-by-case valuation. The relocation of a shrine may, however, entail other costs than that of the structure itself. Ceremonies may need to be held to allow for the relocation of the structure and the spiritual powers it serves. For shrines, the KTDP shall cover the cost of these ceremonies as agreed with the Resettlement Committee or relevant traditional authorities with whom KTDP has engaged to agree to the relocation of a culturally significant site. The cost of ceremonies shall be assessed on a case-by-case basis, based on reasonable requests by the community using the shrine.

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7 COMMUNITY PARTICIPATION

Participation is conventionally divided into two dimensions information exchange and decision making, each of which in turn has two component activities. Information exchange conventionally comprises dissemination and consultation. Decision making comprises collaboration and direct extension of choice to affected individuals, households, or communities. Participation includes, on this view, four levels or types of activities:

- “Dissemination” refers to the one-way transfer of information, in this case, from the consultants to the affected population. Providing early and accurate information to PAPs allays fears, dispels misconceptions, and builds trust, providing a foundation for collaboration between PAPs and KTDP.
- “Consultation” refers to two-way transfer of information or joint discussions. Systematic consultation implies a sharing of ideas. Experience shows that consultation often yields the best resettlement alternatives, fruitful procedures for continued participation, and independent information on actual conditions or implementation.
- “Collaboration” refers to joint decision making through membership in committees, tribunals, or other formal or informal bodies. The PAPs and their representatives not only are consulted but also have a voice in decision making.
- “Extension of choice” refers to the transfer of decision making power to the people affected (for example, providing PAPs with options for their relocation and livelihood rehabilitation, among which they choose).

Participation, in this sense, involves empowerment and represents a step by which PAPs resume responsibility for their lives. Since resettlement is one of the most delicate and potentially volatile segments of any development project an in-depth and participatory process of public and community consultations were put in place to develop this RAP and the associated RPF. The baseline condition for this were not good, as the ongoing insurgency described in Section 2.8 made it impossible to conduct larger consultation sessions in the settlements and required that they be conducted off-site in the nearest city, Bannu. The result was that not all community members were involved in the consultation process.

The approach that was used followed the traditional setting of sending delegates to meetings without any decision power beyond acting as messengers. These representatives from the clans, sub-tribes and villages were voluntarily nominated along with the administration appointed Maliks (a kind of liaison officer between the Political Agents and the jirgas of the clans, sub-tribes etc.). Most consultations were conducted by MWH’s sub-consultants, ACE and FORT, and supported by representatives from FATA, WAPDA as well as the local administration. A total of 16 large and small sessions were held:

List of RAP Consultations held for Component I

Table 7-1: RAP Consultations held for Component I			
Date	Venue	Participants	Issues Discussed
Sessions for Tribal Land Ownership			
September 18, 2013	Office of the Divisional Commissioner, Bannu	25 Maliks and Tribal Representatives besides other WAPDA and government officials	<ul style="list-style-type: none"> • Identification and demarcation of tribal and individual land ownership in Component I • Local community support to project and its related studies • Demands for involvement of locals in construction phase of project
October 8, 2013	ACE Office, Bannu	20 Maliks and Tribal Representatives from Madee and Mir Ali Sub	<ul style="list-style-type: none"> • Identification of land ownership • Resolution of land ownership

Table 7-1: RAP Consultations held for Component I			
Date	Venue	Participants	Issues Discussed
		Tribes as well as other WAPDA and government officials	disputes • Tribal rivalries
Sessions for Land Owners in Kaitu Weir Area			
October 7, 2013	ACE Office, Bannu	8 community representatives from Kaitu Weir Area	• Identification of land ownership
October 8, 2013	ACE Office, Bannu	5 community representatives from Kaitu Weir Area	• Identification of farmers and cultivators of the land and formulation of strategy to list all land users
October 9, 2013	ACE Office, Bannu	7 community representatives from Kaitu Weir Area	• Initiating the listing of cultivators and land users of Kaitu Reservoir area
October 10, 2013	ACE Office, Bannu	21 community representatives from Kaitu Weir Area	• Identification and verification of land owners in Kaitu Weir and Reservoir areas
October 11, 2013	ACE Office, Bannu	14 community representatives from Kaitu Weir Area	• Finalization of land users and cultivators in Kaitu area
October 24, 2013	ACE Office, Bannu	11 community representatives from Kaitu Weir Area	• Final sign-off and verification of list of land users and cultivators in Kaitu area
Sessions for Owners of Structures in Component I			
October 8, 2013	ACE Office, Bannu	5 community representatives from Component I areas	• Preliminary identification of household owners
October 10, 2013	ACE Office, Bannu	9 community representatives from Component I areas	• Identification of home and household owners
October 11, 2013	ACE Office, Bannu	10 community representatives from Component I areas	• Finalization of list of home and household owners in Component I areas
October 24, 2013	ACE Office, Bannu	11 community representatives from Component I areas	• Verification and sign-off on list of home and household owners in Component I areas
Sessions for Land Owners in Component I			
October 24, 2013	ACE Office, Bannu	11 community representatives	• Initial identification of farm ownership and cropping patterns
November 4, 2013	ACE Office, Bannu	5 community representatives	• Identification of farms and land users in Component I areas
November 5, 2013	ACE Office, Bannu	25 community representatives	Finalization of list of farm owners and land users in Component I areas
November 7, 2013	ACE Office, Bannu	8 community representatives	• Verification and sign-off on list of farm owners and land users in Component I areas
Jirgas and Consultation Sessions on valuation issues			
October 7, 2013	Mir Ali	Chief Malik of North Waziristan, Qadir Khan, and other important tribal leaders	Overall tribal support to the project and its studies
October 16,	Mir Ali	Malik and	• Land ownership and identification

Table 7-1: RAP Consultations held for Component I			
Date	Venue	Participants	Issues Discussed
2013		Representatives of Tori Khel Tribe	of household owners in component areas
October 21, 2013	Mir Ali	Maliks and representatives of Kabul Khel Tribe	<ul style="list-style-type: none">• Resolution of tribal land ownership disputes• Identification and verification of land and household ownership

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8 ORGANIZATIONAL AND INSTITUTIONAL SETTING AND DELIVERY MECHANISM

Following international best practice this RAPs provides in what follows an analysis of the institutional framework for operations and the definition of organizational responsibilities. This analysis of the institutional framework covers the following areas:

- The identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation;
- An assessment of the institutional capacity of such agencies and NGOs; and,
- Any steps that are proposed to enhance the institutional capacity of agencies and NGOs responsible for resettlement implementation (see OP 4.12 Annex A, para. 8).

The organizational framework established from this and which forms the core of every RAP identifies the agencies responsible for delivery of resettlement measures and provision of services; arrangements to ensure appropriate coordination between agencies and jurisdictions involved in implementation; and any measures (including technical assistance) needed to strengthen the implementing agencies' capacity to design and carry out resettlement activities; provisions for the transfer to local authorities or resettled persons themselves of responsibility for managing facilities and services provided under the project and for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.

The RAP for KTDP's Component I will be implemented by a number of actors described below.

8.1 WAPDA

The Water and Power Development Authority (WAPDA) was established as an autonomous body in 1959 with a purpose to lay focus on investigation, planning and execution of irrigation, drainage, prevention of water logging and reclamation for saline land. The organization worked on development of water sources, management of river water and irrigation systems. WAPDA over the years went through a mammoth growth in size as well as development of various wings and departments to deal with water resource development. Led by WAPDA Authority, it is comprised of the Power Wing and the Water Wing. In 2007 local power distribution was outsourced by establishing the Pakistan Electric Power Company (PEPCO) which runs nine regional distribution companies called DISCOs, while the National Transmission Dispatch Company (NTDC) deals with national level distribution (how much power to which region). Environmental and social issues are mostly addressed through the Water Wing as the Power Wing focuses on production and has consequently limited interaction with people and the environment. The various distribution companies have similarly limited interaction as they access land and resources through the Telegraph Act i.e. without the need to engage with affected people and/or offer compensation.

Within the Water Wing, Member Water, assisted by General Managers, Chief Engineers and senior and junior staff is responsible for the planning and implementation of all hydropower development projects. Projects located in Khyber Pakhtunkhwa – including but not limited to the KTDP - are overseen by the General Manager (Projects) North. He is assisted by the General Manager (Technical Services), General Manager (Land Acquisition and Resettlement), and WAPDA's Environment Cell (WEC). The last two are significantly under-resourced and therefore generally not able to engage actively in the implementation of projects and have focused their attention in the past mostly on supervision and high-level guidance. The RAP suggests using the same approach. To assist WAPDA to effectively supervise land acquisition and resettlement the capacity enhancement activities outlined below will be conducted.

8.2 FATA

The FATA Secretariat, established in 2002, consists of the Secretary FATA and, since 2006, an Additional Chief Secretary, four Secretaries and seven Departments headed by Directors. Among

them, the Social Sector Department is tasked with land acquisition and resettlement as well as interaction with vulnerable groups and peoples.

Each of the tribal agencies (in the KTDP Area North Waziristan) is administered by a political agent, assisted by number of assistant political agents (each in charge of a Subdivision), Tehsildars (administrative heads of tehsil) and Naib Tehsildar (deputy Tehsildar), members from local police (khasadars) and security forces (levies, scouts). Political agents in the Tribal Agencies oversee the working of line departments and service providers. Their focus is on handling inter-tribal disputes and political issues. They also have a supervising role in development projects and chair the development subcommittee. Nevertheless, their focus is on political issues and therefore their experience, and capability, in dealing with land issues and resettlement issues is often limited. They will therefore benefit from capacity enhancement and backstopping in order to supervise the land acquisition process in North Waziristan effectively.

8.3 Directorate of Irrigation FATA

The Directorate of Irrigation of the FATA has been involved in developing and managing surface and ground water resources as well as undertaking flood mitigation measures. It is headed by a Director, who has a representative in each agency. The main functions of the department are to utilize available water in an efficient use for irrigation to achieve high intensity of irrigation, construct storage reservoir at flood nullahs for utilization of barren land for agriculture, tap small to medium hydro power potential, explore ground water potential, and make best use through dug wells/tube wells for land beyond the command of perennial source. In addition to this work, the department manages the flood flows in rivers by designing of flood protection works to protect land. The department has been striving to introduce new technologies through promotion of high efficiency system of irrigation such as drip and sprinkler irrigation. Nevertheless, they have little experience in creating large scale Command Areas in line with international land acquisition standards and therefore will require capacity enhancement and backstopping to supervise the establishment of the two Command Areas in Component I effectively.

8.4 Intuitional Arrangements for RAP Implementation

8.4.1 Project Management Unit (PMU)

The KTDP will be implemented under the General Manager (Projects) North of WAPDA and overall supervision of Member Water Wing through a Project Management Unit (PMU) that assembles national and international experts and includes a Department for Land Acquisition and Resettlement (LAR). While formally reporting to the Managing Director of the PMU, the LAR will benefit from a close collaboration and from strategic advice provided by a Steering Committee comprising a) the WAPDA General Manager for Land Acquisition and Resettlement, b) the Assistant Political Agent for North Waziristan as well as c) representatives of the funding agencies.

8.4.2 Land Acquisition Unit (LAU)

The RAP will be implemented by the Land Acquisition Unit (LAU) established by hiring at least five national land acquisition and resettlement experts under the supervision of the PMU.

8.4.3 Resettlement Supervision Committee (RSC)

The objective of the Resettlement Committee (RSC) is to assure the smooth communication between the LAU and the PAPs. For Component I there will be three RSCs:

- The first RSC focuses on the territory south of Spinwam, which is mostly inhabited by four clans of the Thuri Khel sub-tribe: Mir Ali, Babali, Shogi and Shameeri and will consist of:
 - The Assistant Political Agent for the Mir Ali Subdivision
 - Land acquisition and Resettlement Manager of the LAU
 - Social Specialist of the LAU

- Project Engineer of the Project Management Unit (PMU)
- Malik for the Thuri Khel Sub-tribe and
- Four lungi holders communicating with the four clans.

- The second RSC focuses on the territory north of Spinwam, which is mostly inhabited by three clans of the Kabul Khel sub-tribe (Saif Ali, Issa Khel and Misman Khel) and will consist of:
 - The Assistant Political Agent for the Mir Ali Subdivision;
 - Land acquisition and Resettlement Manager of the LAU;
 - Social Specialist of the LAU;
 - Project Engineer of the Project Management Unit (PMU);
 - Malik for the Kabul Khel Sub-tribe; and ,
 - Three lungi holders communicating with the three clans.

- The third RSC focuses on the transmission line, which is mostly inhabited by the Ahmadzai, Momand Khel and Asperka sub-tribes and will consist of:
 - The Assistant Political Agent for FR Bannu
 - Land acquisition and Resettlement Manager of the LAU
 - Social Specialist of the LAU
 - Project Engineer of the Project Management Unit (PMU) and
 - three Malik for the three sub-tribes

The Committee and/or its members shall assist LAU and/or its consultants in the following tasks:

- Supervising supplementary household census and asset inventory, particularly identifying and verifying ownership and customary land owners/users;
- Helping in discussing key issues;
- Discussing potential resettlement site locations and visiting them during the RAP preparation period to advise on selection;
- Facilitate the free, prior and informed consultations with the PAPs through jirgas in order to obtain the consent of the affected people for the RAP;
- Participating in the allocation of land at resettlement sites;
- Advise on resettlement site planning and resettlement housing design;
- Witnessing compensation payments;
- Identifying vulnerable households in the community; and,
- Receiving and conveying grievances.

The Resettlement Committee may form sub-committees to address the needs of specific groups such as women, vulnerable people, seasonal farmers and transhumant pastoralists, if any. The KTDP pays a modest per diem to compensate lost time for transport, communication and effort.

8.4.4 Panel of Experts

Given the scale and significance of resettlement issues in the KTDP, the use of a panel of independent, reputed resettlement experts to design the resettlement program should help capture international best practice. The Panel of Experts also helps to ensure that the actions described in the RAP are appropriately implemented. Such expertise is routinely employed in projects involving large scale resettlement. The use of such panels in the planning stage helps a resettlement program improve substantially, as demonstrated by the impressive preparation of the resettlement components of the Ghazi Barotha Hydropower Project in Pakistan. The reports from the panel of experts should be made public after the draft report is revised to take into account the initial comments of the project agency.

To assure alignment with international standards, the LAU shall be supported by a panel of three international land acquisition experts that undertake inspection missions at least four times every

year to the PMU, LAU and the project region to review the progress made against the RAP for Component I and the RPF.

Three experts are proposed in line with best practice (one international land acquisition expert with experience of working in tribal areas, an environmental experts and an engineer). See for more details and terms of reference for such panel of experts Chapter 2 of EA and Chapter 2 of EMMP.

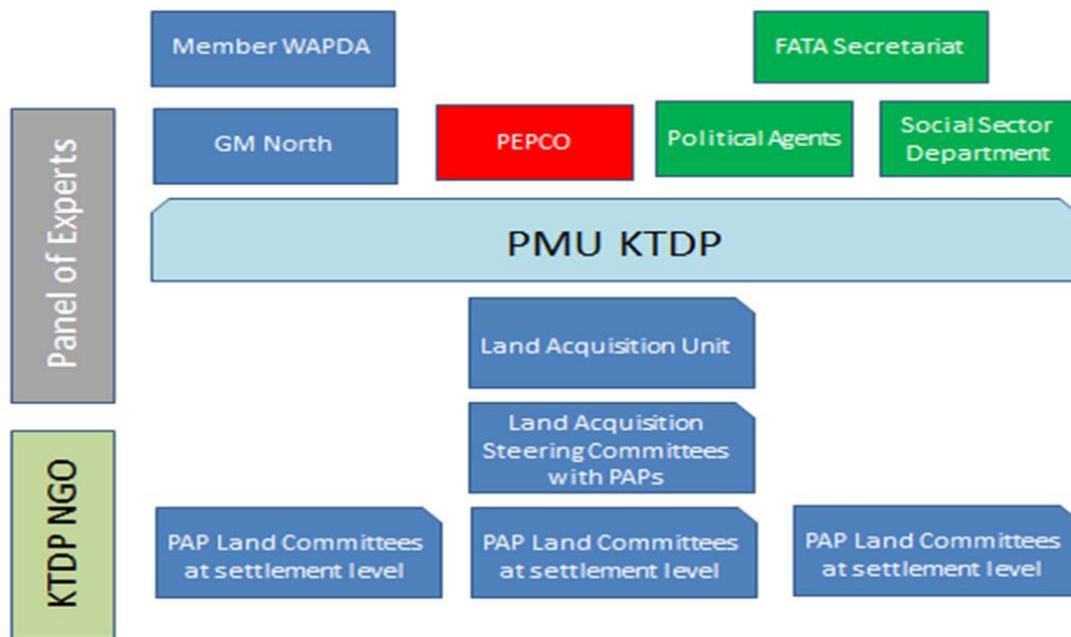


Figure 8-1: Institutional Arrangements

8.5 Key Consultation Avenues

8.5.1 Resettlement Committees

A Resettlement Committee shall be established in each community that is affected by physical and/or economic displacement. It shall be constituted through preliminary discussions with the Jirga. The Resettlement Committee shall be comprised of representatives from different segments of the community. The affected people recommended that the following people should form the resettlement committees:

- Maliks and Lungi holders.
- Mullahs.
- Elders or designated spokespersons appointed by the Jirga.

The Committee and/or its members shall assist LAU and the RSC and/or its consultants in the following tasks:

- Conducting household census and asset inventory, particularly identifying and verifying ownership and customary land owners/users;
- Helping in publicizing the existence of restrictions once the Cut-Off Date has been established;
- Discussing potential resettlement site locations and visiting them during the RAP preparation period to advise on selection;
- Participating in the allocation of land at resettlement sites;
- Advise on resettlement site planning and resettlement housing design;
- Witnessing compensation payments;
- Identifying vulnerable households in the community; and,

- Receiving and conveying grievances.

The Resettlement Committee may form sub-committees to address the needs of specific groups such as women, vulnerable people or seasonal farmers. KTDP shall pay a modest per diem to compensate lost time for transport, communication and effort.

8.5.2 Host Community Committees

Where residents of a displaced village or neighborhood are relocated to or close to an area where others are already living, a Host Community Committee will be established to discuss, take into account and help resolve issues that might arise from the additional demands on infrastructure and other public goods that would result from resettlement. A Host Community Committee shall be established in each community that receives physically and/or economically displaced people. It shall be constituted through preliminary discussions with the Jirga. The Host Community Committee shall consist of representatives from different segments of the community. While the ultimate decision on selection and appointment of committee members will lie with the affected community, it is recommended that the Committee should include:

- Maliks and Lungi holders.
- Mullahs.
- Elders or designated spoke people appointed by the Jirga.
- Representatives of the resettled persons or resettled persons to be. Nominated by mutual consensus.

8.5.3 Compensation Rate Review Committee

The Compensation Rate Review Committee is a consultative organ, which provides advice to the project proponent on the adequacy of compensation and allowance rates. It shall be formed by selecting members of Resettlement Committees from within one administrative unit (tehsils). The Compensation Rate Review Committee reviews proposed compensation and allowance eligibility criteria, rates, and annual updates thereof (further to annual inflation surveys and updates described below. The Compensation Rate Review Committee meets at least once a year, at the time when annual updates are available (towards the end of the year).

8.5.4 Procedures for Establishing Consultation Committees

In order to set up and operationalize the consultation committees described above, the procedure shown in the following table shall be followed.

Table 8-1: Steps to establish Consultation Committees

Task	
1.	a) Define scope of the committee to include: <ul style="list-style-type: none"> • Frequency of meetings, topics covered, level of authority and decision-making • Desired profile of members • Income or stipend to be paid and by whom b) Consult on and agree to the scope with affected community members
2.	a) Identify members of the committee b) Community to select committee members, based on recommended criteria/make-up
3.	Establish meeting frequency and ground rules
4.	a) Meet regularly during design, planning, compensation, resettlement and monitoring phases – in general once a month during active phases of resettlement and compensation, and more when required b) Every meeting to be preceded by the communication of an agenda by KTDP to the Committee
5.	Organize tasks in which the Committee's contribution is needed, such as: <ul style="list-style-type: none"> • Witnessing household census/asset inventory and asset sign-off • Publicizing an Interdiction Zone • Witnessing compensation payments and resettlement/livelihood processes
6.	Provide feedback to committee during monitoring
7.	Respond to Committee requests and grievances

8.5.5 Documentation and Reporting of Stakeholder Engagement

The KTDP LAU is the primary interlocutor of the committees, coordinate meeting schedules, and ensure that information is transmitted to the committees and vice versa. Committees or community members shall sign an attendance sheet, and signed records and witnessed minutes of all formal consultation proceedings, such as the meetings of a Resettlement Committee shall be kept on file.

KTDP's LAU shall maintain consolidated records of all consultations in the form of a matrix that includes, at a minimum: dates of key meetings, categories (and if available, names) of attendees, the LAU responsible parties, key issues and concerns, outcomes, commitments or follow-up. For each ongoing RAP process, the LAU will report regularly on the following:

- Types and numbers of consultation meetings held.
- Key commitments made and accomplished.
- Notable changes or additions to stakeholders, particularly changes in the composition of resettlement committees or attendance at community/public meetings.
- Key issues that need to be brought to the attention of KTDP management.

8.6 Capacity enhancement and backstopping

The World Bank and other multilateral financial institutions acknowledge that acquiring land in line with international standards requires technical support and they are therefore always open to provide support as follows:

- Assistance to assess and strengthen resettlement policies, strategies, legal frameworks, and specific plans at a country, regional, or sectoral level;
- Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations; and,
- Financing of technical assistance for developing resettlement policies, strategies, and specific plans, and for implementation, monitoring, and evaluation of resettlement activities” (see OP 4.12 para. 32).

Quality land acquisition training is not available in the vicinity of the KTDP or even within Pakistan, and sending all the people who need training to international centers may be impractical. Therefore project-level training is recommended as the main instrument for capacity enhancement. Some or all of this training can be provided by personnel from international centers such as the Resettlement Centre at the Hohai University in Nanjing, by personnel from qualified NGOs, or by international land acquisition specialists as part of project preparation. Similarly, local or regional specialists or NGOs involved in specific aspects of resettlement, such as microenterprise development or community irrigation management, can be called on to familiarize resettlement staff with key issues and methods. These topics can also be included in the project launch workshop. The project resettlement specialist or consultants can provide training for resettlement staff, including field personnel.

Another activity should be a carefully structured study tour of projects in Pakistan. Sending resettlement staff to similar projects in the country can be an inexpensive yet effective way of building resettlement capacity. Study tours also give people an opportunity to not only see field conditions in another project, but also speak with colleagues elsewhere about implementation issues. Such interactions are particularly useful, because practitioners are involved in the exchanges, and the context, problems, and issues are likely to be similar.

Training makes an important contribution to institutional capacity. Training activities should complement and support each other. The training should be appropriate for the intended audience. Senior managers are concerned with policy issues and have little interest in field problems; whereas

resettlement staff is consumed by implementation issues but believe they have little influence on policy concerns. One recurring mistake is to provide policy training to field staff, but no operational training. Another is to provide policy orientation to senior managers, while giving no training to staff tasked with actual implementation.

An effective training program emphasizes policy training for senior management and operational training for resettlement staff. In many instances, project preparation grants or technical assistance funds can be used to pay for training abroad, in international centers, or in the project.

8.7 NGOs Supporting the PAPs

The role and responsibility of nongovernmental organizations (NGOs) and civil society organizations (CSO) in the Hydropower and infrastructure Sector have changed significantly. While originally often vocal opponents of such large infrastructure projects, some now play a very important role as “watch dogs” for all kind of issues and/or informing affected people about their rights and options and/or assist them in the decision making and relocation process. In Pakistan the Project Non-Governmental Organization, which was formed for the Ghazi Barotha Hydropower Project demonstrated that NGOs can play a vital role in during land acquisition and resettlement planning and implementation.

8.8 Monitoring and Evaluation

Good institutional design makes implementation easier, but effective monitoring ensures it stays on track. Even projects with the best RAP and exceptionally supportive organizations are likely to run into problems and issues during implementation. Timely identification and resolution of these problems are critical to achieving desired resettlement outcomes. Effective monitoring is essential. To be effective, monitoring needs to include both internal monitoring, conducted by the project agency, and external monitoring, conducted by a qualified independent agency. While internal monitoring would primarily consist of a follow-up on the quantitative aspects of resettlement implementation and focus more on processes and delivery of inputs, external monitoring focuses more broadly on outputs, outcomes, and the qualitative aspects of implementation and will need to be established when the LAU is in place. A good-practice checklist of issues for internal and external monitoring should include the elements described in the following paragraphs.

Internal Monitoring

- An internal monitoring unit is explicitly designated within the LAU and may include representatives from the government agencies, NGOs, and other agencies. Good communication with field offices, as well as coordination with other implementation agencies, is factored into the design. Internal monitoring is carried out in accordance with detailed, specific terms of reference.
- The staff of the internal monitoring unit is familiar with the design of the resettlement program.
- Staff from the internal monitoring unit receives adequate training in the framework and methodology of internal monitoring.
- The internal monitoring unit regularly receives information and data updates from field offices.
- The unit staff participates in the project launch workshop, where the key monitoring benchmarks and the reporting process are discussed and agreed upon.
- Resettlement data are collected under both household and impact categories and computerized to facilitate data processing.
- Senior decision makers explicitly agree on and commit to a process for factoring monitoring reports into decision making.

External Monitoring

- The external monitoring agency shall be agreed upon during the initial mission of the Panel of Experts. Having the same agency conduct socioeconomic surveys and external monitoring is acceptable. However, the consultants involved in resettlement planning are preferably not hired for external monitoring, as they have a vested interest in reporting smooth implementation.

- The external monitor, for example, a university, research institute, or NGO, also verifies some of the quantitative information submitted by the internal monitoring agency in the field. This aspect is sometimes overlooked because of the qualitative focus of external monitoring.
- The LAU, the panel of experts and the monitoring agency discuss the proposed methodology for external monitoring. An outline format for the external monitoring report is agreed upon and outlined in chapter 14. Such agreement helps ensure that external monitoring reports cover all elements of resettlement implementation.

9 GRIEVANCE MECHANISM

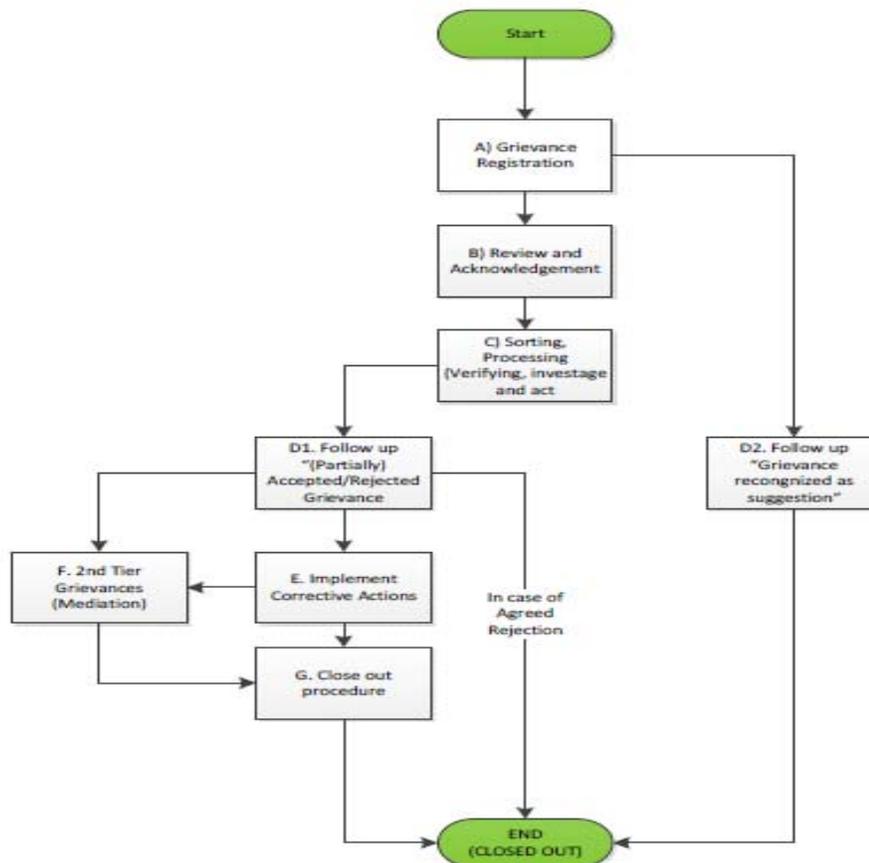
9.1 Community Grievance Management System

As part of its ongoing operations, the KTDP LAU will establish a community grievance management system (CGMS). This will be a formal and documented process to receive, assess, record and resolve grievances concerning any aspect of the performance or behavior of the KTDP, its contractors or its employees. In addition, the KTPD LAU will establish an Independent Mediation Committee (IMC) to try to resolve grievances that cannot be resolved at the local level.

The objectives of the Community Grievance Management System are to:

- Establish a consistent, transparent, accessible and credible grievance management process for individuals, households, and communities affected by the KTDP.
- Create outcomes that are considered by all parties as realistic, fair, effective, and sustainable.
- Promote and establish open and clear lines of community engagement concerning grievances.
- Manage and reduce community and company risks by effectively addressing grievances so that they can be resolved before they escalate into larger conflicts.
- In instances where solutions cannot be reached through direct dialogue with the KTDP, by using the amicable grievance/dispute resolution process or through the functioning of the Independent Mediation Committee, either party (the complainant or the KTDP) may apply to the competent Judicial Court to resolve disputes in line with applicable legislation. In disputes with community

Figure 9-1: Grievance Management System



members¹⁶, the KTDP shall refrain from recourse to the Court first unless all amicable complaint resolution mechanisms (including IMC) are exhausted. Complainants are in any event free to resort to judicial proceedings to raise or resolve a grievance, regardless of whether or how the KTDP's grievance management system or the Independent Mediation Committee might be engaged. The KTDP shall comply with all verdicts and outcomes of judicial proceedings. The following figure presents a visual overview of this process.

9.2 Stages in the CGMS

Upon receiving a complaint in verbal or written form, LAU shall log it in its internal management system, and shall provide the complainant with a written acknowledgement of receipt within seven calendar days. This acknowledgement of receipt shall include a brief summary text explaining the complaint resolution process. Unless impractical, LAU shall seek to arrive at an initial proposal for the resolution of complaint within 30 calendar days of its reception. If this time limit cannot be met, the LAU shall advise the complainant in writing that it requires additional time.

If the proposed solution is not accepted by the complainant, he or she (or a group of people, if more than one person is involved) can take their grievance to the Independent Mediation Committee, which shall seek to analyze the case and propose its solution within a further 60 days. An outline of steps in the grievance management process is shown in the table below.

Table 9-1: Principal Steps of the Grievance Management Process

Step	Description	Timeline
1	Receipt of the grievance	
2	Completion of the grievance form	
3	Entry of the complaint into the grievance database	
4	Preliminary assessment of grievance: internal evaluation of the severity of the complaint (or "Community Impact Ranking,"	
5	Written acknowledgement of the receipt of the grievance within 7 calendar days. If key information is missing from the grievance, request for further information	
6	Investigation and resolution of grievance	
7	Response letter and registration in database. If the solution is accepted, resolution (including any payments) and closure of the case	
8	If the proposal is not accepted by the complainant, referral to the Independent Mediation Committee	
9	At any stage in the process, the complainant can resort to judicial measures	

9.3 Independent Mediation Committee

The Independent Mediation Committee (IMC) is a structure that shall be established by the Project to independently and impartially resolve grievances through mediation and dispute resolution. Mediation by the IMC is only to take place in the event of complainant dissatisfaction with the initial resolution proposed by the Project through the CGMS. The IMC shall use mediation to resolve disputes or complaints submitted to it.

The IMC shall operate independently from the Project but shall have access to any information that the Project has regarding the complaint. The determinations of the IMC are non-binding on either party. The IMC shall meet on an as needed basis, in function of registered complaints and disputes, and its members shall receive a stipend from the KTDP to cover costs of attending meetings. If a solution that is acceptable to all parties emerges out of the meetings with the IMC, the grievance

¹⁶ This commitment does not apply to labor disputes and contractual disputes with contractors, amongst others.

may be considered resolved and closed out. All parties shall then be notified. If no acceptable solution is agreed upon, either party has the option of taking legal action.

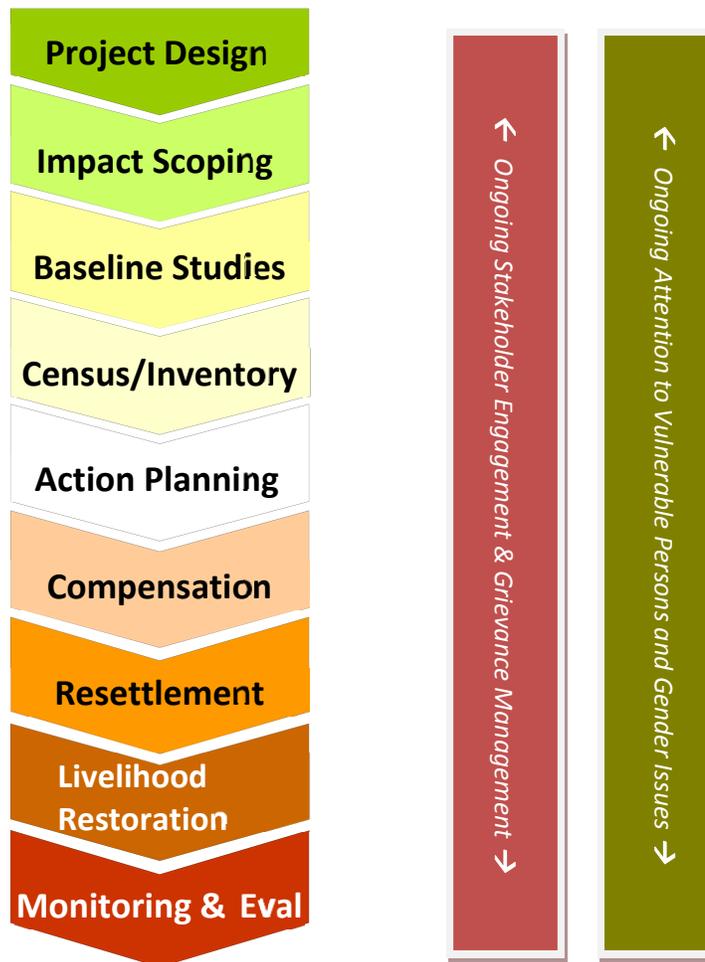
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10 IMPLEMENTATION SCHEDULE

This section provides an overview of land acquisition, compensation, resettlement, and livelihood restoration steps and processes. Figure 10-1 depicts the nine steps of preparing and carrying out land acquisition, compensation, resettlement and livelihood restoration, as well as stakeholder engagement/grievance management and vulnerable person/gender issues, shown as ongoing commitments:

- **Project Design** refers to an assessment of alternatives with the objective of avoiding or at the very least minimizing the impacts on land or land use that might result in economic and/or physical displacement. During project preparation efforts are made to minimize impacts, including assessment of different project designs.
- **Impact Scoping:** Preliminary impact scoping should take place prior to, during and after detailed project design of each Subcomponent. By identifying potential impacts early, efforts can be made to alter project design, such as adjusting the proposed routings for canals and transmission lines in order to avoid sites of cultural significance, reduce economic displacement, avoid or minimize physical displacement. Impact scoping includes preliminary consultation with PAPs. Impact scoping and alterations to project design are conducted in an iterative manner. Impact scoping shall be conducted internally by the LAU.
- **Community Social Baseline Studies.** In addition to the data collected via the individual household census and asset inventory (see next step), a Community Social Baseline Study is conducted using multiple tools, including a household questionnaire survey of a sample of affected households. These studies also provide the basis for defining compensation and for monitoring restoration of livelihoods after resettlement. Baseline studies can be started before impact scoping is fully complete and address an area slightly larger than the actual final impact area will be.
- **Household Census and Asset Inventory:** Once the footprint of the outstanding Subcomponents of Component I are known with reasonable accuracy (for each phase of proposed activities), the LAU will commission a household census and an inventory of affected assets. The purpose of both is to create an accurate baseline of affected households living or working in the area and of the existing assets (houses, infrastructure and improvements to land). During this step, a household questionnaire survey is conducted for every affected household and data on livelihoods are collected. Each household signs off on the inventory of its assets in the presence of local officials and community witnesses. The census is the basis for eligibility for compensation and/or resettlement and livelihood restoration support. The start of the census and asset inventory is the Cut-Off Date. Unauthorized activities taking place after the Cut-Off date are ineligible for compensation or resettlement/livelihood restoration. The resulting analyses will provide the information for the amended RAP or addendums to this RAP and serve as the basis for evaluating the restoration of post-resettlement livelihood restoration. During this step, vulnerable households are also identified
- **Final Resettlement Action Plan:** A Final RAP shall be developed based on the above and all households that experience physical or economic displacement shall be covered in the RAPs.

Figure 10-1: Land acquisition, Compensation and Resettlement Process



- **Compensation and allowances:** This RAP defines the principles and protocols to follow to provide appropriate compensation and allowances to individuals, households and communities affected by the KTDP's land acquisition activities. It also defines compensation rates to be paid and describe PAP eligibility and entitlement categories. The provision of compensation and allowances occurs prior to impacts actually taking place.
- **Replace Land/Resettle PAPs:** During this step – which may be prior to or concurrent with Step 6 – replacement land is identified and secured, resettlement housing is constructed, PAPs are moved into new housing, and the other commitments of the RAP are implemented. Alternatively PAPs find their own housing.
- **Construction can only start once resettlement is completed.**
- **Livelihood Restoration:** Livelihood restoration will continue for several years to ensure that it is sustainable over the long-term and this RAP defines specific livelihood restoration commitments.
- **Monitoring and Evaluation:** The social baseline study provides the basis for assessing the impact that land acquisition has had on individuals, households and communities as well as the relative success of livelihood restoration measures carried out by the KTDP after resettlement. The KTDP LAU shall carry out ongoing monitoring of people affected by physical and/or economic displacement. In addition, the KTDP shall commission a third-party resettlement expert to conduct regular independent audits of KTDP implementation of the RPF and RAPs.

II LIVELIHOOD RESTORATION

II.1 Overview

Livelihood restoration programs are implemented for people and households who are economically displaced by project activities to ensure that their livelihoods are improved or at least restored to their levels before resettlement. The main livelihood restoration program is obviously the provision of replacement land in the new Command Areas as well as training in irrigation agriculture.

The KTDP LAU shall monitor livelihood restoration programs and make changes as necessary in order to ensure that the programs provide the expected benefits. Livelihood restoration packages shall be made available to each economically displaced household, including:

- An irrigated agricultural enhancement package,
- An income generation package to be selected from four different options.

The following income generation packages are proposed:

- Animal production.
- Vegetable production.
- Income generating activities (more intended for women):
 - Food processing and catering.
 - Sewing/Tailoring.
- Vocational training/scholarships.

II.2 Eligibility

Each economically displaced household¹⁷ is eligible for income generation packages for each household member between 15 and 45.

For all programs, eligibility is subject to formal voluntary enrollment. Households that neglect to enroll are not eligible. Eligibility is subject to additional conditions, as follows:

- Sustained attendance of courses;
- Use of allocated benefits (such as equipment or fertilizers) for the intended purpose; and,
- Participation in a group, particularly for income generation, where certain benefits (e.g. training) will be delivered only to groups.

The KTDP may therefore exclude households who do not meet these conditions for eligibility, subject to adequate notice and consultation with the household themselves and the relevant Resettlement Committee.

II.3 Irrigated Agricultural Enhancement Package

The irrigated agricultural enhancement package is intended to restore or improve those household income streams that are based on subsistence agriculture and to provide the affected people with access to benefits from enhanced land productivity based on the supply of irrigation water. The livelihoods of the overwhelming majority of economically displaced households are dependent upon agriculture and transhumant pastoralism in varying proportions. Therefore, all economically displaced households shall be eligible for this package. The agricultural enhancement package includes the following:

- Support to land replacement per provisions in the Entitlement Matrix (see Section 5.1.1).

¹⁷ Including households that are both physically and economically displaced.

- A practical training course on irrigated agricultural techniques, which includes the use of water management, improved seed varieties, fertilization, small-scale irrigation, animal traction, other equipment, and post-harvest grain storage and conservation.
- Eligibility for micro-finance funds to invest in farm equipment, with final selection based on fulfillment of selection criteria established by a participating bank or NGO.
- Facilitation of access to farming inputs, including fertilizers and improved seeds.
- Provision of a small equipment package.
- Extension services and related monitoring for three years, or until an external auditor determines that livelihoods have been sustainably restored (whichever comes later).

11.4 Income Generation Packages

11.4.1 Small Animal Breeding

Eligibility is subject to voluntary enrollment and participation in a group of beneficiaries, whether formal or informal. Other conditions include:

- Sustained attendance at training courses;
- Use of the allocated benefits for the intended purpose; and,
- Construction of an adequate shelter for the animals based on KTDP extension staff guidance.

Benefits are allocated to individuals meeting eligibility conditions, as follows:

- Five young female goats per individual plus one male per group;
- Animal feed for the first three months;
- Periodic vaccinations of all animals for the first year;
- Training course and periodic refreshers over three years, including both technical (sanitary, nutrition, reproduction) and business aspects (business planning, keeping records, marketing);
- Veterinary monitoring for three years; and
- Small equipment, including, for example, reasonable quantities of meshing (see below)

11.4.2 Vegetable Production

Eligibility is subject to voluntary enrollment and participation in a group of beneficiaries, whether formal or informal. Other conditions include:

- Sustained attendance at training courses;
- Use of the allocated benefits for the intended purpose; and,
- Preparation of a garden including identification of a suitable piece of land, soil preparation, construction of a basic water supply and storage facility, and of a fence, with the KTDP's agronomist's guidance.

Benefits are allocated to individuals meeting eligibility conditions, as follows:

- Provide fencing material (based on the amount required for one hectare per household);
- One irrigation motor pump per group;
- Treatment equipment (sprayer);
- Improved seeds of selected crops for the first year;
- Facilitation of access to farming inputs, including fertilizers, improved seeds and treatment products.
- Training course and periodic refreshers over three years, including both technical (use of improved techniques, spacing, plant protection, water needs and irrigation, processing and marketing) and business aspects (business planning, keeping records, marketing); and,
- Small equipment, including for example reasonable quantities of mesh fencing, hoes, spades and other similar small equipment.

11.4.3 Food Processing / Catering and Sewing/Tailoring

Eligibility is subject to voluntary enrollment and participation in a group of beneficiaries, whether formal or informal. Other conditions include:

- Sustained attendance at training courses;
- Use of the allocated benefits for the intended purpose.

Benefits are allocated to individuals meeting eligibility conditions, as follows:

- Food processing
 - Grinding, milling, or drying equipment (at group level), to be determined according to the type of production intended by the group;
 - Cooking equipment (at individual level);
 - Consumables for three months;
 - Training courses, including hygiene, food processing techniques, business planning, marketing;
 - Periodic technical assistance and assistance to marketing for three years; and,
 - Monitoring of livelihood restoration.
- Sewing/Tailoring
 - One sewing machine per beneficiary;
 - Consumables (e.g. fabric) for three months;
 - Training courses, including technical aspects, business planning, marketing;
 - Periodic technical assistance and assistance to marketing for three years; and,
 - Monitoring of livelihood restoration.

11.4.4 Vocational Training/Scholarships

Eligibility is subject to voluntary enrollment and sustained attendance at the selected curriculum for its whole duration. Scholarships are intended to cover the cost of training (tuition fees and any equipment to be provided by the trainee) and part of the cost of accommodation during the training if the training is held in a location different from the usual residence of the trainee.

Eligible curricula are determined by the KTDP LAU in liaison with training institutions. Five to eight curricula, between 6 and 12 months in duration, are available at reputable training institutions in the region. Formal agreements shall pass between the KTDP and the eligible training institution for every trainee. Tuition fees shall be paid directly by the KTDP to the training institution, according to a mutually agreed upon schedule of payment. The accommodation allowance shall preferably be paid directly by the KTDP to the person or business providing accommodation or directly to the trainee in instances where the former proves impractical. Irregular attendance or disciplinary issues may result in the discontinuation of the KTDP support.

Eligible curricula will vary, but may include (tentative list):

- Construction related training: carpentry, masonry, electricity, plumbing;
- Welding;
- Catering and hospitality;
- Sewing and tailoring; and,
- Agricultural training.

11.5 Linkage with Broader Social Development Activities

The KTDP shall implement a comprehensive social development program in the areas of health, education and economic development. Restoration of livelihoods per activities described above is a commitment to all PAPs and to PAPs only. PAPs will in addition be able to participate in the KTDP's social and economic development programs, particularly the following:

- Micro-credit and small enterprise development;
- Income-generating activities, including agriculture improvement programs;
- Health services, outreach and education; and,
- Capacity-building and education.

12 IDENTIFICATION OF AND SUPPORT TO VULNERABLE HOUSEHOLDS

12.1 Identification of Vulnerable Households

Studies suggest that the following vulnerable groups are present in the project region:

Women: Waziristan is male dominated and women enjoy almost no rights. For example women do not inherit property (Ahmed 1983:27)¹⁸. At the age of 10, girls are prepared for marriage (Roe 2010: 38) and for a bride-price of about PKR 10-40,000. The bride-price, which is handed over by the family of her husband to her father and parts of it need to be refunded if the wife “does not perform according to tradition” i.e. does not obey the rules of her husband and his family, does not give birth to sons, does not conduct more or less all domestic works including collecting firewood, vegetable growing. In 2011 the human rights organization “Khwendo Kor” released a report that suggests that women in the FATA are more susceptible to violence and abuse, that there is an increase in honor killings in which women were first raped and since the rape was considered a disgrace to the family later murdered and that the role of women in society has further decreased in the context of the “Talibanization” of the FATA. While traditionally Wazir women “enjoy superior freedom to other frontier tribes and that adulterous affairs were not uncommon”, it needs to be noted that “any women found to be unfaithful was likely to be put to death or have her nose amputated” (Roe 2010: 37/38)¹⁹. A group commonly exposed to severe marginalization are female-headed households (widows, wives of migrant workers) that are formally considered as part of the households of their relatives (mostly the brothers of their husbands) and that have no formal or culturally acceptable access to land and property and/or participation in decision making processes. In short, women are significantly marginalized in the societies of the project region, need to be considered vulnerable and should benefit from specific measures so as not to be specifically adversely affected by the project and/or have access to the project benefits.

Households with low income: Low income households have fewer resources to cope with change. They are less likely to have savings and access to credit and more likely to have lower education levels. This category also includes orphans, who on the basis of their circumstances lack the financial and moral support of their parent(s).

Physical /mental health and disability: Disabled people are vulnerable in terms of participation in decision-making and access to employment opportunities. Disabled people may also experience varying levels of social exclusion and community marginalization. Commonly rural societies have found a way to integrate them into their daily routines, but tend to neglect the specific needs of people with special challenges in situations of stress such as physical and economical displacement.

People with no legal land titles: In the project area those could include households who are affected by the project but whose ownership or usufruct rights are not registered or otherwise supported by documentation and/or recognized under the dominant customary system, thereby putting them at risk of not receiving compensation (this may include informal tenants and sharecroppers, and other bona fide occupiers with no legal recognition/squatters).

Ex-combatant: It is known that Mir Ali in North Waziristan is used as refuge by combatants from the conflicts in the region including some that do not have legal papers permitting them to live in Pakistan and/or that have contravened laws and might for various reasons face severe problems (fines, arrests) if they enter non-FATA areas.

¹⁸ Ahmed, A.S.; 1983; Resistance and Control in Pakistan; Cambridge: Cambridge University Press.

¹⁹ Roe, A.M.; 2010; Waging War in Waziristan: The British Struggle in the Land of Bin Laden; University of Kansas.

Elderly: Experience show that elderly people commonly have problems coping with involuntary changes and/or adapting to new situations and require special care and support in adapting to new environments and livelihood patterns.

12.2 Potential Assistance Activities to Vulnerable Households

KTDP's assistance to vulnerable households affected by land acquisition and resettlement shall include the following measures:

- Identification of vulnerable households and identification of the cause and impacts of their vulnerability, either through direct interviews by a Project social worker and/or relevant Community Liaison Officer' (CLO) together with the Resettlement Committee;
- Identification of required additional assistance at the various stages of the process: negotiation, compensation, moving;
- Monitoring and continuation of assistance after resettlement and/or additional compensation, if required; and,
- Other specialized assistance, depending upon vulnerable households' requests and needs.

Specifically the KTDP shall assist identified vulnerable people in the moving process by providing them with transport services (their personal belongings are transported in KTDP vehicles to the resettlement site). Vulnerable people are also specifically assisted in the impact identification (census) and compensation processes. Experience has shown that working through cooperation with Resettlement Committees was a key for success in land acquisition projects in Pakistan.

12.3 Monitoring of Vulnerable Households

The LAU will establish a special monitoring program to assess the progress of assistance to vulnerable households during the resettlement process. This program seeks to augment other monitoring processes implemented during resettlement and led by the Resettlement Committee and key community members.

The LAU will monitor the status of households who were identified as vulnerable before relocation for at least three years after they have been resettled or until all PAPs have restored their incomes to at least pre-project levels. In Project Year (PY) I (starting from the day of expropriation), monitoring shall take place on a quarterly basis and shall include semi-annual interviews with all vulnerable persons. After PY I, annual interviews shall be conducted for the following two years. Key information that shall be gathered and reported internally includes the following:

- Total number of identified vulnerable households per RAP;
- Case-by-case census of vulnerable households;
- Type(s) of vulnerability;
- Type(s) of assistance provided;
- Efforts to restore livelihoods, social networks and standards of living; and,
- Vulnerable households who have been unable to restore livelihoods, social networks and/or standard of living

Records shall be kept of all data on vulnerable households and updated and stored in the Project's database.

12.4 Summary of Procedures for Addressing the Needs of Vulnerable Households

Resettlement Committees will assist in the identification of vulnerable households and the definition of assistance activities. The following process will take place, as outlined in the following table.

Table 12-1: Procedures for Identifying and Supporting Vulnerable Households

Tasks

Kurram Tangi Dam Project
Resettlement Action Plan Component I

1	Staffing: Designate and train responsible LAU staff in charge of assistance to vulnerable households
2	Refine vulnerable people criteria for each LAU (if necessary)
3	Inform Resettlement Committee on their tasks with respect to vulnerable households and structure and guide the Committee's role
4	Define and finalize assistance entitlement for all households, including vulnerable ones
5	Identify eligible vulnerable households: <ul style="list-style-type: none"> • Pre-screening: Develop initial list with Resettlement Committee and other parties as relevant • Screening: Assess in an interview with household at their home whether pre-screened households qualify as "vulnerable" and devise individualized assistance measures • Obtain approval in KTDP for recommended measures • Finalize list and assistance measures with Resettlement Committee
6	Communicate proposed measures to identified vulnerable people and amend if needed
7	Provide assistance as appropriate at each stage of land acquisition or resettlement
8	Monitor and evaluate to ensure that vulnerable households are restoring or improving livelihoods and standards of living, and if monitoring indicates that assistance is not achieving restoration of livelihoods and standard of living, reassess/retarget assistance
9	Reporting: Provide information internally – and report externally as appropriate

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13 GENDER ISSUES

13.1 Principles

The KTDP is committed to ensuring gender equity in entitlements and project benefits throughout the resettlement process, in line with international standards. This RAP provides measures to ensure that women and men receive equitable compensation for assets and share equitably in the related livelihood support programs. Key principles that guide KTDP's gender equity strategy (see for more details KTDP's Gender Plan) comprise the following:

- Including women in the planning, decision-making, and compensation process during the resettlement of communities;
- Promoting women's and girls' economic rights and opportunities through programs that build their capabilities and help them to build their livelihoods;
- Ensuring that essential public services like health and education benefit women, men, girls and boys equitably;
- Supporting vulnerable households, particularly female-headed households and widows, throughout the resettlement process;
- Collecting and analyzing gender-disaggregated data in the Project-Affected Area; and,
- Ensuring that women's rights are protected in particular with respect to compensation for assets and ownership of property.

13.2 Gender Equity Procedures

Steps that the KTDP LAU shall follow to ensure gender equity in compensation and resettlement processes include the following:

- Consult separately with women when making decisions about where resettlement communities will be located, how houses will be designed (especially kitchens) and how the location meets needs such as access to resources (such as water or fuel), which might be particularly important for women;
- Ensure that women are represented on all decision-making committees, if acceptable;
- Ascertain ownership of affected assets in a manner that is sensitive to the rights of women if this is acceptable;
- In situations where the inventoried head of household passes away between the census and the actual payment of compensation, restrict eligibility to those household members that were identified at the Cut-Off Date, review the situation following traditional succession rules, involve the relevant resettlement committees, and ensure that the outcome is not disproportionately detrimental to female members of the household;
- Take account of gender in livelihood restoration packages; and
- Categorize female-headed households as vulnerable.

13.3 Key Actions Outlined in the Gender Plan that are Relevant to Land Acquisition

It is hoped that the dedicated awareness and capacity building, together with information dissemination and community health and education programs, will gradually allow for community acceptance to engage women in further interventions for livelihoods and income-generating activities. The WAPDA Gender Team, with the help of local village committees, will assist in designing new programs for skills development and livelihoods opportunities that could involve women in the project area.

Feasible livelihood training may include: home vegetable gardens, livestock, water and sanitation, small businesses, and other "home-based" income-generating activities. Further, training and microcredit for livelihood packages such as kitchen gardening, bee-keeping, poultry-rearing and other livelihood sources would be arranged for women within the Capacity and Livelihood Development Programs prepared by the PRO, possibly in collaboration with Khawenda Kor or

another organization with such experience. The following targeted activities are included in the Income Restoration and Livelihood Development Programs:

- Kitchen gardens appears to a very viable option for livelihood restoration as most agricultural activities regarding kitchen gardening are managed by women in the project area. They grow vegetables on available land around their houses. Training on enhancing agricultural yields will be imparted to women by local officials. The project will assist in developing terrace agriculture at new resettlement sites, as well as in the Component I area. Good quality seeds and fertilizers would be introduced and provided to women. Vegetable, nursery, and other measures of enhancing crop production, and new types of fodder can be initiated from the onset.
- Livestock has a traditional, social and cultural significance in the project area. It also constitutes one of the major sources of income. The project will provide for a Livestock Centre to assist people in vaccinating, de-worming, and other necessary treatments. The project will organize training for men, who will in turn train women in the households. Further, poor/vulnerable and female-headed households will be provided with livestock, including poultry, to secure an income.
- Community/village-based workshops or informal gatherings focused on skills development of interest to women in the project area (as expressed in the gender survey) will be arranged for women when the environment is supportive enough to conduct such workshops.
- A common and typically found skill among women in the project area is stitching. Sewing is an accepted type of livelihoods support for women and is in demand. The project will make provisions for sewing machines for women as a source of home-based income generation. This will create further goodwill towards the project, and also contribute to the esteem of village women as well as the project. A vocational center with some machines and a teacher in each of the resettled villages could be one practical approach, or a mobile training center that could travel between villages can be envisaged. The Bannu Office of Khawenda Kor communicated that they have recently set-up such a vocational center in Shewa with ten machines and a teacher at a recurring cost of around PKR 60,000 per month.
- A microcredit facility could be promoted by the project through linkages to commercial banks in the project area. The Agriculture Development Bank has been giving micro credit to farmers; the Gender Team could potentially organize area women in setting up micro-credit facilities on behalf of the project.

14 MONITORING AND EVALUATION

14.1 Overview of the Monitoring Framework

Monitoring of resettlement and compensation activities is conducted both internally and externally.

Internal monitoring focuses on inputs and outputs. Internal monitoring uses indicators built into the KTDP's management systems (particularly progress indicators) and replicate socio-economic surveys conducted either by KTDP's LAU staff or consultants.

External monitoring focuses on processes and outcomes. It uses the findings of internal monitoring and is also based on separate, external investigations. External monitoring consists of periodic monitoring, and completion audits for each successive phase of resettlement / compensation. External monitoring findings can be disclosed to external stakeholders, as appropriate.

As part of this RAP, KTDP management commits to implement internal and external monitoring activities described in the following sections. In addition, separate monitoring activities are also relevant to resettlement and compensation activities:

- KTDP's activities shall be monitored by regulators for compliance with Pakistani regulations. This shall include, but is not limited to, compliance with environmental, health and safety, labor, and compensation / land acquisition regulations; and,
- The KTDP's social performance, including resettlement and compensation, shall also be monitored independently as part of its overall commitment to social responsibility.

14.2 Internal Monitoring

14.2.1 Overview

KTDP internal monitoring addresses a range of input and output indicators pertaining to the following aspects:

- Progress monitoring (compensation, land acquisition, construction, livelihood restoration activities);
- Technical monitoring of resettlement sites: supervision of infrastructure and housing construction where relevant, commissioning and testing of the technical components of the resettlement housing, monitoring of the effectiveness of water supply, waste management, power supply, erosion, and condition of houses and infrastructure;
- Social and economic monitoring:
 - Cost of housing in the displacement area, potential land speculation.
 - Percentage of resettlement compensation spent on productive assets, environmental and health standards, livelihood restoration including agriculture, small businesses, employment and other activities;
- Monitoring of Vulnerable People; And,
- Grievance Monitoring: Monitoring of the effectiveness of the grievance management system as well as using an ongoing analysis of grievances as a form of feedback on KTDP's social and environmental performance, in an effort to detect and prevent the development of grievances into broader or more acute problems or conflicts.

14.2.2 Indicators and Frequency of Internal Monitoring and Reporting

During the active phase of resettlement, the Lau shall monitor and report internally on several indicators on a quarterly and annual basis. Findings shall be benchmarked against baseline studies carried out before resettlement. Key progress indicators shall be measured internally by the LAU on a quarterly basis. The collected data shall be reported in an annual monitoring report, and can be reported internally on a more frequent basis if warranted.

Quarterly Progress Indicators:

- Numbers of households and individuals economically and physically displaced.
- Amount of land affected.
- Number of farmers who have identified replacement land.
- Number of resettlement houses completed: sites acquired; house designs accepted; houses completed; and, finally, title provided.
- Numbers of houses taken possession of by resettled people.
- Grievances (open, pending, closed).
- Number of grievances by severity; average number of days for resolution.
- Amounts of compensation paid per category (structures, land, crops, others).
- Inflation rates (via monthly market survey).
- Stakeholder engagement activities designed to ensure that the population is informed and consulted.

Repeat socio-economic surveys shall be undertaken three years and five years after the move of physically displaced people, or at any such time as determined by the external auditor to provide data for external monitoring and the completion audit. These surveys shall capture socio-economic quality of life indicators (see below) and livelihood restoration indicators. Questionnaires used in replicate surveys shall be consistent with those used to describe the baseline situation to allow for comparison.

Repeat Socio-Economic Survey Indicators:

- Income and income streams.
- Assessment of household expenditures.
- Changes in the cost of living and/or income and expenditures patterns.
- Surface area of land holdings.
- Crops and estimated or observed yields.
- The extent that perennial crops have been replanted.
- Livestock numbers (by species), equipment and other assets.
- Number of unemployed people in the households.
- Number of children attending school.
- Health of the household.
- Extent to which social networks and status have been reestablished.
- PAP degree of satisfaction with compensation and resettlement process.
- Attitude survey of host community.

The results of internal monitoring, in particular related to livelihoods, employment and education, shall be discussed and acted on by all relevant units of KTDP. If corrective measures require longer-term attention and follow-up, appropriate actions shall be incorporated into the LAU Annual Work Plan for the following year.

14.3 External Monitoring

The KTDP shall hire an external social auditor with significant experience in resettlement to carry out an annual review²⁰ assessing compliance with commitments contained in this RAP.

Objectives of these yearly reviews are as follows:

- To assess overall compliance with the RAP, RPF and other commitments related to mitigation of physical and economic displacement.

²⁰ External audits are conducted annually after resettlement until the auditor determines that the RAP is complete, typically 3 to 5 years after resettlement impacts.

- To assess the extent to which the quality of life and livelihoods of affected communities are restored and enhanced.
- To provide recommendations to improve RAP implementation and address any gaps.
- To determine when the Completion Audit will take place.

External monitoring reports shall be prepared independently by the external auditor and submitted to KTDP Management. Any outstanding issues, shortcomings or oversights identified in these external monitoring reports shall be fed into follow-up actions and, if longer term in nature, the following year's Work Plan for the KTDP's LAU.

14.4 Completion Audit

The purpose of the Completion Audit is to verify whether the KTDP has complied with resettlement commitments defined in the RAP, RPF and more generally whether compliance with applicable guidelines has been achieved. The Completion Audit ascertains if livelihood restoration as well as restoration of housing is complete for physically and economically displaced communities. The audit is undertaken after all RAP mitigation measures and inputs, including compensation and development initiatives, are complete, but well before the end of operations. The timing of the audit should allow time for corrective actions, if any, recommended by the auditors before the Project is complete. Completion audits typically take place three to five years after resettlement.

Reference documents for the Completion Audit are the following:

- Resettlement Policy Framework.
- The socio-economic baseline relevant to the RAP.
- Resettlement Action Plans.

The Completion Audit has the following specific objectives:

- General assessment of the implementation of the RAP against the objectives and methods set forth in the RAP.
- Assessment of compliance of implementation with applicable international policies.
- Assessment of the fairness, adequacy and promptness of the compensation and resettlement procedures as implemented.
- Evaluation of the impact of the compensation and resettlement program on livelihood restoration, measured through income, employment, assets (e.g. land, houses, businesses, livestock), productivity of land and crop yields, health, education and access to services, social and cultural factors, with an emphasis on the requirement that PAPs be left no worse off, and ideally better off, as a result of displacement.
- Identification of potential corrective actions necessary to mitigate the negative impacts of the program, if any, and to enhance its positive impacts.

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15 COSTS AND BUDGET

International best practice requires project budgets to reflect resettlement costs as accurately and as transparently as possible: “The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project. The costs of resettlement, like the costs of other project activities, are treated as a charge against the economic benefits of the project; and any net benefits to resettled persons (as compared to the ‘without-project’ circumstances) are added to the benefits stream of the project. Resettlement components or free-standing resettlement projects need not be economically viable on their own, but they should be cost-effective” (OP 4.12, para. 20). OP 4.12 further specifies that the resettlement plan will present the detail on costs and financing sources: “Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies”.

Because land acquisition involves complex and contingent processes, developing cost estimates and budgets is not always easy. The key question for the KTDP is the uncertainty of how many people opt for replacement land and therefore do not require cash compensation. In addition, the security situation did not permit valuation of communal structures.

Nonetheless, adequate estimates and budgets need to be prepared based on the best information available at the time of RAP preparation. In essence, adequate budgets require (a) estimates that, on balance, fall within a reasonable margin of error; and (b) reasonable contingency arrangements. Resettlement budgets for specific projects will vary according to the scope and complexity of the resettlement measures. Nonetheless, for the purposes of preliminary planning, average resettlement expenses for other projects may be useful. On average World Bank-supported hydropower project teams estimated at appraisal that resettlement costs would amount to 8–9 percent of overall project costs, whereas their project completion reports indicate an average of roughly 11 percent.

Table 15-1: Overall budgets for land acquisition for Component I

	Using the present project layout (PKR 2013)	Optimized budget (PKR 2013)
Compensation, Allowances and Assistance²¹		
Subcomponent 1.1 (Kaitu Weir)	66,080,771	44,836,955
Subcomponent 1.2 (structures)	51,346,310	0
Subcomponent 1.2 (other land)	563,494,473	169,611,507
Subcomponent 1.2 (powerhouses)	20,561,961	20,561,961
Subcomponent 1.3 (transmission lines)	53,587,694	29,992,242
Subcomponent 1.4 (Spaira Ragma)	5,770,118,032	976,311,800
Subcomponent 1.4 (Sheratalla)	27,417,998,630	3,639,149,000
Subtotal	33,943,187,871	4,880,463,465
Overhead Costs		
Implementation management (2014-2017)	9,000,000	9,000,000
RAP development & amendment		10,000,000
Supervision and monitoring	10,000,000	10,000,000
Capacity enhancement	20,000,000	20,000,000
Contingency (10% of compensation, etc.)	3,394,318,787	488,046,347
Total	37,376,506,658	5,417,509,812

²¹ The numbers of affected households and persons are conservative estimates based on GIS interpretation and limited surveys. These numbers as well as the size of household landholdings require ground truthing prior to finalization of the resettlement budgets.

Based on the available design, to acquire all land required for Component I of the KTDP including the Command Area through cash compensation would cost around PKR 37 Billion. Through an optimized design that a) puts in place mechanisms to avoid residential houses in road, canal, Command Area and transmission line rights of way and b) ensures that each affected household and clan member receives land for land compensation in the new Command Areas of an equal size but at least one acre and having an enhanced quality reduces the required amount for land acquisition and resettlement to PKR 5.4 Billion i.e. by 85 percent. It is therefore very much in the interest of all stakeholders that WAPDA, FATA, PEPCO and the FATA Department of Irrigation to implement the commitments made during the validation workshop and avoid structures as far as possible and ensure that all affected people receive land titles for replacement land in the new Command Areas (Spaira Ragha and Sheratalla) in a timely manner.

Annex I Validation Workshop Report (November 26, 2013)



Venue

Nazara Hall, Serena Hotel, Islamabad

Purpose

The aim was to present major findings and solicit comments and recommendations on the Environmental Assessment (EA), Environment Mitigation and Monitoring Plan (EMMP), Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF) and other supplemental reports from government and agency level stakeholders including representatives from WAPDA, FATA Secretariat, Provincial Government of Khyber Pakhtunkhwa and other consultants and participating agencies.



Participants

FATA Secretariat: 5 senior officials including departmental directors.

Government of KPK: 7 senior officials from various departments.

WAPDA: 13 senior officials from WAPDA Lahore, Peshawar and Bannu offices.

MMP: 5 members of the KPTD Project team.

ACE: 8 experts and team members.

FORT: 2 representatives.

NESPAK: 14 representatives from the KTDC Project team.

MWH: 17 staff members from the KTDC Project.

USAID: 7 representatives from the donor agency.

Event Snapshot

- The meeting was organized by MWH in Islamabad to facilitate the participation of representatives from Peshawar as well as international staff members of MWH and USAID.
- A total of 78 people participated in the discussions at the event.
- A summary of findings of the major reports compiled by MWH and its sub-contractors were presented to the participants including the EA, EMMP, RAP, RPF, Vulnerable Tribes Plan (VTP), and Cultural Heritage Preservation Plan (CHPP) amongst others.
- The participants were divided into 6 thematic groups to discuss specific topics from the reports and come up with a set of recommendations, suggestions and comments, which they presented for further discussion. The groups included (i) Seismicity and Design (ii) Hydrology and Sedimentation (iii) Irrigation and Agriculture (iv) Watershed Management (v) RAP and RPF (vi) Gender Aspects
- All participants agreed to work together and contribute towards the early commencement of the construction project of the Kurram Tangi Dam.
- The findings of the EA, EMMP, RAP and RPF reports were accepted by the participants for the most part and some valuable comments and recommendations were also presented.
- An overall positive response was seen from all participants on the reports as well as the event.

Main Outcomes

- While the findings of the MWH reports were accepted by WAPDA and other relevant agencies, there were concerns regarding the cost revisions which would have to be budgeted for in light of design review of the project.
- There were major cost concerns regarding changing the specifications of the main dam to account for upward revision in the Maximum Probable Flood estimates. Cost of the project would also have to be revised to account for design changes due to a higher seismic acceleration as suggested in the consultant's report.
- Concerns were also raised about reviewing the dam design in the light of the potentially high sediment yield.
- Recommendations were also made for planning of the command areas of the new canals simultaneously with their construction. Capacity building for the farmers on modern irrigation techniques, water use and rights and grazing rotation methods were also recommended.
- It was agreed that the alignment of canals, roads and the transmission line should be enhanced to avoid structures where feasible
- Working groups also recommended bilateral relations with Afghanistan for watershed management for the Kaitu River as well as reforestation, skills training for local communities, and additional site surveys.

Event Details

After a recitation of Holy Verses by Deputy Chief of Party, Mr. Waheed uz Zaman, the event started off with a welcome address by Mr. Imran Ahmed, Project Management Specialist of USAID, who welcomed the participants and gave an overview of the EA project. Mr. John P. Velon, MWH Vice President, also briefed the guests on the EA project and the roles played by the various sub-consultants and experts on developing the studies and reports.

The first presentation was by Dr. Gorzula, EAKTDC Project Chief of Party, who after outlining the objects of the workshop talked about the Environmental Assessment Report. He informed the participants of the issues and constraints which hindered the development of the studies and appreciated the input of the MWH's sub-consultants.

Presenting the major findings of the EA study, Dr. Gorzula said the major issues seen in Component I of the Kurram Tangi Project include geotechnical aspects, seismicity analysis, increased sediment loads in the Kaitu River, road development and alignments, construction related emissions and waste management, change in river morphology, development of command areas and RAP related issues.

Kurram Tangi Dam Project Resettlement Action Plan Component I



The issues identified in Component 2 include hydrology impacts, increased Probable Maximum Flood (PMF) figures along with the issues identified for Component 1. Similar issues were also part of the study conducted in Component 3 of the KTDC Project along with issues of irrigation management and changes in water quality during construction.

The Senior EA Advisor to MWH, Ms. Charlotte Bingham, presented the findings and major issues highlighted in the EMMP. The principle recommendations of the Component 1 included additional geotechnical investigations and related design revisions, development of command areas, the need for waste management, the need for dredging sediments, and fish surveys.



Recommendations for Component 2 include additional geotechnical and seismic studies, new criteria for major structures, new hydrological criteria for spillway and water management. Issues for Component 3 include additional geotechnical studies, coordination of irrigation infrastructure with command area development, and downstream water management.



Kurram Tangi Dam Project Resettlement Action Plan Component I

This was followed by a tea break after which the participants returned to the hall to hear Mr. Abdul Khaliq Khan and Dr. Izhar ul Haq of WAPDA who gave thoughtful and professional responses to findings of the MWH EA and EMMP efforts. They commented specifically that the seismic and hydrology reports were very professionally done and drew attention to some serious issues especially for the Main Dam in Component 2. WAPDA asserted that it would take these suggestions into consideration. WAPDA also asserted their agreement with the concept of concurrently developing the command areas under the FATA Irrigation Department so that the benefit streams of irrigation could start flowing as soon as possible. Finally, WAPDA acknowledged the unique socio-political situation in the project area and that project implementation should be sensitive to such concerns. John Velon of MWH then thanked the WAPDA representatives for their thoughtful and professionally astute remarks.

MWH Consultant Dr. Kai Schmidt-Soltau then presented the RAP, RPF, VTP, Gender Plan and CHPP. He discussed the permanent and temporary land acquisition for the project, which will result in physical and economic displacement of PAPs in all three Components. He stressed the need to address all social and economic issues as to ignore any aspect may result in resistance against the project from local communities and operational risks. He stressed the need for meaningful consultation with local communities and verified compensation to all involuntarily displaced persons prior to construction.

The major points of the study including compensation entitlements, numbers of physically and economically affected people and households, and an optimized budget for land acquisition and compensation were also highlighted. The number of displaced persons and the compensation budgets were surprising to the participants as they were higher than originally anticipated by the project planners.

Regarding RAP for Component I, he said that the study calls for equitable payment of compensation, detailed design plans, land acquisition strategies, and resolution of existing tribal land disputes. He highlighted that construction of the Kaitu Weir can commence as soon as cash compensation is disbursed and agreements are signed by WAPDA and the FATA Department of Irrigation that those who lose agricultural land receive replacement land as soon as the Spaira Ragha Command Areas are established. In turn, he stressed that other Subcomponents could benefit from a detailed design of linear infrastructure that avoids impacts on houses in order to reduce impacts and associated costs.



For Components 1, 2 and 3, a RPF has been developed, which guides the elaboration of component specific RAPs as soon as the detailed design is available and which in Component 2 will need to focus on the identification of appropriate and acceptable resettlement sites for the physically displaced, and the relocation of the Shrine of Fakir of Shewa. Issues of Component 3 include canal alignments and Command Area Planning to avoid impacts on structures, and that a RAP should be made in the future after financing for the project has been secured and designs finalized.

Kurram Tangi Dam Project Resettlement Action Plan Component I

As far as the VTP is concerned, Dr. Schmidt-Soltau said that participation of local tribes in the decision making process needs to be assured, land disputes resolved amicably, and benefits be provided to local people through rural electrification and local content development and potentially production based benefit schemes. It will also be important to ensure equitable water distribution between the Command Areas, hydropower generation and downstream water needs, as well as within the individual Command Areas to assure the ongoing support from the local Wazir tribes.

Recommendation of the Gender Plan include awareness raising, promoting Islamic laws of female land ownership, strengthening of female education and health infrastructure, psychosocial support for women and livelihoods training and opportunities.



Dr. Schmidt-Soltau also presented an outline of the Cultural Heritage Preservation Plan its recommendations for surveys and studies, moving of artefacts found during construction, realignment of canals to avoid unmovable archaeological finds, monitoring and evaluation of heritage preservation and involvement of the department of archaeology and museums. The need for capacity building and the hiring of qualified staff to assure compliance with national and international standards was stressed.

Following these presentations, the participants were divided into 6 thematic groups to discuss (i) Hydrology and Sedimentation, (ii) Irrigation and Agriculture, (iii) RAP and RPF, (iv) Gender Aspects, (v) Seismicity and Design, and (vi) Watershed Management respectively. Each group included a Group Leader and a Sector Specialist besides other participants. After 2 hours of discussions, each group presented their recommendations for review by the audience.

Seismicity and Design Group - Main points highlighted by the Seismicity and Design Group included recommended increase in seismic acceleration from 0.2g to 0.8g as the basis for design and the need for further studies to verify workability of the Probabilistic Seismic Hazard Analysis equations. The group asked for verification of studies for optimization and stated that the project costs would increase substantially.



Watershed Management - The Watershed Management Group recommended bilateral relations between Pakistan and Afghanistan for watershed management of the Kaitu River, reforestation and capacity building of the local communities in environment preservation, flushing mechanisms for the Kaitu Weir, archaeological surveys, site studies, and studies in erosion.

Hydrology and Sedimentation - The Hydrology and Sedimentation Group talked of design revisions due to increased PMF estimates in view of updated figures for Probable Maximum Precipitation, potentially higher sediment yield, sediment sampling programs, and small dams along the Thal Canal alignment and review of the associated command area.

RAP and RPF - The RAP and RPF Group discussed the findings from the series of consultations with local communities in all three Components and recommendations on demands made by PAPs on local employment in the project construction, provision of free electricity, modes of compensation, and various other mitigation measures.



Irrigation and Agriculture - The Irrigation and Agriculture Group recommended planning of command areas, equitable water distribution, water rights for downstream users, supply based irrigation rather than demand based, a drainage component along with command area development, upgrading of existing canals infrastructure, cropping patterns to match water supply, a switch to modern irrigation techniques, monitoring of water tables for waterlogging management, development of tube wells, concrete lining of irrigation channels, capacity building for local farmers and introduction of grazing rotation methods.



Gender Aspects - The Gender Aspects Group recommended upgrading of female related procedures, and development of an organogram and specific TORs for the Gender Aspects implementation team.

While some issues were raised by participants in the course of discussions following these presentations, no major dissent was seen and majority of the participants agreed to the summaries of the reports and group recommendations.



Participants were given certificates and souvenirs to acknowledge their participation in the consultation and disclosure workshop.