

Resettlement Planning Document

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STAR HYDROPOWER LIMITED

RESETTLEMENT PLAN

PATRIND HYDROPOWER PROJECT



March 2011



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ACRONYMS

ADB	:	Asian Development Bank
AJK	:	Azad Jammu and Kashmir
Amsl	:	above mean sea level
AP's	:	Affected Persons
CDM	:	Clean Development Mechanism
CEO	:	Chief Executive Officer
CERs	:	Carbon Emissions Reduction
D/S	:	Downstream
DCO	:	District Coordination Officer
DRO	:	District Revenue Officer
DPs	:	Displaced Persons
EIA	:	Environmental Impact Assessment
EMU	:	Environmental Management Unit
EPA	:	Environmental Protection Agency
EPC	:	Engineering, Procurement, Construction (Contractor)
GRC	:	Grievance Redress Committee
IFC	:	International Finance Corporation
KP	:	Khyber Pakhtunkhwa
LAA	:	Land Acquisition Act (1894)
LAC	:	Land Acquisition Collector
LVC	:	Land Evaluation Committee
MIS	:	Management Information System
NEQS	:	National Environmental Quality Standard
NGOs	:	Non Government Officials
NTDC	:	National Transmission and Dispatch Company
NWFP	:	North Western Frontier Province
O & M	:	Operation and Maintenance
P&D	:	Planning & Development
PES	:	Pakistan Engineering Services (Private Limited Lahore)
RP	:	Resettlement Plan

SC	:	Supervisory Consultants
SHPL	:	Star Hydropower Limited
SR	:	Safeguard Requirements
U/S	:	Upstream
UC	:	Union Council
UNFCCC	:	United Nations Framework Convention on Climate Change
WAPDA	:	Water & Power Development Authority
WB	:	World Bank

EXECUTIVE SUMMARY

1. BACKGROUND

Patrind Hydropower Project (the Project) is sponsored by STAR Hydropower Limited (the Company). The Resettlement Plan has been prepared on behalf of the Sponsor by Pakistan Engineering Services (Pvt.) Lahore. The Project consists of a weir on Kunhar river, located on the boundary of District Abbottabad of Khyber Pakhtunkhwa and District Muzaffarabad of Azad Jammu and Kashmir (AJK). The powerhouse is located on right bank of Jhelum river in lower Chatter area of District Muzaffarabad, (AJK).

Study for Resettlement Plan was conducted by a multidisciplinary team initially during the period between June–September 2006 as the part of feasibility study. The EPC Contractor has slightly modified design which includes relocation of weir and powerhouse from the proposed sites in the feasibility study. As a result of this change additional environmental surveys were conducted in March 2010 and the Resettlement Plan has been updated accordingly.

2. THE PROJECT

Patrind is a small village on the left bank of Kunhar river, 12 ½ km downstream from Garhi Habibullah bridge. The project components will consist of a weir near Patrind village, a head pond behind the weir at conservation level of 765 m above mean sea level, Intake Structure followed by sand trap, headrace tunnel, pressure shaft, surge chamber, penstocks, powerhouse, and tailrace. Two coffer dams for the diversion tunnel will be built to keep the Kunhar river bed in dry condition during construction of the weir. A new bridge will be constructed on Jhelum river for accessibility to powerhouse site.

3. PROJECT LAYOUT ALTERNATIVES

During feasibility study four alternatives for the project layout were identified and assessed. Each of the alternatives is the result of varying the location of the powerhouse keeping the location of the weir and headrace tunnel the same. The EPC Contractor while keeping the main concept of the feasibility study intact proposed a slight design modification by relocating the Weir and Powerhouse from technical and resettlement perspectives.

4. LEGAL FRAMEWORK

The Report on Resettlement Plan has been prepared in accordance with the national and international requirements for resettlement. The provisions laid down in Pakistan Environmental Protection Act 1997, AJK Environmental Protection Act 2000, Land Acquisition Act 1894, Draft National Resettlement Policy 2002, NWFP Forest Ordinance 2002 and Sarhad National Conservation Strategy 1992 have been followed. Similarly requirements laid down by the International Finance Corporation and Asian Development Bank have been followed. In particular provisions of ADB *Safeguard Policy Statement* 2009 on resettlement and ADB Operational Manual F1 2010 have been consulted.

5. SOCIO - ECONOMIC PROFILE

The 8 villages in the vicinity of the weir site and 5 villages around powerhouse site have a population of 7,397 according to 1998 census report. The household size ranges from 5 to 9 persons per household. There is a Panchayat/ Jirga system (informal village council) for conflict resolution mechanism at village level. The members of the Panchayat include Nazim of the Union Council, Numbardar (Revenue Collector) and representatives of the village households.

According to field surveys the per capita income of 32% of the affectees in the project area is below the threshold poverty line. Business, farming and services are the major occupations of the local population followed by construction labour. Some people own shops located around villages while others work in transport business. Socio-economic indicators point to poor standard of living, poor health, and inadequate status of community water supply, sanitation and education. Women face problems due to restricted mobility, lack of decision making, limited productive employment opportunities and lack of awareness about health and hygiene.

6. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

Land Acquisition

Permanent Land Acquisition	744.25 Kanal
Temporary Land Acquisition	158.20 Kanal
Total	902.45 Kanal (45.646 Ha)

The names/ addresses of owners numbering 304 whose land is to be acquired have been identified and listed in the main text of the report which also shows land classification into farm land, waste land and river bed. The compensation

for privately owned land will be based on replacement value in the same area and cost principle as provided for in the Entitlement Matrix. On temporary land acquisition, for privately-owned land, which may be temporarily acquired, compensation will be equal to the average market value of of each lost harvest for the duration of the loss, and will be covered by a lease agreement. The government land that will be temporarily acquired will be covered by a lease agreement. All lands under temporary acquisition will be leased for five (5) year, after which the land will revert back to its original owners and restored to pre-construction condition or as may be specified under the relevant lease agreement.

Value of Land

The estimates of value of land are based on recent market transaction, consultation with affected persons and views of the revenue department officials.

Value of Houses/Crops/Trees

Assets like built-up property are valued at full replacement cost i.e. the amount sufficient to replace lost asset plus transition cost. In applying replacement cost method, depreciation of structures/ asset would not be taken into account.

In case farmers are not permitted to harvest crops on land already acquired, due to exigency of construction schedule, cash compensation based on market value of crop will be made.

Affected Houses

A total of 28 houses will be affected by the project implementation, 19 on the AJK side and 8 on the KP side, displacing a total of 242 persons. The house owners have been identified.

Commercial Assets

No commercial assets are affected by project implementation except one small water mill which will be subject to submergence by the head pond. The small water mill belongs to Mr. Muhammad Hussain of village Schian of Muzaffarabad District.

Affected Trees

A total of 624 trees will be affected by project implementation. These consist of

126 mixed fruit, 31 timber and 498 fuel wood trees.

7. INSTITUTIONAL ARRANGEMENTS

Star Hydropower Pvt. Ltd. (the company/the sponsor) will play a key role in implementing the resettlement components of the project. For the efficient implementation and management of resettlement activities, an Environmental Management and Monitoring Unit (EMU), headed by an environmental and social expert assisted by two ESI inspectors of the Company will be created. The EMU will be responsible for implementing resettlement activities.

The Company will develop Management Information System (MIS) to be used to maintain a computerised data involving information related to the resettlement activities.

Organizational Setup

To initiate and proceed with land acquisition, District Revenue Officer (DRO) of each district will be designated as Land Acquisition Collector (LAC). In the capacity of LAC, the DRO will depute adequate number of revenue officials to work with EMU staff for performance of their functions in acquisition of land/assets required for Project implementation.

Compensation Payment Procedure

The organizational setup as explained above will be followed as the basis of procedure for payment of compensation for acquisition of land and other assets. The compensation payment procedure will therefore consist of the following steps.

- The staff of SHPL and that of DRO will conduct field surveys to physically identify the land/ other assets to be acquired for project implementation.
- Ownership of land/ assets will be confirmed with reference to District Revenue Department records as well as by using all other available means.
- After valuation of land and other assets has been completed by Land Valuation Committee (LVC), payment of compensation will be made to the Affected Persons out of the Compensation Fund.

Transparency of Compensation Process

Following measures will be adopted to ensure transparency of the compensation process.

- Representation of affectees on Land Valuation Committee.
- Issuance of Certificates of Compensation to each affectee and public availability of these Certificates.
- Payment of compensation directly into bank accounts of the affectees.

These measures will greatly help in minimising the possibility of affectees not receiving full compensation.

8. GRIEVANCE REDRESS

Grievances are best redressed through project management, local civil administration, or other channels of mediation acceptable to all parties. The project management should make every effort to resolve grievances at the community level.

Grievance Redress Committee (GRC)

In the case of Patrind Hydropower Project, major grievances that might require mitigation may include the following:

- AP's not enlisted
- Compensation inadequate
- Dispute about ownership
- Delay in disbursement of compensation

The GRC would be comprised of the following members.

- District Revenue Officer, as the Chairman:
- SHPL Representative
- Union Council Nazim, as Principal Member
- Three Affected Community Representatives, as Members

The GRC will meet at least once a month and discuss the existing problems. It shall deliver its decision within two to four weeks of registration of the case. The decision of GRC would be final.

9. RESETTLEMENT BUDGET AND FINANCING

The resettlement and environmental cost of Patrind Hydropower Project is estimated as Rs. 174.8 million (US\$ 2.08 million). A 10% contingency amount will be earmarked. The cost of permanent land acquisition is the largest component at 64 % of the total environmental cost.

10. IMPLEMENTATION SCHEDULE

Within the project cycle, the implementation schedule provides the time frame

for commencement and completion of the resettlement activities which consist of community consultation, resettlement plan disclosure, inventory taking of lands/assets, payment of compensation including grievance redress, possession of land and assets for project implementation.

CHAPTER – 1

PROJECT DESCRIPTION

1.1 BACKGROUND

In Pakistan the increasing demand for electric power is now outstripping the supply. The widening gap between supply and demand has resulted in load shedding causing serious setback to national economy particularly the industrial sector. To close this gap, different possibilities for electrical power generation are under investigation and many projects have been identified including a series of hydropower projects.

The fall in elevation from weir site at village Patrind to powerhouse site in Lower Chattar AJK offers potential for hydropower generation by means of a headrace tunnel diverting River Kunhar at flow of 153 cumecs. Based on this concept, a Feasibility Study on Patrind Hydropower Project has been completed by Pakistan Engineering Services (Pvt.) Ltd. on behalf of Star Hydropower in 2007. Star Hydropower Limited is owned by three Companies K-Water, Daewoo E&C and SAMBU Constructions of Republic of Korea.

1.2 PATRIND HYDROPOWER PROJECT

The proposed weir site is accessed by Boi Road on right side of Kunhar river. It is at a distance of 12.3 km from Garhi Habibullah bridge. The centre line of Kunhar river at the project site marks the boundary between Pakistan and Azad Jammu & Kashmir. The left bank of Kunhar river thus lies in AJK which can be accessed by a 3.1 km track leaving main road between Muzaffarabad and Garhi Habibullah (Hazara Trunk Road).

The proposed powerhouse site is located on the right bank and downstream limb of Jhelum river at Lower Chattar District Muzaffarabad in AJK. The left bank of Jhelum river at the proposed site of powerhouse is accessible from Lower Chattar in Muzaffarabad district. Locations of weir and powerhouse sites are shown in Figure 1.1 and 1.2.

The construction of weir will result in a head pond. River Kunhar water will get diverted into a headrace tunnel discharging into penstocks of the powerhouse located in Lower Chattar, District Muzaffarabad AJK. After the power generation the water will be led into river Jhelum by means of a tailrace which is 75 m long open channel. A new bridge needs to be constructed to access the right bank

for transportation of labour and equipment to the construction area of the powerhouse. The layout of the project is shown in Figure 1.3.

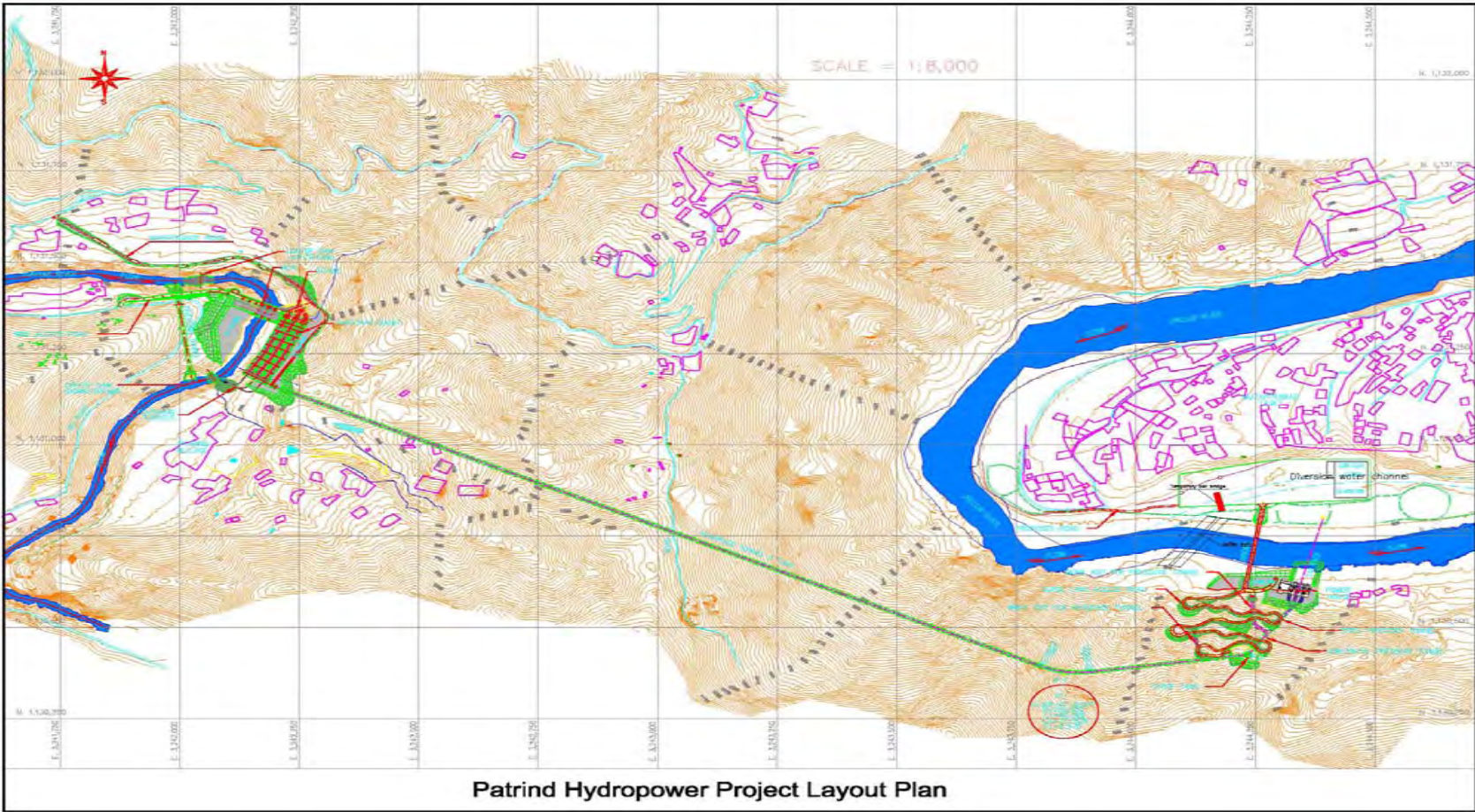
Figure1.1: Location of Weir on Kunhar River near Patrind Village



Figure1.2: Location of Powerhouse on Left Bank of Jhelum River in Lower Chattar



Figure 1.3: Patrind Hydropower Project Layout Plan



CHAPTER 2

LAND ACQUISITION AND RESETTLEMENT (LAR) IMPACT ANALYSIS

2.1 General

The analysis presented in this chapter deals with the impact of land acquisition and resettlement necessitated by the Project.

The primary social parameters gathered from the cadastral survey and individual households/land owners' interview are: (i) name of household head, number of house occupants (disaggregated into male and female), and number household members having long term and short term employment and (ii) name of land owners (as listed in the official revenue records), number of beneficial owners of land (disaggregated into male and female), and number household members having long term and short term employment. These social parameters are considered preliminary and are subject to further updates on availability of additional official records from other official registers that hold information in a much greater detail.

The Resettlement Plan is based on EPC basic design. Prior to actual physical and economic displacement and actual taking over of the assets, a full census of AP/DP and 100% inventory of affected assets, a socioeconomic survey of a representative sample of 15 percent of all AP/DP with in-depth data serving as baseline for monitoring and evaluation, a detailed measurement survey of the lost assets and a valuation of the lost assets based on principle of replacement value and cost in the same area, will be undertaken. The RP will be updated based on the findings of the census, asset inventory and socioeconomic survey. Key elements of the updated RP will be disclosed to AP/DP in local language. The updated RP will be submitted to ADB for review prior to financial closure. Efforts have been made to minimize the number of displaced persons and property as much as possible. The initial information gathered from the cadastral survey to date is summarized in tabular form and attached as Annex-6 of this RP. A comprehensive description on land acquisition and resettlement is given in Chapter 6.

2.2 Detail of land acquisition

2.2.1 Aggregate detail

Land acquisition process deals with the acquisition of the land for permanent and temporary purposes. The permanent land shall become the property of the Project for the whole concession period. The temporary land is required only for the construction period and shall be returned to the owners once the project goes in to the operation phase. The project design also requires acquisition of certain number of houses for permanent purposes.

The aggregated detail of the houses and land required for permanent and temporary purposes, the inhabitants (owners and their family members) associated with such land and their income status is shown in table 2.1 below, while the analysis follows in the subsequent paragraphs.

Table.2.1 Type of the land to be acquired and the income status of the occupants

Sr. #	Item	Unit	Area	Type of Land				No. Of Occupants		Income Status	
				Farm Land	Waste Land	River Bed	House Land	Male	Female	Long Term	Short Term
1	Permanent Land Acquisition	Kanal	744.3	128.3	317.8	297.4	1.2	468	481	39	252
2	Temporary Land Acquisition	Kanal	158.2	28.8	58.4	70.8	0.05	211	219	5	135
3	Affected Houses	Nos.	28	-	-	-	-	119	123	23	45

The permanent land required for the project constitutes those areas where major structures of the project are to be constructed. The estimated area of the permanent land to be acquired is around 745 Kanal. Only 128 Kanal of the farm land shall be acquired on permanent basis while the major permanent acquisition of land is contributed through wasteland and river bed area. The data collected from the revenue department showing the details of the land owners, size of the land holding and type of the land is given in Annex 10.

The number of inhabitants (the owners and their family members) linked to the land required for permanent purposes are around 950. Most of these inhabitants are employed on short term basis. The land to be acquired for various structures

and its type is aggregated in the table below.

The project would also need to acquire almost 158 Kanal of the land temporarily for the use of access roads, construction camps and storage area for the period of about 5 years. The significant portion of the temporary land consists of river bed and wasteland. Approximately 29 Kanal of farm land would be required for the time of construction.

Due to the change in the powerhouse location about 13 houses will be acquired for the construction of powerhouse in Alda village and 6 houses will be submerged due to the creation of head pond on the AJK side. On KP side in the head pond area 8 houses plus 1 at the diversion tunnel will be acquired. That means total 28 houses will be acquired for the project development displacing around 242 persons.

2.2.2 Land required for project structures and facilities

Table 2.2 presents the detail of the land required for the major structures of the Project including the temporary facilities, while the analysis thereon follows in subsequent paragraphs.

Table.2.2 Structure wise land requirement and its type

Structure	No. of Occupants	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
Powerhouse	196	30	16	13	17	42	11	2	18	90	2
Surge Tank	0	75	0	0	0	0	0	0	0	75	0
Construction camps Powerhouse	0	0	0	46	7	39	7	0	0	85	14
Weir, Sand trap	20	0	0	7	19	56	7	0	0	64	6
Patrind Construction camp	165	13	16	4	18	18	11.5	0	1	37	6.6
Access Road	265	15	1	7	4	12	19	0	0	35	4
Head pond AJK	636	236	3	28	11	109	14	0	14	375	3
Head pond KPK	78	48	0	2	19	88	16	0	0	139	15
Total	1360	418	16	111	15	368	5.5	3	13	902	10.5

Power House

The land required for the Powerhouse is about 90.1 Kanal, which includes 30.8 Kanal of farm land, 13.85 Kanal of the river bed, 42.55 Kanal of wasteland and about 2.9 Kanal of the house land. The detail of the owners of the land is given in Annex 10. The number of occupants given in the table above includes the owners of the land as well as their family members who otherwise are not the direct owners but are living with the owners. The total land owners in this category are 55 with an average of land holding below 1 Kanal.

Surge Tank

The land required for the surge tank is about 75 Kanal which is the property of the forest department. There are no inhabitants on this land.

Construction camp for the local and expatriate staff on powerhouse side

The land required for the camps is about 85.57 Kanal out of which 46.4 Kanal is river bed and 39.4 Kanal is the wasteland. About 23 Kanal of the land belongs to the locals while the remaining land is the property of the government. The detail of the land and its type is given in Annex-10. The land will be acquired on temporary basis. Even the private land in the area is not being utilized by the locals because of the fact that the land is adjacent to the river bed and due to the uncertainty of the flow of the river that land cannot be used for agricultural or for any other purposes.

Weir site Construction area and Sandtrap

Weir and the sand trap are the permanent structures and the land to be acquired will also be on the permanent basis. Almost all the area falls in river bed and wasteland so no utilization is there by the locals. The land required is about 64.3 Kanal of which 7.9 Kanal is the river bed and 56.4 Kanal is the wasteland. The ownership detail is given in Annex-10.

Access road to weir Patrind Tarcheela

The existing katcha (unpaved) road leading from the Garhi Habibullah-Muzaffarabad road toward the Tarcheela village will be paved during the construction for the vehicular access which will also be utilized by the local residents. The land required for the access road on the weir side for temporary purposes is about 37.3 Kanal out of which about 13.7 Kanal is farm land, 4.9

Kanal is river bed and 18.55 Kanal is the wasteland. Almost 65% of the land required for the camp falls in the river bed and the wasteland category hence there is no dependency on the land by the locals.

Construction camp on weir side

The land required for the camp on the weir side is about 35.2 Kanal out of which about 13.7 Kanal is farm land, 4.9 Kanal river bed and 18.55 Kanal wasteland which will be acquired temporarily for the period of 5 years.

Head pond AJK Side

Since the submergence will be a permanent feature of the project, the land under impoundment will be acquired permanently. The length of the head pond is about 7 Km from the weir site. Total land required is 375 Kanal falling in Tarcheela, Bella and Shoran village affecting about 130 land owners. 236 Kanal of the farm land, 110 Kanal of the wasteland followed by 28 Kanal of the river bed and half a Kanal of the house land will be acquired. The detail of the land owners and their land holding is given in Annex-10.

Head pond KP Side

On the KP side the total land to be submerged will be about 140 Kanal, out of which 48 Kanal is Farm Land, 3 Kanal river bed and 88 Kanal is the wasteland. The detail of the land owners and their land holding is given in Annex-10.

2.3 Economic implications on owners by land acquisition

The total number of the affectees and displaced due to the house acquisition for the construction of powerhouse and submergence on AJK and KP side are estimated to be 242.

The land owners affected by the land acquisition stand around 300. However if we include the family members of such land owners, the affected number goes up to 1360.

Table 2.3 provides the details of the number of affected people and their income status.

Table.2.3 Number of Affected/Displaced Persons segregated gender wise and status of income

Affected House Structures	AP/DP			Number of Employed		% Employed
	Male	Female	Total	Long Term	Short Term	
Power House AJK	80	78	158	15	30	
Head pond at Weir Site AJK	17	10	27	2	7	
Head pond at Weir Site KPK	14	16	40	4	5	
Diversion Tunnel at Weir Site	8	9	17	2	3	
Subtotal	119	113	242	23	45	30
Affected Land						
Power House & Access Road (ALDA Village) AJK	99	97	196	14	40	
Colony of Expatriate construction staff, Switchyard, labour camp, access road, bridge, batching plant	0	0	0	0	0	
Weir Site Construction Area & Sandtrap AJK	11	9	20	0	9	
Access Road (Patrind/Tarcheela) AJK	84	81	165	3	66	
Construction Camp (Patrind/Tarcheela) AJK	127	138	265	2	69	
Reservoir Impounding (AJK)	318	337	636	13	192	
Reservoir Impounding (Deedal) KP	40	38	78	12	11	
Subtotal	679	700	1360	44	387	31
TOTAL	798	813	1602	67	432	

Because of the heredity laws in Pakistan and AJK the land is divided amongst all heirs, leading to progressive small size of land holding unless an owner adds any land to his name through purchases. In the affected area of the Project with the exception of two individuals having 13 kanal of the land all other land holders have very small size of land to their names. Considering the rain-fed nature of the agriculture in the area – meaning low yield - and the small size, the farm land is also not the primary means of sustenance for the affected families. Consequently the local people depend on the other source of income for their livelihood such as business, jobs, services etc. Annex-6 of this RP represents the

census and the status of the income of the land owners which clearly indicates that almost all the land owners have other source of income either short term or long term.

As evident from the table 30% of the Affected People /Displaced People (s) are employed having long term and short term employment. This 30% should not be seen as 70% unemployment as the employment figure has been derived from the total number of affected population including women, who generally do not work in employment, and the children. None of the affected person is significantly affected economically from the loss of land.

2.4 Project Overall Positive Impacts

Apart from generation of 147MW of electricity the project has following socio-economic impacts on the local level.

- Employment opportunities which will help mitigate local opposition if may develop
- the project will also stimulate local economy
- the project will reduce population emigration and help find work for local unskilled workers
- Local market will be benefited due to increase in demand of consumer goods
- Increased income in the project area will encourage the formation and growth of local businesses resulting in new indirect employment opportunities.

CHAPTER – 3

LEGAL FRAMEWORK AND ENTITLEMENT

3.1 The Constitution of Pakistan

3.1.1 Protection of Property Rights

Article 23 of the constitution of Pakistan establishes the right of every citizen to acquire, hold and dispose his/her property in any part of Pakistan. Article 24 of the constitution of Pakistan relating to the Protection of Property Rights is most important, and has direct relevance to the project Affected people. Its first two clauses are;

- i. No person shall be compulsorily deprived of his property save in accordance with law.
- ii. No property shall be compulsorily acquired or taken possession of save for a public purpose, and save by the authority of law which provides for compensation therefore and either fixes the amount of compensation or specifies the principles on and the manner in which compensation is to be determined and given.

These clauses forms the basis of the law formulated under the constitution for acquisition of property for public purposes. In AJ&K property rights are also protected under Section 4(4) of the AJ&K Interim Constitution Act of 1974, whereby property cannot be compulsorily acquired except for a public purpose and by an authority of law that provides compensation thereof.

3.2 Land Acquisition Laws

Land acquisition and compensation/resettlement of affected population is governed under Land Acquisition Act 1894.

3.3 LAND ACQUISITION ACT (LAA) 1894

The Land Acquisition Act 1894 is a “law for the acquisition of land needed for public purposes and for companies and for determining the amount of compensation to be paid on account of such acquisition”. The raison de etre of this piece of legislation is, therefore, two-fold: firstly to fulfil the needs of government and companies for land required by them for their projects, and

secondly, to determine and pay compensation to those private persons or bodies whose land is so acquired. The exercise of the power of acquisition has been limited to public purposes. The principles laid down for the determination of compensation, as clarified by judicial pronouncements made from time to time, reflect the anxiety of the law-giver to compensate those who have been deprived of property, adequately. However, its provisions do not fully take into account the changed social, cultural, economic, political and environmental situation in Pakistan. It has been established through experience with various projects over the years that mere payment of cash compensation under the LAA is not enough to restore livelihood and affected social environment. LAA basically governs the acquisition of private properties for public purposes for development projects in Pakistan. It comprises 55 Sections pertaining to: area notifications and surveys; acquisition; compensation and apportionment of awards; dispute resolution; penalties; and exemptions, but neither this nor any other law of the land, covers resettlement and rehabilitation of persons in the manner as a mandatory process according to current perceptions and requirements of the international financing agencies.

Salient Features of the Land Acquisition Act (LAA) 1894 and its Successive Amendments

Key Sections Salient Features of the LAA (1894)

Section 4. Publication of preliminary notification and power for conducting survey.

Section 6. The Government makes a more formal declaration of intent to acquire land.

Section 7. The Land Commissioner shall direct the Land Acquisition Collector (LAC) to take order the acquisition of the land.

Section 8. The LAC has then to direct the land to be marked out, measured and planned.

Section 9. The LAC gives notice to all APs that the Govt. intends to take possession of the land and if they have any claims for compensation that should to be made to him at an appointed time.

Section 10. Delegates power to the LAC to record statements of APs in the land or any part thereof as co-proprietor, sub-proprietor, mortgagee, and tenant or otherwise.

Section 11. Enables the Collector to make enquiry into measurements, value and claim and issue the final "award". Included is the land's marked area and valuation of compensation.

Section 16. When the LAC has made an award under Section 11, he will then

take possession and the land shall thereupon vest absolutely in the Government, free from all encumbrances.

Section 18. In case of dissatisfaction with the award APs may request the LAC to refer the case onward to the court for decision. This does not affect the taking possession of the land.

Section 23. The award of compensation for the owners for acquired land is determined at its market value plus 15% in view of compulsory nature of the acquisition for public purposes.

Section 28. Relates with determining compensation values and interest premium for land acquisition

Section 31. Provides that the LAC can, instead of awarding cash compensation in respect of any land, make any arrangement with a person having an interest in such land, including the grant of other lands in exchange.

3.4 Application of Land Acquisition Act to the Project

The project is being developed under power policy 2002 of Government of Pakistan and is also adopted by Government of Azad Jammu & Kashmir.

AJK Council has issued Letter of Support (LOS) to the project which makes the project for the public purposes, wherein all necessary support has to be provided.

In the case of IR the company is committed to commence all the civil works only after implementation of the RP (full payment of compensation, completion of relocation measures, if any, and livelihood measures in place) which then needs to be reflected in the implementation schedule.

The company will only commence the work when the land holders will allow to. That means that the process of land acquisition will be based on the proper negotiations and proper compensations.

3.5 LEGAL FRAMEWORK FOR RESETTLEMENT

3.5.1 Legislation on Land Ownership and Records

With regard to land ownership, LAA does not entirely depend upon written records of land. This implies that records, if existing, would be a statement on possession. However, most of the occupants, who claim to be the owner, do not have any written tenancy agreement. For such cases confirmation on land possession at the court level is accepted. This is common practice in AJK and KP and also accepted by the local administration, in particular, the Revenue Department and the Patwaris. They have revenue records about the ownership, including use of the particular land by a tenant and the household structure plot-

wise. This practice is also endorsed by the Draft Resettlement Policy of Pakistan

3.5.2 Legislation on Public Notification Regarding Cut-off-Date

LAA requires a public notification of the 'Cut-off-Date', once the need for land acquisition of a project has been established. Besides restricting any further development on the notified land, it authorises the government functionaries to:

- i. Enter upon and survey including taking levels of the land affected for inspection of cadastral objects and their measurement.
- ii. Dig or bore into the subsoil for assessing the soil quality.
- iii. Set out boundaries of the land proposed to be acquired.
- iv. Mark levels, boundaries and lines by placing marks and cutting trenches.
- v. Cut down crop, fence or jungle, under the conditions that a proper survey cannot be performed or completed.

LAA also requires informing the household head about the intention to survey the land and residential properties 'giving such occupier at least seven days notice in writing Under the Draft Project Implementation and Resettlement Ordinance 2001, the Director General Projects is duty-bound to issue and specify the cut-off date for alienation of property in the project area.

3.5.3 Legislation about Land Acquisition Procedure in the Field

LAA prescribes the legal conditions of land inventory procedure under Section 8. Although LAA does not make mention of a particular person or a governmental body to carry out the measurement of the land, in this particular case the required Cadastral Survey is being conducted by revenue department in collaboration with SHPL.

Since field measurement of the boundaries and sizes of plots and houses and other structures is important for both parties i.e. Revenue Authorities and the owner or tenant. So the information will be collected from owners by the revenue department officials in association with SHPL.

For identification of land property entitlement of the persons, mostly heads of the families, the related cadastral elements will be investigated in the field and verified by the revenue department and SHPL. This survey also enabled determining size, quality and ownership of the land units. However, where the land has never been used for dwelling or cultivation, the compensation criterion to be applied would be as explained under Section 6 of LAA.

3.5.4 Legislation on Grievance Redress

Grievance redress is prescribed both in LAA (1894) and the draft Resettlement Ordinance (2002). Accordingly, affected persons not satisfied with any aspect of the resettlement procedure including entitlement to compensation, compensation of land, compensation of houses and land acquisition etc. will have the right to file a petition against the sponsor SHPL in the higher courts. For all grievance redress, a Grievance Redress Committee (GRC) has been established for the project. If an affected person is not satisfied with the decision of GRC, he will have the right to approach the concerned Court of Law (per Section 18 of LAA). A detail description on Grievance Redress is given in Chapter 8.

3.6 EXTERNAL SUPPORT AGENCIES

3.6.1 Asian Development Bank (ADB)

ADB has adopted a set of specific safeguard requirements that borrowers/clients are required to meet in addressing environmental and social impacts and risks. The Resettlement Plan prepared for the project will comply with ADB SPS and in particular, with the Safeguard Requirement 2 on Involuntary Resettlement.

3.6.2 International Finance Corporation (IFC)

The IFC is considering an investment consisting of a senior loan to Star Hydro. Since the project requires land acquisition, Performance Standard 5 on Land Acquisition and Involuntary Resettlement was triggered and this RP is prepared to comply with the requirements. IFC's Environmental and Social Review Summary is available at <http://www.ifc.org/ifcext/spiwebsite1.nsf/0/35BE7F4D0DF827FF8525781600566E6E>

3.7 Comparison of Land Acquisition Act 1894 AND ADB Safeguard Policy Statement 2009

ADB SPS requires compensation of APs irrespective of their legal titles as well as providing special assistance to vulnerable people. On the other hand, basic approach according to the local laws is to compensate the project affected peoples (APs) according to legal provisions and entitlements only. Further, ADB's policies take resettlement operations as a development program and emphasise on the livelihood restoration and sustainability of APs. Against this, the local laws aim to restore the livelihood of APs at least to the level before the project intervention.

Land Acquisition Act 1894	ADB Safeguard Policy Statement 2009 (IR)
Land compensation only for titled landowners or holders of customary rights.	Lack of title should not be a bar to compensation and/or rehabilitation. Non-title-holders are to be rehabilitated.
Crop losses compensation provided only to registered landowners and lease/sharecrop tenants (Non-registered are often deprived).	Crop compensation are provided to landowners and sharecrop/lease tenants according to their shares whether they are registered or not
Tree losses are compensated on the basis of officially fixed rates by the Forest and Horticulture departments	Tree losses are compensated according to actual worth of Affected trees based on market rates.
Land valuation based on the median registered land transfer rate over the previous 3 years.	Land valuation is to be based on current replacement value.
Structures valuation based on official rates, with depreciation deducted from the structure gross value.	Valuation of built-up structures is based on current market value/cost of new construction of the structure
No provision on the income restoration for the affected households losing productive assets.	Economically displaced persons will be promptly compensated for the loss of income or livelihood sources at replacement cost.
No provision to improve/restore living standards for affected vulnerable groups, poor, ethnic minorities, the elderly and disabled.	Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. All displaced are entitled to income restoration.
Section 4, 6, 9, 18 and 23 of the LAA 1894 cover these aspects	Ensure that all affected households are fully consulted and informed in a timely manner, have appropriate opportunities to participate in decisions regarding compensation and resettlement, and are provided with an avenue to have their complaints heard and resolved.

3.8 REDUCING THE GAP BETWEEN LOCAL LAWS AND ADB POLICES

To reconcile the inconsistencies between the LAA (1894) and ADB policy, the project will adopt an approach that will ensure compensation at replacement cost of all impacts, and the provision of other entitlements for affected households/individuals that may bear the loss of land, residential structure, crops/trees and other assets. The details of eligibility to entitlements are discussed in the proceeding sections.

The following objectives are used to develop the resettlement plan for the Project.

- Lack of formal title to land is not a bar to compensation.
- Involuntary resettlement is an integral part of project design to be dealt with from the earliest stage of project planning.
- Involuntary resettlement should be avoided or minimized wherever feasible.
- Community participation should be encouraged in the planning and implementation of resettlement program.
- Timely and appropriate compensation for lost assets as well as redress of grievances of Affected Persons should be provided.
- The compensation process should be fully transparent
- No land will be taken for the Project until compensation for lost assets at replacement cost is delivered to the affected/displaced person.
- Land acquisition provisions will equally apply to women and men and particular attention will be paid to women-headed households and vulnerable groups.

An income restoration strategy will be implemented to ensure that all affected/displaced persons are not worse off after the project.

3.9 Eligibility, Cut-Off Date and Entitlement

The affected/displaced persons (AP/DP) eligible for compensation and other entitlement provisions are:

- (i) All AP/DP losing land or land based assets, i.e., crops and trees whether covered by legal title/traditional land rights or without legal status;
- (ii) Tenants and share-croppers, whether registered or not;
- (iii) AP/DP losing the use of structures and utilities, including titled and non-titled owners, registered, un-registered tenants/lease holders and

encroachers/squatters; and/or

- (iv) AP/DP losing business, income, and salaries or a person or business suffering temporary effects, such as disturbance to land, crops, business operations during construction.

Entitlement eligibility will be limited by a cut-off date which is determined and pegged on 08/03/2011 for AJK side of the project. On the KP side the cut-off date is expected to be 30/04/2011. The cut-off date was established to avoid influx of outsiders or other entities speculating on potential compensation. The AP/DP and other project stakeholders were made aware of this date.

The following entitlements are applicable for AP/DP losing land, houses and incurring income losses. The AP/DPs are eligible for rehabilitation subsidies and for the compensation of lost land, structures and utilities, and livelihoods; as well as for special provisions for vulnerable AP/DP.

- (i) Farmland, Wasteland, House land, Riverbed land (including Government Land, Forest land, if any) impacts will be compensated as follows:
 - a) **Permanent acquisition:** legal/legalizable owners are compensated in cash at replacement cost in the same area plus a 15% compulsory acquisition surcharge (CAS) free of taxes and transfer costs; Leaseholders of public land will receive rehabilitation in cash equivalent to the market value of the gross yield of lost land for the remaining lease years (up to a maximum of three years). Encroachers will instead be rehabilitated for land use loss through a special self-relocation allowance.
 - b) **Temporary acquisition:** For privately-owned land (legal/legalizable owners, tenants or encroachers), which may be temporarily acquired, compensation will be equal to the average market value of of each lost harvest for the duration of the loss, and will be covered by a lease agreement. The government land that will be temporarily acquired will be covered by a lease agreement. All lands under temporary acquisition will be leased for five (5) year, after which the land will revert back to its original owners and restored to pre-construction condition or as may be specified under the relevant lease agreement.
- (ii) Residential / Commercial Assets will be compensated at replacement value as follows:

- a) Legal/legalizable owners will be compensated by cash for lost structure at replacement cost in the same area based on market value of the lost structure plus any additional compensation and assistance such as transportation allowance, special requirements for PWD, etc; the structure owners will be given sufficient time (agreed by the relevant parties) to salvage any recoverable materials.
- b) Renters are compensated by means of cash compensation equivalent to three months of rent or a value proportionate to the duration of the remaining lease.
- c) Encroachers are compensated through either a self relocation allowance covering six months of income from the land (crops planted in the affected land) or the provision of a leased replacement plot in a public owned area.

Table 3.1. Entitlement Matrix

Asset Lost	Specification	Affected Person	Entitlements
Land – Farmland, House land, Wasteland, Riverbed, Government land, Forest Land, and common land	All land losses irrespective of impact of severity	Owner (legal/legalizable)	Cash compensation at replacement cost in the same area plus 15% compulsory acquisition surcharge (CAS) free of taxes, registration and transfer costs <i>Compensation to common land will be the same as private land and will be divided among persons who have stake to such land</i> <i>Special assistance to vulnerable persons.</i>
		Renter/leaseholder	Cash compensation equivalent to three months rent or value proportionate to duration of remaining lease. <i>Special assistance to vulnerable persons.</i>
		Encroacher	Self relocation allowance covering six months of productive income from the land <i>Special assistance to vulnerable persons.</i>
Residential / Commercial Assets		Owner of structure, incl. encroacher	Cash compensation at full replacement cost in the same area for affected structure and other fixed assets free of salvageable materials, depreciation and transaction cost and transportation cost; or if partial loss, full cash assistance to restore remaining structure. <i>Special assistance to vulnerable persons.</i>
		Renter/ leaseholder	Cash compensation equivalent to three months rent or value proportionate to duration of remaining lease. <i>Special assistance to vulnerable persons.</i>
Economic Trees	All trees considered economical	Owner, as related to land ownership	Cash compensation based on agreed parameters such as volume and fruit bearing capacity and market price in the area.
Crops		Owners of land with crops	Cash compensation based on market price in the area.

FOOTNOTE: As a general entitlement, all AP/DP will be entitled to income restoration program that will be agreed and implemented by all concerned parties.

The following methodology will be adopted for assessing the unit compensation rates:

- (i) Land will be valued at replacement cost in the same area based on current market

values assessed and based on a survey of transactions.

- (ii) Houses and other structures will be valued at replacement cost in the same area, type and material of the affected item. No deductions will be made for depreciation, salvageable materials or transaction costs/taxes.
- (iii) Economic trees will be compensated at replacement cost in the same area based on the cost of wood. Fruit bearing trees will be compensated based on the type and productive age of the fruits trees and market value of the produce for the remaining period of its average life.

3.9.1 Identification of Official Representatives of each affected household and Land Parcel

Land registry records for each parcel include the names of all beneficial owners. In order to ensure order in the payment of compensation all beneficial owners of parcel of land will be asked to appoint their representative who will transact with the District Revenue Officer and the Company. This approach is preferred by the company as this is deemed participatory and inclusive. The compensation will be received only by this authorized representative with due considerations to women and men or husband and wife, and that any grievance emanating from the distribution of this compensation will be dealt under the grievance redress mechanism through recording of the complaint/dispute and appropriate advice thereon.

CHAPTER – 4

SOCIO-ECONOMIC INFORMATION AND PROFILE

4.1 INTRODUCTION

The collection of baseline data on socio-economic environment involved study of available documents, field surveys for socio-economic status of the project area in terms of land holdings, occupations and income. For this purpose participatory rural appraisal technique was used and scoping sessions were held during field survey June-September 2006 and in March-April 2010. This involved consultations and scoping sessions with primary and secondary stakeholders like owners of land, people of the area, shopkeepers, religious community leaders. Cost of land, built-up property, economic trees etc was discussed with the owners, local people, and revenue department staff. The baseline data collected in pre-designed proformas both in English and Urdu version (Annexure-3 & 4) form part of existing socio-economic conditions discussed in the following sections. Prior to actual physical and economic displacement and actual taking over of the assets, a census, socioeconomic survey of a representative sample of 15 percent of all AP/DPs and a 100% asset inventory will be conducted. The socioeconomic information and profile will be updated and all gender parameters will be delivered for analysis by also employing women as enumerators in the conduct census and inventory of assets. Sampling for the SES will be stratified to ensure the inclusion of the poor and vulnerable, different types of losses and income groups, as well as geographic locations (both sides of the river). The census parameters shall include household head and members, name, sex, age, occupation, education, ethnicity, ownership of assets including key household assets, services and access to basic services access (e.g. water, sanitation, irrigation, schools, health, government), etc. While the inventory of assets per household shall include the following parameters: property ownership, land holdings, status of ownership, structures, crops/trees, etc.

Administrative and Social Set-up

The project area falls in Districts of Muzaffarabad (AJK) and Abbottabad (Khyber Pakhtunkhwa). Union Council, under Local Government Ordinance 2001, is the lowest tier of local government. Depending upon population, villages or urban settlements are grouped into Union Councils (UC). The UC's are formed of public

representatives elected by popular vote. The next higher tiers of local government are Tehsil Council and District Council. The district administration is run by District Nazim elected by Union Council members. Social and physical infrastructure of a district is managed by District Nazim. District Coordination Officer (DCO) is the highest ranking administrative functionary of the government in a district.

Scoping Sessions

In order to obtain data on socio-economic profile, opinions and concerns of the project area population, scoping sessions were held in villages in the vicinity of weir and powerhouse sites. In particular people were informed about the scope of lost assets due to project implementation and compensation to be paid to them by the project sponsors. Annexure 5 gives summary and number of participants of scoping sessions held in the respective villages. In addition officials of relevant departments were also contacted during field surveys.

4.2 POPULATION

The population survey of the villages in the vicinity of Weir and Powerhouse sites were conducted. The population in the project area are local people belonging to settled districts of Khyber Pakhtunkhwa/ AJK; it is neither characterised by ethnic diversity nor by any indigenous people. The project will not in any way affect them. The District Census Reports 1998 of Abbottabad and Muzaffarabad issued by Population Census Organisation Islamabad were also consulted. (It should be noted that the 1998 Census is the latest official record of population). The Population data of the villages falling on weir and powerhouse sites, as in 1998 census, is shown in table 4.1 and 4.2.

Population of Weir Site Villages

There are 8 villages within 2 Km of weir site. Half of the villages fall in the Muzaffarabad district while other half in Abbottabad district as shown in Table 4.1. At annual growth rate of 2.99% and 1.82% for Tehsils of Muzaffarabad and Abbottabad, the present (2010) population of these villages totals 11,974. Number of households has decreased to 202 due to earthquake of October 8, 2005 demolishing almost all the Katcha houses in the area.

Population of Powerhouse Site Villages

There are five villages within 2 Km of Powerhouse site in Muzaffarabad district as given in Table 4.2. Their population according to Muzaffarabad District Census Report 1998 is 2,658. At annual growth rate of 2.99% for Muzaffarabad Tehsil, the present population of these villages totals 3,776.

4.3 SOCIO-ECONOMIC INDICATORS

Tables 4.1 and 4.2 also give socio-economic indicators of the population of villages within 2 Km of the weir and powerhouse site in terms of literacy ratio, availability of civic amenities like water supply and electricity.

Table.4.1 Population and Socio-Economic Indicators of Villages - Weir Site

Tehsil and District	Village Name	Area Acres	Kunhar River Bank	Population		Literacy Ratio 10+	No. of House-holds		Household Size		Household Facilities (1998)	
				1998	2010		1998	2010	1998	2010	Potable Water	Electricity Connection
Muzaffarabad	Patrind	1195	LHS	2159 (1081 + 1078) *	3066	48.6	336	-	6.4	-	28	335
Muzaffarabad	Tarcheela	-	LHS	-	752	-	-	-	-	-	-	-
Muzaffarabad	Raiter	114	LHS	321 (170 + 151) *	456	72.8	37	-	8.7	-	26	37
Muzaffarabad	Gotha	436	LHS	868 (425 + 443) *	1233	70.3	112	-	7.8	-	59	112
Abbottabad	Taitree	-	RHS	-	266	-	-	-	-	-	-	-
Abbottabad	Sarati	-	RHS	-	277	-	-	-	-	-	-	-
Abbottabad	Hundi	-	RHS	-	173	-	-	-	-	-	-	-
Abbottabad	Deedal Meera	463	RHS	1391 (669 + 722) *	1975	46.5	217	-	6.4	-	106	216
Total				4,739	8,198							

LHS: Left Hand Side, RHS: Right Hand Side, Household Size: No. of Persons/Household

* The figures in the brackets are population of males followed by females.

Table.4.2 Population and Socio-Economic Indicators of Villages -Powerhouse Site

Tehsil and District	Village Name	Area Acres	Kunhar River Bank	Population		Literacy Ratio 10+	No. of House-holds		House-hold Size		Household Facilities (1998)	
				1998	2010		1998	2010	1998	2010	Potable Water	Electricity Connection
Muzaffarabad	Thori	356	LHS	753 (342 + 411)*	1070	60.7	144	-	5.2	-	2	144
Muzaffarabad	Sarar	492	RHS	704 (335 + 369)*	1000	76.2	99	-	7.1	-	26	99
Muzaffarabad	ALDA	184	RHS	278 (147 + 131)*	395	82.4	42	-	6.6	-	42	42
Muzaffarabad	Hussan-abad	188	RHS	485 (240 + 245)*	689	76.9	70	-	6.9	-	12	69
Muzaffarabad	Dhani	186	RHS	438 (227 + 211)*	622	77.7	70	-	6.3	-	37	70
Total				2,658	3,776							

LHS: Left Hand Side, RHS: Right Hand Side, Household Size: No. of Persons/Household

* The figures in the brackets are population of males followed by females.

4.4 AGRICULTURE AND OTHER PROFESSIONS

Agriculture in Muzaffarabad and Abbottabad districts is the dominant economic activity. Majority of the farmers have their own simple irrigation systems using water of streams and springs. Wheat, maize and rice are the major crops. Crop yields are variable and the most reliable estimates of crop yields are wheat 470 Kg/Acre, maize 452 Kg/Acre, rice 320 Kg/Acre. Other professions followed by active male population of the project area are private businesses, service in government, and skilled/ semi-skilled labour.

4.5 LIVELIHOOD ACTIVITY

Livelihood activity in the project area is a little different on two sites i.e. weir and powerhouse site of the project area. There is almost no agriculture activity on powerhouse site rather people are involved in business and government jobs. About 35% of population at powerhouse site is engaged in business and about 22% is in government jobs because of nearness of Muzaffarabad city. A review is given in Table 4.3 based on the interviews with the locals during the field surveys conducted in 2006 and 2010.

Table.4.3 Livelihood Sources on the Weir and Powerhouse Sites Shown in Percentages

Sr. #	Source of Livelihood	%age at Weir Side	%age at Powerhouse Side
1.	Government/Semi-Government Jobs	6.0	22.2
2.	Business	17.8	35.2
3.	Agriculture	17.8	-
4.	Professionals	9.4	4.0
5.	Skilled Labour	8.8	11.0
6.	Unskilled Labour	28.2	19.1
7.	Others	12.0	8.5
	Total	100	100

4.6 INCOME LEVEL

It has been assessed that the following income level exists in the project area.

Category (Rs PER MONTH)	Percentage
5000 – 15,000	32%
15000 – 30,000	58%
> 30,000	10%

The National threshold level for poverty line has been fixed at \$ 1.25 per person per day and it has been estimated that about 34.5% of the population live below poverty line.

4.7 HEALTH SERVICES

The availability of health services in terms of hospitals, clinics, dispensaries and of medicines is not satisfactory in the surveyed villages around weir and powerhouse sites. Health facilities like basic health unit (BHU) / rural health centre (RHC), medical practitioner (qualified doctor or hakeem), lady health visitor (LHV) / lady health worker (LHW), traditional birth attendant (TBA) or dai are almost non-existent except for Hakeems, Dais and very small number of government or private clinics in the villages around weir and powerhouse sites. So the people have to travel long distances in case of emergency.

4.8 EDUCATION FACILITIES

The District Census Report 1998 gives 60.7% to 82.4% literacy rate in villages around Powerhouse site and 46.5% to 72.8% in the villages around weir site. The existing number of educational institutions in the villages within 2 Km of weir site and powerhouse site are shown in Table 4.4 and 4.5.

Table.4.4 Educational Facilities in the Surveyed Villages – Weir Site

Sr. #	Village Name	Educational Facilities							
		Primary School		Middle School		High School		Madrasa/ Masjid	
		Male	Female	Male	Female	Male	Female	Male	Female
1.	Patrind	0	1	1	-	-	-	6	1
2.	Tarcheela	1	1	-	-	-	-	1	-
3.	Raiter	1	-	1	-	-	-	1	-
4.	Gotha	1	1	1	-	-	-	1	-
5.	Taitree	1	1	1	-	-	-	1	-
6.	Sarati	-	-	-	-	-	-	-	-
7.	Hundi	-	-	-	-	-	-	-	-
8.	Deedal Meera	1	1	1	-	-	-	1	1
Total		5	5	5	-	0	-		2

It will be seen at present no male or female high school exists in the surveyed villages of weir site. However, there are five primary schools, 5 middle schools, 11 Madrassas for male and 5 primary school, and 2 Madrassas exist for female population in the surveyed villages of weir site.

Powerhouse area has one high school each for male and female population. For males there are 4 middle schools 4 primary schools, 5 Madrassas and for females 4 primary schools, 5 middle schools and 2 madrasas in the surveyed villages.

Table.4.5 Educational Facilities in the Surveyed Villages - Powerhouse Site

Sr. #	Village Name	Educational Facilities							
		Primary School		Middle School		High School		Madrasa/ Masjid	
		Male	Female	Male	Female	Male	Female	Male	Female
1.	Thori	1	1	1	1	1	1	1	1
2.	Sarar	1	1	1	1	-	-	1	1
3.	Alda	-	-	-	1	-	-	1	-
4.	Hassanabad	1	1	1	1	-	-	1	-
5.	Dhani	1	1	1	1	-	-	1	-
Total		4	4	4	5	1	1	5	2

4.9 CULTURAL SITES

Mosques and graveyards exist in each village of the project area. There are no sites of archaeological and historical importance in the project area.

4.10 WOMEN IN PROJECT AREA

Life in the villages is entirely male-dominated and women face many problems due to restricted mobility, lack of decision-making, poor access to social services, limited productive employment opportunities, early marriages, no family planning practices and no awareness about health and hygiene. According to the women, health is one of the biggest problems in their villages. Diseases like diarrheal, cholera, chest-infections, goiter, abdominal problems and seasonal infections (cold, cough, etc.) are very common among the villagers. The women often suffer from health problems after childbirth and there are no regular immunizations of the children.

The people have difficulty in obtaining the necessary medicines. Serious illnesses force people to go to Abbottabad/ Mansahra/ Muzaffarabad for treatment and most of them cannot afford this. Since the women lack awareness about health and hygiene, the children suffer from various health problems due to poor hygienic conditions.

According to the 1998 Census Report, sex ratio is 100.2 in Abbottabad Tehsil whereas in Muzaffarabad Tehsil the sex ratio is 107.3. However, the sex ratio in 14 villages occurring in the vicinity of the project as described in Table 4.1 & 4.2 comes out to be 96.7.

4.11 MINORITY GROUPS

There are no minority ethnic groups or any other groups which can be considered indigenous people in project area. It is pointed out that Constitution of Pakistan does not recognise any ethnic/ linguistic indigenous groups; it takes notice only of religious minorities.

CHAPTER – 5

INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

5.1 INFORMATION DISCLOSURE

This chapter explains the process of consultation with relevant stakeholders of the Patrind Hydropower Project. It documents how the consultations were done, what were the results and how SHPL plans to continue the process during construction and operation phase. The report describes the information disclosed to relevant stakeholders prior to project implementation and presents the responses from the information recipient. The report also contains the Information Disclosure Policy of SHPL that it intends to implement during construction and operation phases for keeping relevant stakeholders informed about the project and about the any or all related issues that may have a bearing on stakeholders.

5.2 Methodology of Stakeholder Selection and Process of Consultation

The process of identification of stakeholders started with the development of the basic project plan by the technical consultants. Using such plan and area maps, the technical consultants marked the land and water courses that would be directly or indirectly affected by the project. This included the land that would be required for the construction of various structures and that which would be submerged in the head pond; parts of river Kunhar that would form the upstream pond and downstream of the weir; and roads and infrastructure required for the construction of the project. The consultants for the EIA, using such information, conducted field tours of the area and identified the villages and areas which would be impacted by the project. The consultants with the help of local people, including their elected representative and notables, of such villages collected the relevant details necessary for EIA and also identified the land owners whose lands were directly impacted, permanently or temporarily. The consultants also used the published information from the census to develop the demography of the area. Considering the basic project plan developed by the technical consultants, the EIA consultants also identified, and consulted with, relevant governmental departments and institutions such as fishery, wildlife and forest departments.

The field team consisting of environmentalists, sociologist and ecologist undertook the process of consultation with governmental agencies, community representatives and affected people. The field team shared the information about the project and its impacts with stakeholders and solicited their opinion and views. Field trips were conducted in June 2006, and in March and April 2010. The consultation process helped the affected persons regarding land acquisition and bringing clarity on issues that might be raised during project implementation. The process also included the preparation of an introductory and information brochure in Urdu about the Project, its location, main impacts and benefits.

The consultation activities will continue until detailed designed of the project is arrived at. The consultation will focus on ensuring that compensation at replacement cost in the same area is determined. Receipt of this compensation will be monitored with the help of a third party.

5.3 COMMUNITY CONSULTATIONS

Community consultation process was started at an early stage in the project cycle. This ensures that feedback from communities and other stakeholders directly or indirectly affected by the project can be used to adjust and improve the project's design, planning, and implementation and help structure the project to be both environmentally and socially acceptable. The consultants held meetings with primary stakeholders to assess any potential issues that could be raised due to the project activities. Between 2006 and 2010, nine villages were consulted involving approximately 90 household heads. The count of villages and consulted households will continue to increase as consultation is continuing. During these consultations a simple, non-technical description of the project was given, along with an overview of the project's likely human and environmental impacts.

Following the project description, detailed discussions were held so that the participants could voice their concerns and opinions. These concerns and suggestions were recorded in field notes.

Questionnaire prepared and used in the field is placed as Annex -3. Urdu version of the questionnaire is included as Annex -4.

Apart from consultations with the local community, consultations with concerned public representatives and officials of the relevant line government departments

were also held. The details of community consultations showing names of participants are given in the Annex-8

5.4 Outcome of Consultations

During session held for information disclosure and community consultation, the overall response from the project area population was positive. Everyone welcomed the project as being beneficial to the region. Among the major topics which came up for discussion included the following.

- **Community Concerns**
During scoping sessions it has been observed that more than 95% of participants did not express any objections to implementation of the proposed project only a small minority expressed some apprehensions about compensation payment.
- **Land Acquisition**
Generally community apprehensions pertained to the land and houses to be acquired for the project implementation. They expected project authorities to pay them timely compensation on the basis of current market prices.
- **Employment**
The participants emphasized the need to ensure the appointment of locals in all non-technical and support services through a transparent process. They demanded that during operation stage of the project preference should be given to the locals.
- **Project Benefits**
Local community also expressed the opinion that the project should be designed in a manner that all people including the poor should be benefited from the project like availability of electricity, establishment of schools and health clinics.
- **Traffic Hazards**
The participants of the public consultations expressed concerns over the safety hazards that could result from the increase in the roadside traffic particularly during the construction phase of the project. Traffic will produce heavy noise affecting the environment of the area. Participants emphasized to evolve realistic noise management plans to curtail its impact on rural community. In order to pre-empt roadside accidents of both humans and animals, a traffic alert system like guards and traffic signs should be available before the construction starts.
- **Cooperation of the Project Sponsors**
The participants expressed that the project proponent should maintain and encourage a cooperative attitude towards the community paying due

attention to their concerns arising out of project implementation.

5.5 Meetings with Officers of the Government Departments

Offices of the government and NGO's were visited. They were apprised of the project by sharing available information with them. These include Departments of Wildlife, Fisheries, Forest, Health and Agriculture in Muzaffarabad and Abbottabad. Representatives of NGOs like WWF and Sungi were also contacted in these cities. Published information relating to the project area was collected. This included literature on forests, fisheries, wildlife, geology, landforms, land use, climate, water resources and district census reports. Record of meetings with relevant Government Department Officers is given in Table 5.1.

Table.5.1 Record of Meetings with Relevant Governments Officers

Date	Place	Organization/ Person Consulted Position	Reason for visit Topics discussed
05-06-06	Abbottabad	Hazara Wildlife Division M. Hussain Khan District Forest Officer M. Abdullah Range Forest Officer	Wildlife in Project Area Wildlife protection measures Forest types / trees
05-06-06	Abbottabad	Hazara Forest Division Rustam Khan District Forest Officer	Forest types / trees Location of forests / pastures Sustainable use of forests by community
06-06-06 & 02-03-10	Muzaffarabad	P&D Building Secretariat Bashir Qureshi Director General Dr. Syed Asif Shah Secretary P&D and Environment	Legal Framework of AJK Guidelines of AJK
02-03-10 &	Muzaffarabad	Revenue Department Nisar Shah & Gulbaz Revenue Clerk	Role of District Revenue Officer in land acquisition and payment of compensation Redress procedures
03-03-10	Abbottabad	NGO- SUNGI M. Arshad, Mrs. Tahira Awan	Community awareness about development projects

Date	Place	Organization/ Person Consulted Position	Reason for visit Topics discussed
		Community Facilitator	Possible role of SUNGI in Patrind HPP
16-09-10	Muzaffarabad	M. Asad Divisional Forest Officer	Forest types / trees Location of forests / pastures Sustainable use of forests by community
16-09-10	Muzaffarabad	Syed Mufassar Gillani Subject Matter specialist, Forest	Forest types / trees Location of forests / pastures Sustainable use of forests by community
16-09-10	Muzaffarabad	Mir Abdul Rehman Forster	Forest types / trees

5.5.1 Public Hearing in Muzaffarabad - AJK

A public hearing was held on August 05, 2010 in Muzaffarabad, AJK under the requirement of EPA – AJK. The meeting was attended by about 150 participants including legislator of AJK Assembly, Senior Govt. Officers, Union Council Nazims, NGOs and Civil Society Members as well as project affectees. List of participants is appended as Annexure – 4. Photographs of the public hearing are placed at the end of this report.

CHAPTER – 6

SCOPE OF LAND ACQUISITION

6.1 INTRODUCTION

The scope of land acquisition and resettlement was defined by conducting field surveys and by collection of primary and secondary data as well as through consultations with affected persons and communities in the villages of the project area. The surveys were conducted using pre-designed Performa / Questionnaire. The land areas to be acquired for the project are shown in figures 6.1 and 6.2. The key effects on assets and displacement are discussed in the following sections.

6.1.1 PROCEDURAL FORMALITIES UNDER LAND ACQUISITION

The private land will be acquired under the Land Acquisition Act (LAA) and will be owned by GOAJK once acquisition procedure and compensation to owners is delivered. GOAJK will then lease this land to the company for the concession period of the project. The compensation to the owners however shall be paid by SHPL. On the KP side the land shall be owned by SHPL directly.

Notification under Section 4 of LAA will be issued by DC Muzaffarabad for land acquisition on powerhouse site. Thus, all new private construction in the affected areas will be legally prohibited. Another Notification under Section 4 of LAA will be issued by DC Muzaffarabad/Abbottabad for land acquisition on weir site. This will warrant that, besides the land acquisition process, resettlement of APs shall start receiving active attention. The status in this regard is as per following;

6.1.2 Ongoing Cadastral Survey and Negotiation Process

Staff of revenue department and SHPL is busy in cadastral survey and in the finalization of cost of affected houses. At the same time the process of price negotiation for land and houses is also underway. The findings of survey till date are given as Annex- 6 and negotiated price will be added in the report accordingly on completion of these processes. Draft land lease agreement is attached as Annex-1 in the report.

6.1.3 Procedure and Structure of Investigation

The survey work consisted of collection of data for land acquisition and resettlement. Contacts with concerned officials of Government departments, and undertaking consultations with affected persons and communities in the villages were undertaken. This survey was conducted using pre-designed proforma, Annexure 3. All collected data are based on the status of the EPC Contractor design of 2010. The Urdu version of the questionnaire asked from the locals during field surveys on various aspects of land acquisition and resettlement plan

is given in Annexure 4.

6.2 RELATED BASELINE DATA

6.2.1 Permanent Land Acquisition

In total 744.3 kanal of riverbed, farmland and wasteland will be acquired permanently for constructing the Patrind Hydropower Project as shown in Table 6.1 below.

Table.6.1. Permanent Land Acquisition by Type and Extent of Land

Sr. No.	Project Component	Affected Land (Kanal*)			
		State owned Land/ Riverbed	Farmland	Wasteland	Total
1	Reservoir Impounding	31.5	284.15	199.2	514.85
2	Weir Structures	7.95	-	56.35	64.3
3	Powerhouse	13.85	30.8	45.45	90.1
4	Surface Surge Chamber	75	-		75
Total Permanent Land Acquisition		128.3	314.95	301	744.25

* 1 Ha = 10,000 m² = 2.471 Acre

1 Acre = 8 Kanal = 4047 m²

6.2.2 Temporary Land Acquisition

There is need for temporary acquisition of land for the construction camp, storage camp and temporary disposal of excavated material in the vicinity of the weir site and powerhouse site. The following Table 6.2 shows the details of the land area proposed for temporary acquisition.

Table.6.2. Temporary Land Acquisition by Type and Extent of Land

Sr. No.	Project Component	Affected Land (Kanal)			
		State owned/ Riverbed	Farmland	Wasteland	Total
1	Construction/Storage Camp at Weir Site	7.2	15.05	12.95	35.2
2	Colony of Expatriate construction staff, Switchyard, labour camp, access road, bridge, batching plant at Powerhouse Site	46.35	-	39.35	85.7
3	Access Road along the Right Bank of Kunhar river to weir site	4.9	13.8	18.6	37.3
Total Temporary Land Acquisition		58.45	28.85	70.9	158.2

* 1 Ha = 10,000 m² = 2.471 Acre

1 Acre = 8 Kanal = 4047 m²

6.3 AFFECTED HOUSES

While considering project layout alternatives and selecting areas for deposition of excavated material, efforts have been made to avoid taking over of houses. However, 13 houses will be directly affected due to construction of powerhouse displacing 158 persons in village Alda and 6 houses on weir site due to submergence affecting 27 persons in Tarcheela village. In addition, 9 houses on KPK side will be directly affected displacing 57 persons. Table 5.5 give details of all these houses, names of their owner and number of occupants subject to displacement.

Table.6.3. Houses Directly Affected by Project Implementation

Sr. No.	Owner's Name	No. Of Houses	No. of Occupants	No. of Rooms			No. of Kitchen	No. of Bathroom
				Type B	Type C	Type D		
Power House								
1	Names deleted for privacy reasons	1	30	7	7	2	3	3
2		1	12	6		2	2	2
3		1	3	-	-	2	1	1
4		1	7	1	1	-	1	1
5		1	11	5	-	-	1	1
6		1	17	1	-	-	-	1
7		1	15	-	7	-	1	1
8		1	7	4	3	2	1	2
9		1	9	2	-	-	1	1
10		1	6	-	-	2	1	1
11		1	15	2	3	2	1	2
12		1	18	6	-	-	1	2

Sr. No.	Owner's Name	No. Of Houses	No. of Occupants	No. of Rooms			No. of Kitchen	No. of Bathroom
				Type B	Type C	Type D		
13		1	8	2	5	-	2	1
Headpond at Weir Site AJK								
14		1	1	-	2	-	-	-
15		1	6	4	-	-	-	2
16		1	3	-	-	2	-	1
17		1	7	1	3	-	1	1
18		1	5	-	2	-	1	1
19		1	5	-	2	1	1	1
Headpond at Weir Site KPK								
20		1	4	2	1	-	1	1
21		1	5	2	2	-	1	1
22		1	3	1	2	1	1	1
23		1	7	1	2	-	1	1
24		1	6	2	1	1	1	1
25		1	6	1	1	1	1	1
Diversion Tunnel at Weir Site KPK								
26		1	17	-	7	-	1	1
Deedal (KP)								

Sr. No.	Owner's Name	No. Of Houses	No. of Occupants	No. of Rooms			No. of Kitchen	No. of Bathroom
				Type B	Type C	Type D		
27		1	6	-	2	-	-	-
28		1	3	-	1	2	-	-
	Total	28	242	50	54	20	26	32

* Room Type B – Brick Masonry: mud mortar, roof: iron girders, RCC batons and bricks

* Room Type C – Bricks in mud mortar/ plaster, tin roof, wooden beams/planks, mud cover

* Room Type D – No bricks, wooden beams, mud cover

6.4 COMMERCIAL ASSETS

The project implementation does not involve loss of any commercial assets except for water mill located in the headpond area. It will be submerged after the creation of headpond. It belongs to Mr. Muhammad Hussain of Schian village of Muzaffarabad district.

6.5 AFFECTED TREES

As shown in the following table 6.4, it is estimated that total number of 222 out of 624 trees will be submerged because of creation of pond behind the weir. All these trees may not be cut as many trees may withstand periodic shallow submergence. However, the compensation will be paid for all the trees. Composition of 624 trees includes 126 mixed fruit, 31 timber and 498 firewood trees. The mixed fruit trees are of the types like Shahtoot, Wallnut, Apricot, Pear and Angeer. Compensation of the owners of the trees will be identified and will be included in the detailed inventory of affected asset per household/affected person. Types of trees and their botanical names are given as under;

Table.6.4. Types of Affected Trees

Sr. No.	Name of Trees	
	Common Name	Botanical Name
Firewood		
1.	Phagwar	<i>Ficus palmate</i>
2.	Pipal	<i>Ficus religiosa</i>
3.	Kiker	<i>Acacia nilotica</i>
4.	Phulai	<i>Acacia modesta</i>
5.	Beence	-
6.	Balkald	-
7.	Kau	<i>Clea cuspidate</i>
8.	Nim	<i>Azadirachata indica</i>
9.	Daraba	<i>Cedrela serrata</i>
10.	Dhraik	<i>Melia Azadrach</i>
11.	Sherol	<i>Alnus nitida</i>
12.	Dravia	<i>Cederela serrata</i>
13.	Talhi	<i>Dilbergia sisso</i>
14.	Bhala	<i>Gymnosporia spp.</i>
Timber		
1.	Cheer	<i>Pinus roxburghlii</i>
2.	Tali	<i>Dilbergia sisso</i>
3.	Deodar	<i>Cedrus deodara</i>
Fruit Trees		
1.	Apricot	<i>Prunus armeniace</i>
2.	Pear	<i>Pyrus cummunis</i>
3.	Wallnut	<i>Juglans regia</i>
4.	Shahtoot	<i>Morus alba</i>
5.	Angeer	<i>Ficus carica</i>

6.6 CROP COMPENSATION

The land areas where construction workers and storage camps are to be located are cultivable. The construction of these camps may result in damage to standing crops. Where possible by the construction schedule, farmers will be permitted to harvest crops. Where this is not possible, compensation will be awarded on the basis of market value of the crop. Depending upon the crops, an assessment of market prices of the crops was conducted in consultation with officials of revenue department and agriculture department as well as local people at the preparation of EIA stage by the consultants. An average value of Rs. 15,000 per acre (Rs.1, 875/kanal) has been assessed as compensation for crops. This will apply to the land area of 69 Kanal which will be subject to

temporary acquisition for construction of the camps.

6.7 SUMMARY OF AFFECTED ASSETS

A summary of assets to be affected due to head pond submergence, location of construction camps, storage areas, weir site, powerhouse site, maintenance road, access roads is given in Table 6.5.

Table.6.5. Summary of Key Effects

Sr. #	Item	Unit	Quantity
1	Permanent Land Acquisition	Acres	93
2	Temporary Land Acquisition	Acres	19.8
3	Affected Houses	Nos.	28
4	Commercial Assets	No.	1
5	Economic Trees	Nos.	624

6.8 ACQUISITION OF LAND/ASSETS FOR PROJECT IMPLEMENTATION

6.8.1 Land Acquisition for Project Access Roads

The plan for access road is established considering relocation of weir, sand trap, powerhouse, surge tank and etc. Minimum 15.0 m radius of curve was applied to improve traffic capacity, safety and workability. The road width was extended by 7.0m and emergency parking bay will be installed. The access road to powerhouse starts in lower Chattar reaching prior to proposed bridge site near left bank of Jhelum river cover a distance of 1.7 km. This portion of 1.7 km is all metalled requiring possible widening at 2 to 3 locations. The distance beyond metalled portion before reaching the proposed bridge is 200 m and a proper road of 7m width needs to be constructed there.

Table.6.6. Route Outline of the Proposed Access Roads

Type	Section	Length (m)	Width (m)	Remarks
Weir	Boi Road – Weir	240	7.0	Weir Access
Weir	Construction Camp – Weir – Storage Camp	906	4.0	Maintenance Road at Weir Site
Powerhouse	Lower Chattar – Bridge	200	7.0	Powerhouse Access
	Bridge – Powerhouse	84	7.0	Powerhouse Access
Surge Tank	Powerhouse – Surge Tank	1,162	4.0	Surge Tank Access
Switchyard	Switchyard	96	7.0	Switchyard Access

For actual accessibility for transportation of equipment, material and manpower to the sites of the weir and powerhouse construction, some length of metalled road as well as one bridge across Jhelum river is required to be built.

Weir Site

The right hand side of weir on Kunhar river is accessible by Boi Road for construction of weir, diversion tunnel and coffer dam. Muzaffarabad road (Hazara Trunk Road) crosses Kunhar river at Garhi Habibullah and passes by the left hand side of the weir site. A length of less than ½ km of metalled road is required to access left hand side of the weir site, proposed headrace tunnel, its intake and sand traps.

Powerhouse Site

The location of the proposed powerhouse is on the right hand side of Jhelum River about 9 km upstream of the confluence of Kunhar with Jhelum river in Muzaffarabad district. This location requires construction of both a permanent bridge and a length of metalled road.

Figure 6.1

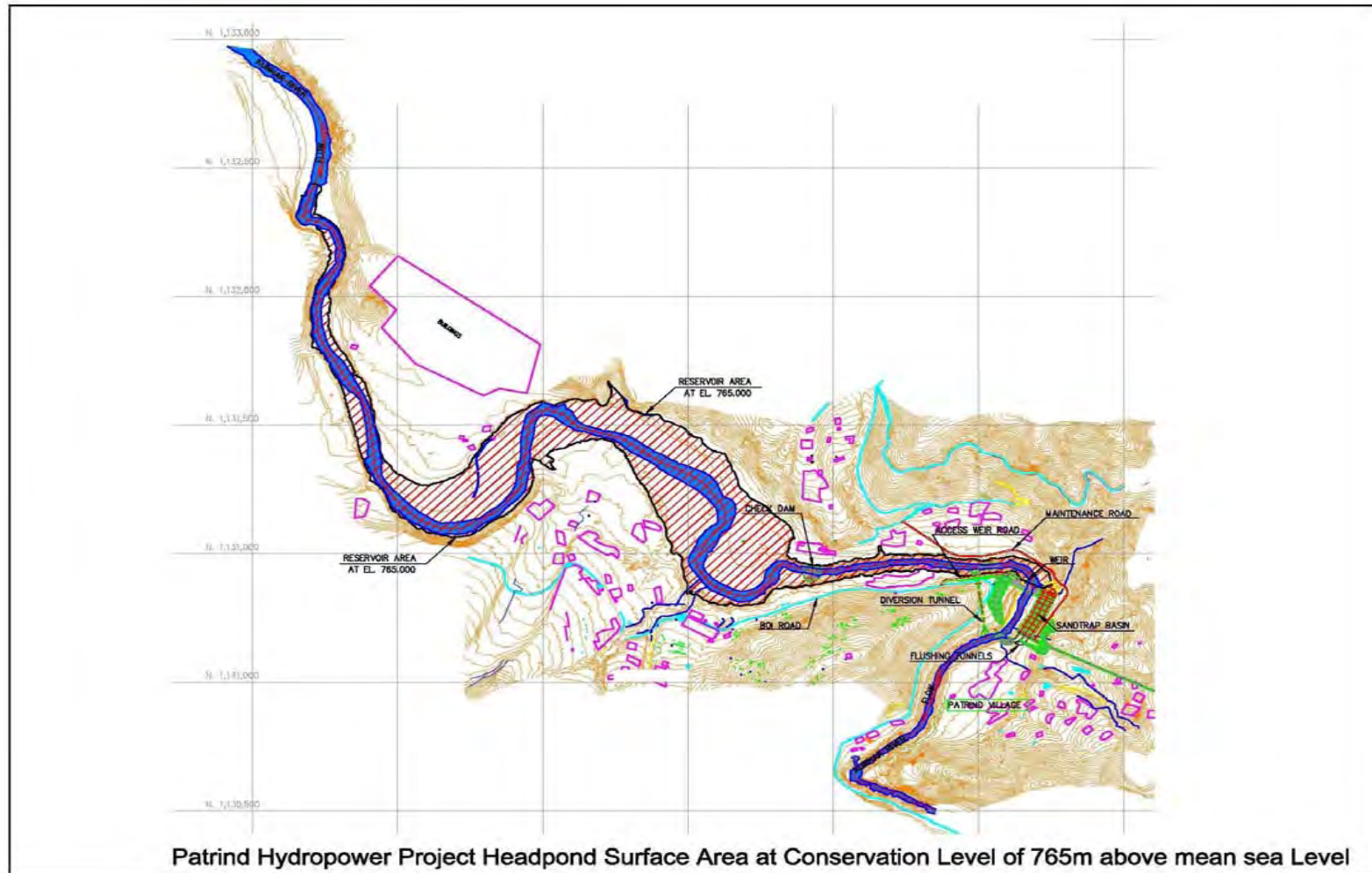
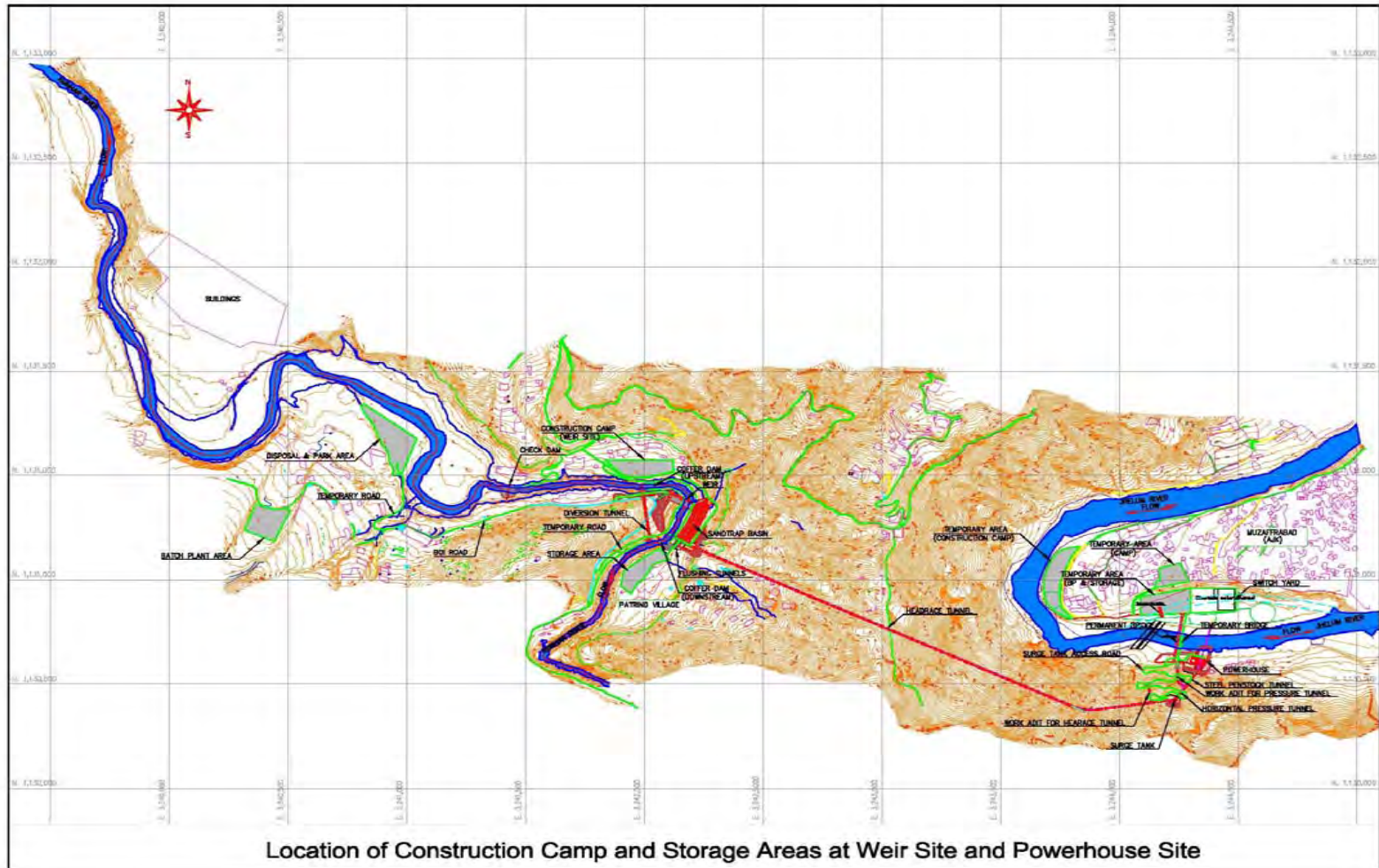


Figure 6.2



CHAPTER – 7

INCOME RESTORATION STRATEGY

7.1 INTRODUCTION

Income restoration is an important component of resettlement where affected persons have lost their productive base, businesses, jobs or other income sources regardless of whether they have also lost their houses. Experience has shown that displaced families with good access to sufficient productive resources were able to retreat, and sometimes improve, lost productive systems and livelihoods. Successful income restoration is achieved primarily when projects allow resettled persons to share in the immediate benefits created by the very project that caused displacement by favouring the affected persons to exploit commercial opportunities around the newly created infrastructure.

7.2 INCOME RESTORATION PROGRAMMES

Resettlement programmes aiming to prevent impoverishment, restore incomes and build viable communities are normally of two main types. First, land-based resettlement programmes provide resettlers with enough land to regain and build farms and small rural businesses. Second, non-land-based strategies include activities such as occupational training, employment, small business and enterprise development for job creation. The common problems in developing income restoration programmes include lack of institutional and technical capacity to plan and implement micro-projects for income restoration and neglecting of vulnerable groups in income restoration programmes. Therefore, it is important to involve vulnerable groups, particularly women, and other community based organisations in income restoration planning and implementation.

7.3 SPECIFIC ACTIVITIES TO BE DISCUSSED WITH THE AP/DP

Based on the detailed survey to be carried out, the updated RP will include a detailed income restoration program, if required, which will be prepared in consultation with the affected people. The program will indicate the number of targeted persons for income restoration activities and the types of activities proposed including institutions who will be conducting training and livelihood development activities. The budget for the implementation of these programs will be discussed in detailed with the AP/DP and shall be shouldered by SHPL.

Programs	Schedule/season	Where to be implemented	Target AP/DP (e.g. women)
Training on improving skills for construction worker	TBA	In all affected areas	Men of working age
Ecotourism	TBA	In impounding area	Men and women
Raising fingerlings	TBA	In impounding area	Women

7.4 RESETTLEMENT SITE SELECTION

The selection of resettlement sites that provide people with reliable access to productive resources (arable and grazing land, water, and woodlands), employment, and business opportunities are a key to the restoration of livelihoods. Resettlement should avoid breaking up communities, because the maintenance of special networks linking members of the affected communities may be critical to the successful adaptation of those communities to their new circumstances.

7.5 RELOCATION OPTIONS FOR PHYSICAL RESETTLEMENT

The following are the six options available for relocation and physical resettlement of displaced population.

- **No Resettlement**

The option of no resettlement should be considered if alternatives are too expensive or policy objectives cannot be met.

- **On-Site Resettlement**

Where the population densities are relatively low, it may be an option to consolidate the members of an affected community thus making room for project facilities without relocating the community to another site.

- **Partial Resettlement**

Where the whole site is not required for project facilities, it may be possible to minimize or isolate land take. As a result, only a fraction of the affected community may require physical relocation.

- **Resettlement to Nearby and Multiple Site**

Where full resettlement is necessary, the impact of displacement can be minimized by relocating affected people to several small sites near the affected area; the extent to which this type of resettlement is possible or desirable depends on the structure of the community and on the land

market.

- **Resettlement to Margins of Developed Area**

The margins of developed areas offer cheaper land than more central locations but normally still have access to utilities and infrastructure.

- **Resettlement to Distant Sites**

Land cost and availability considerations often favour the selection of resettlement sites far from project facilities, but the disadvantages of such sites include lack of employment and business opportunities and of wider social support networks; the cost of infrastructure provision is likely to be high; and social services will likely have to be specially provided.

7.6 PATRIND HYDROPOWER PROJECT

The issues and guidelines for income restoration planning and implementation are based on IFC strategy. In the case of Patrind Hydropower Project the extent of population displacement and loss of land, particularly farmland, are not significant. Land-for-land strategy, according to IFC practice, has remained a difficult policy to implement. The strategy for income restoration of affected persons, at best, is based on training programmes in terms of small businesses, computer skills, health care technology and education. Operation and maintenance of the project has the potential to create job opportunities for local people. During construction the EPC Contractor and during operation the Project Sponsor will prefer to award such opportunities to the locals in terms of unskilled labour or semi-skilled labour after training, which preferably would be awarded to those affected by the project.

CASH COMPENSATION – THE PREFERRED OPTION

The project implementation will directly affect people in terms of loss of land and loss of houses. During field surveys, persons/ communities affected by Patrind Hydropower Project were individually as well as collectively interviewed to ascertain their opinion for resettlement and relocation. All owners of land and of houses directly affected by the project showed their interest in receiving cash compensation. None of them opted to receive land for land compensation or land for construction of new houses. As a result no resettlement sites have been identified or investigated. It is to be noted that the main source of livelihood of the affectees opting for cash compensation work in urban areas and are not

dependent upon the meagre income (if any) from the lost land/ houses.

CHAPTER – 8

INSTITUTIONAL ARRANGEMENTS AND SCHEDULE, MONITORING AND EVALUATION, GRIEVANCE REDRESS MECHANISM

8.1 INTRODUCTION

The resettlement of people affected by Patrind Hydropower Project is the responsibility of the Sponsor, which will, therefore, play a key role in implementing the resettlement components of the project. For the efficient implementation and management of resettlement activities, an Environmental Management Unit (EMU), comprising environmental and social expert, representative of SHPL and that of EPC will be created. EMU will be responsible for implementing resettlement activities as follows:

- Ensure proper, timely and transparent payment of compensation to Affected Persons.
- Ensure EPC contractor(s) compliance requirements of safeguards for construction safety, occupational health, traffic management, dust suppression, solid waste disposal, wastewater disposal, air pollution, noise and vibration, biodiversity, occupational safety, transportation, storage of flammable and explosive materials.
- Ensure construction sites are screened to avoid dispersion of dust/ pollutants in the surrounding atmosphere.
- Avoid or control cutting of trees by EPC Contractor(s) in the project area.
- Liaise with neighbouring communities for their concerns about disturbance/ disruption due to construction activities.
- Ensure proper disposal of construction spoil.

8.1.1 Organizational Setup

Keeping in view the resettlement related baseline data and scope of resettlement activities, the EMU will have adequate staff. The record of land and of land ownership is maintained in the District Revenue Departments in Abbottabad and Muzaffarabad. To initiate and proceed with land acquisition, District Revenue Officer (DRO) of each district will be designated as Land Acquisition Collector (LAC). In the capacity of LAC, the DRO will depute adequate number of revenue officials to work with EMU staff for performance of functions in acquisition of land/ assets required for Patrind Hydropower Project

implementation.

Under Land Acquisition Act 1894 (LAA) only persons officially registered with land revenue department as owners or those who possess formal lease agreement are considered eligible for compensation. The process of land acquisition will, however, be shortened by replacing formal LAA method with direct negotiation with land owners because LAA process often takes too long due to legal formalities and court interventions. Method of direct negotiation with owners is more practical method and minimizes the subsequent grievances and lengthy litigation often involved in land acquisition cases.

By using direct negotiations, the decisions have to be made in consensus with the Affected Persons. Thus it is a participatory approach to land acquisition by which Affected Persons concerns and interest can be taken care of beforehand.

To achieve fair and timely compensation for lost assets, Land Valuation Committees (LVC) for each area will be established. The LVC will be charged with the responsibility of assessing fairness of the prices of land and assets if determined by the Land Acquisition Collector (LAC). In the event of difference in the assessment of LVC and LAC the assessment of LVC shall prevail.

The Land Valuation Committee will consist of the following members.

A representative of District Co-ordination Officer (DCO), who will serve as Chairman of LVC

EMU Representative

SHPL representative

Two representatives of Affected Persons (APs) from the concerned area, to be nominated by the AP's

8.1.2 Certificates of Compensation

EMU will prepare signed Certificate of Compensation for each landowner or other affectee. Following particulars will be noted on each certificate.

- Name, Father's Name, CNIC No. of owner of land or other asset (entitled)
- Physical details of land/ asset including name of village.
- Value of land/ asset to be acquired and compensation due
- Terms on which such compensation will be made.

Copies of Certificate of Compensation will be provided to LAC and the village elder to ensure both transparency and subsequent cross checking of actual payments. This is essential for equitable treatment of affectees.

8.1.3 Transparency of Compensation Process

Following measures will be adopted to ensure transparency of the compensation process.

- Representation of affectees on Land Valuation Committee.
- Issuance of Certificates of Compensation to each affectee and public availability of these Certificates.
- Payment of compensation directly into bank accounts of the affectees.

These measures will greatly help in minimising the possibility of affectees not receiving full compensation.

8.2 MONITORING AND REPORTING

8.2.1 Internal Monitoring

EMU is a regular monitoring body which will keep record of all the grievance and maintenance rather improvement of environmental conditions of the area and uplift of socio-economic conditions of the APs in particular and residents of and around the project area in general. EPA is an external body which will keep a check on such parameters. The EPC contractor has already submitted a plan for the uplift of the area which is included in EMP (A separate stand alone document). A detailed monitoring plan is included in EMP. reporting procedure is also indicated. As desired by the ADB a six monthly monitoring report will be provided during the implementation of RP and two years thereafter.

A major are to be monitored is the displaced persons whose house structures were taken due to land acquisition. The monitoring should be done as much as practicable to ensure that members of the affected households, including if any, women, children, elderly, handicapped, have adequate replacement housing.

8.2.2 External Monitoring

In addition to the internal and government agency monitoring, an external expert to verify the monitoring information relevant to the implementation of this RP will be retained by SHPL. The external expert will (i) verify the internal monitoring undertaken by the Company; (ii) conduct site visits and review resettlement implementation semi-annually; (iii) review records of

compensation payments and verify provision of entitlements to affected people and meet with relevant district and provincial authorities involved in land acquisition; (iv) advise on safeguard compliance issue that arise in connection with the Project; (v) in the event of non-compliance, report to ADB any non-compliance identified and recommend corrective actions to be incorporated in the corrective action plan to be prepared by the Company. Monitoring by the external expert will commence upon financial closure.

8.2.3 Reporting

As required by the ADB SPS for projects with significant impacts, a six monthly monitoring report will be provided during the implementation of RP and two years thereafter. Monitoring reports will be made publicly available. All the monitoring reports will be posted in ADB website. Upon completion of resettlement plan implementation, a completion report will be submitted. The completion report will be validated by the external monitor to confirm whether resettlement plan objectives have been met.

8.3 POLICY COMMITMENT FOR PROJECT IMPLEMENTATION INCLUDING RESETTLEMENT PLAN

The following committees have been established to effectively involve the APs in the process of land acquisition; resettlement and grievance redress mechanism (details in Chapters 8&9).

1. Land Valuation Committee (LVC) comprising District Coordination Officer (DCO), Representative of SHPL and two reps of APs.
2. Land Acquisition Committee (LAC) comprising Environmental Management Unit (EMU), District Revenue Officer (DRO), Land Acquisition Collector and SHPL.
3. Grievance Redressal Committee (GRC) comprising DRO, UC Nazim, three APs representatives and SHPL Representative.

8.4 GRIEVANCE REDRESS MECHANISM

Regardless of its scale, involuntary resettlement inevitably gives rise to grievances among the affected population over issues ranging from entitlements, rates of compensation and eligibility criteria. Timely redress of such grievances is vital to the satisfactory implementation of resettlement and to the completion of the project on schedule. The Project therefore must ensure that affected persons have access to grievance redress procedures and that such procedures are in place to allow them to lodge a complaint or a claim.

APs will have the right to file complaints and/or grievance on any aspect of land acquisition and resettlement such as inventories, valuation, and entitlements. Any AP who has had his/her land or structure or altered and believes that they have not been compensated or assisted in compliance with their entitlements will be able to express their grievances through a grievance redressal mechanism that has been instituted under this RP.

All complaints and resolutions will be properly documented by the concerned Grievance Redressal Committee (GRC) and be available for review for monitoring purposes. As part of the post-evaluation and monitoring, the grievances will be reviewed by the Independent Monitoring Consultant, and decision regarding grievances shall be consistent with approved policies and entitlements.

A GRC will be formed under the RP in order to resolve disputes amicably through consultants. The GRC is very important as it is expected that most cases, if not all would be resolved by the GRC. The committee will hear complaints and facilities solutions and the process, as a whole will promote dispute settlement through mediation to reduce litigation.

Grievances are best redressed through project management, local civil administration, or other channels of mediation acceptable to all parties. Such channels of mediation may involve customary and traditional institutions of dispute resolution. The project company shall make every effort to resolve grievances at the community level. Recourse to the legal system should be avoided except as a last resort.

The spirit explained in the above paragraphs will be maintained as far as possible through the following mechanism

8.5 GRIEVANCE REDRESS COMMITTEE (GRC)

In the case of Patrind Hydropower Project, major grievances that might require mitigation include the following:

- AP's not enlisted
- Compensation inadequate
- Dispute about ownership
- Delay in disbursement of compensation

To meet the requirements a Grievance Redress Committee (GRC) will be constituted to resolve such issues and provide AP's a public forum to address and resolve such issues adequately. The GRC may be comprised of the following members.

- District Revenue Officer, as the Chairman:
- Union Council Nazim, as Principal Member
- SHPL Representative
- Three Affected Community Representatives, as Members

It shall deliver its decision within two to four weeks of registration of the case.

8.6 FUNCTION OF THE GRC

The GRC will meet whenever grievances have been forwarded to them. The decision of the GRC will not be binding and APs can take recourse to EPAs if he/she so desires.

The functions of GRC are as under:

1. Record the grievances of APs, categorize and prioritize them and provide solution to their grievances arising out of land and property acquisition and eligibility for compensation;
2. The GRC may undertake site visit and ask for relevant information in order to perform its functions;
3. Fix a time frame for resolving the grievance preferably in of 14 days;
4. Inform aggrieved parties directly about the status/development of their case;
5. Inform in writing of their decision to the aggrieved party.

8.7 GRIEVANCE REDRESS PROCEDURES

This grievance redress procedure along with specific time frame and mechanism for resolutions of complaints will be adopted. This procedure states that any AP who has a complaint or is not satisfied with the compensation provided can complain in writing to the GRC. The GRC will deal with the grievance and complaint received from the APs and take necessary actions to solve the issue.

The AP's and local stakeholders were briefed on the function and responsibilities of the grievance redress committees and the grievance redress procedures. The AP's appreciated and welcomed the establishment of the committees and voiced their support towards this initiative. They felt that such a mechanism would ensure that land replacement and compensation packages would be fair.

8.8 IMPLEMENTATION SCHEDULE

Within the project cycle, the implementation schedule provides the time frame for commencement and completion of the resettlement activities. Table 8.1 shows the Implementation Schedule for Resettlement Plan of Patrind Hydropower Project.

Table 8.1: Implementation Schedule/Responsibilities for Resettlement Plan of Patrind Hydropower Project

Sr. No.	Resettlement Plan Activity	Responsibility		Year 0	Year 1				Year 2				Year 3				Year 4			
		Primary	Secondary	Pre-Project	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Community Consultations	SHPL	EMU																	
2	RP Disclosure - Brochure in Urdu	SHPL	EMU																	
3	Site Demarcation of Affected Lands	DRO	EMU																	
4	Land Acquisition Process	LAC	EMU																	
5	Notification under LAA Section 4	LAC	DRO																	
6	Inventory - taking of Lands/ Assets	DRO,SHPL	EMU																	
7	Compensation Assessment (Revised)	LVC,DRO	EMU																	
8	Payment of Compensation	SHPL,DRO	EMU																	
9	Grievance Redress	GRC	EPA																	
11	Possession of Land/ Assets for Project Works	SHPL,LAC	EMU																	
12	Start of Preliminary Works	Contractor																		
13	Contractor Receives Approval for Main Contract	SHPL	Contractor																	
14	Construction Works	Contractor	EMU																	

AP : Affected Person
 LAC : Land Acquisition Collector
 EMU : Environmental Management Unit
 RP: Resettlement Plan
 DRO: District Revenue Officer

NOTE: The major elements of the updated Resettlement Plan will be disclosed to affected people in a form and language they can understand and submitted to ADB for review prior to taking over of Land/Assets. The updated RP will be disclosed on ADB website.

CHAPTER – 9

COMPENSATION, BUDGET AND FINANCING

9.1 INTRODUCTION

This Chapter deals with resettlement compensation, budget and financing plan of Patrind Hydropower Project. The Company has to defray the actual costs incurred in carrying out land acquisition activities and to provide funds in a timely manner.

9.1.1 Compensation Payment Procedure

The organizational setup as explained above will be followed as the basis of procedure for payment of compensation for acquisition of land and other assets. The compensation payment procedure will therefore consist of the following steps.

- Company will develop and maintain computer based Management Information System (MIS) to deal with resettlement related data and activities.
- The staff of EMU and LAC will conduct field surveys to physically identify the land/ other assets to be acquired for project implementation.
- Ownership of land/ assets will be confirmed with reference to District Revenue Department records as well as by using all other available means.
- After valuation of land and other assets has been completed by Land Valuation Committee (LVC), payment of compensation will be made to the Affected Persons out of the Compensation Fund.

It is proposed that for Patrind Hydropower Project the compensation payment to all Affected Persons should be initiated now by following the institutional arrangements proposed.

9.2 VALUATION OF ASSETS

The assets which are lost due to implementation of development projects include land, houses/ built-up property, crops and trees.

In case of Patrind Hydropower Project, most significant impact is the loss of land due to reservoir impounding claiming the largest proportion. Valuation of land for compensation began with determining market value of land. In determining market value of land, following criteria has been used.

- Discussing options with owners
- The opinion of the valuers or experts
- The price paid within a reasonable time in bonafide transactions of lands in the neighborhood and possessing similar advantages like location, type of usage, and level of productivity.
- By capitalizing the net annual income from the land.

It is proposed to achieve fair and timely compensation for lost assets through establishment of Land Valuation Committees (LVC) for each area, which will be charged with the responsibility of determining fair prices of land and assets in that area and recommending them to the Land Acquisition Collector for adoption in the award.

The Land Valuation Committee consists of the following members.

- A representative of District Co-ordination Officer (DCO), who will serve as Chairman of LVC.
- EMU Representative
- SHPL representative
- Two representatives of Affected Persons (APs) from the concerned area, to be nominated by the AP's.

LAC may join the Committee, but only as an observing member, with no voting rights. It is to be noted that LVC will be an advisory committee. However, LAC, who has the authority to fix the market value, will in most instances accept the recommendations of LVC, and thus in effect provide legal sanction to the Committee and it should be noted that LAC will not exercise its authority to fix the market value, but rather it will provide additional guidance as to how replacement value of each affected asset in the same area will be achieved.

In order to determine realistic market value of land, LVC has considered the following aspects.

- One year averages of land sales in the concerned area for the year immediately prior to the data of commencement of land acquisition.
- Location of land i.e. proximity to settlements, roads, etc
- Type of land usage i.e. residential, agricultural, (irrigated, rain-fed) orchards, or other
- Demand of the owner

- Any other factor considered pertinent.

The weight age to be given to each of these aspects will be decided by the Committee of each village. The Committee will determine fair market values on the basis of the above and recommended them to LAC for a decision. Any AP if dissatisfied with the compensation award will have the right of appeal before the established grievance redress mechanism established for the implementation of this RP.

9.2.1 Valuation of Land, Houses, Crops and Trees

Assets like built-up property will be valued at full replacement cost i.e. the amount sufficient to replace lost asset plus transition cost. In applying replacement cost method, depreciation of structures/ asset should not be taken into account.

In case farmers are not permitted to harvest crops on land already acquired, due to exigency of construction schedule, cash compensation based on market value of crop will be made.

Value of Land

Market assessment in the project area as well as consultation with district revenue department officials were undertaken to arrive at prices of land. The land values given by the revenue department officials were slightly lower than market prices. The market prices were assessed on the basis of recent market transactions and consultation with the affected persons and other community members; in most cases transactions are verbal and not documented.

Table.9.1. Land Prices in the Project Area

Sr. No.	Type of Land	Rate / Acre* (Rs.)	Rate / Acre** (US\$)
1.	Farmland	1,920,000	22,857
2.	Wasteland	640,000	7,619
3.	State owned/ Riverbed Land	400,000	4,762

* Rate/ acre of land costs include 15% CAS for involuntary resettlement.

** Exchange rate 1 US\$ = Rs. 84

Table.9.2. Permanent Land Acquisition

Sr. No.	Area	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
1	Power House & Access Road (ALDA Village) AJK	River Bed	13.85	50,000	692,500	11,720,500
		Farmland	30.80	240,000	7,392,000	
		Wasteland	45.45	80,000	3,636,000	
2	Weir Site Construction Area & Sandtrap AJK	River Bed	7.95	50,000	397,500	4,905,500
		Farmland	0.00	240,000	0	
		Wasteland	56.35	80,000	4,508,000	
3	Reservoir Impounding (AJK)	River Bed	28.55	50,000	1,427,500	66,935,500
		Farmland	236.15	240,000	56,676,000	
		Wasteland	110.40	80,000	8,832,000	
4	Reservoir Impounding (Deedal) KP	River Bed	2.95	50,000	147,500	18,771,500
		Farmland	48.00	240,000	11,520,000	
		Wasteland	88.80	80,000	7,104,000	
5	Surge Tank, Access road to Surge Tank	River Bed	0.00	50,000	0	6,000,000
		Farmland	0.00	240,000	0	
		Wasteland	75	80,000	6,000,000	
	Total		744.25			108,333,000

9.2.2 Cost of Temporary Land Acquisition

The land areas requiring temporary acquisition will be leased for 4.5 years.

Table.9.3. Cost of Temporary Land Acquisition

Sr. No.	Area	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
1	Colony of Expatriate construction staff, Switchyard, labour camp, access road, bridge, batching plant (Lower Chatter) AJK	River Bed	46.35	50,000	2,317,500	5,465,500
		Farmland	0.00	240,000	0	
		Wasteland	39.35	80,000	3,148,000	
2	Construction Camp (Patrind/Tarcheela) AJK	River Bed	7.20	50,000	360,000	5,008,000
		Farmland	15.05	240,000	3,612,000	
		Wasteland	12.95	80,000	1,036,000	
3	Access Road (Patrind/Tarcheela) AJK	River Bed	4.90	50,000	245,000	5,045,000
		Farmland	13.80	240,000	3,312,000	
		Wasteland	18.60	80,000	1,488,000	
	Total		158.20			15,518,500

9.2.3 Cost of Affected Houses

As a result of project implementation, a total of 28 houses will be affected. The compensation shall be given to the recognized representative of the household/owners on prevailing market prices. The detail is given in Table 9.4 below:

Table.9.4. Cost of Affected Houses

Sr. No.	Owner's Name	No. Of Houses	No. of Occupants	No. of Rooms			No. of Kitchen	No. of Bathroom	Total Cost
				Type B	Type C	Type D			(PKR)
Power House									
1	Sarfaraz Khan s/o Essa Khan	1	30	7	7	2	3	3	3,000,000
2	M. Munir S/O M. Maskeen	1	12	6		2	2	2	1,100,000
3	Mrs. Raisham Jan W/o M. Maskeen	1	3	-	-	2	1	1	1,000,000
4	M. Pervez s/o M. Fageer	1	7	1	1	-	1	1	1,000,000
5	M. Ashraf s/o Faqir Muhammad	1	11	5	-	-	1	1	1,500,000
6	M. Akbar s/o Mehar Wali	1	17	1	-	-	-	1	1,300,000
7	M. Farooq S/O M. Maskeen	1	15	-	7	-	1	1	1,500,000
8	Abdul Qayyum s/o Mehar Wali	1	7	4	3	2	1	2	2,000,000
9	M. Aslam s/o Samandar Khan	1	9	2	-	-	1	1	1,500,000
10	M. Nawaz s/o Samander Khan	1	6	-	-	2	1	1	1,000,000
11	Mahar Wali s/o Faqir Muhammad	1	15	2	3	2	1	2	1,700,000
12	M. Maskeen s/o Gohar Ali	1	18	6	-	-	1	2	1,500,000
13	Tanveer Ahmad s/o Abdul Rashid	1	8	2	5	-	2	1	1,500,000
14	Jalal S/O Abdul Qayyum	1	1	-	2	-	-	-	1,500,000
15	Muhammad Bilal S/O Abdul Qayyum	1	6	4	-	-	-	2	1,500,000
16	Abdul Qayyum S/O Sher Zaman	1	3	-	-	2	-	1	1,500,000
17	Muhammad Tariq S/O Sher Zaman	1	7	1	3	-	1	1	1,500,000
18	Muhammad Naseer S/O Sher Zaman	1	5	-	2	-	1	1	1,500,000

Sr. No.	Owner's Name	No. Of Houses	No. of Occupants	No. of Rooms			No. of Kitchen	No. of Bathroom	Total Cost (PKR)
				Type B	Type C	Type D			
19	Muhammad Naseem	1	5	-	2	1	1	1	1,500,000
Headpond at Weir Site KPK									
20	Abdul Qayyum S/O Sher Zaman	1	4	2	1	-	1	1	1,500,000
21	Aurangzaib	1	5	2	2	-	1	1	1,500,000
22	Muhammad Sajjad	1	3	1	2	1	1	1	1,500,000
23	Manzoor Ahmed	1	7	1	2	-	1	1	1,500,000
24	Muhammad Rashid	1	6	2	1	1	1	1	1,500,000
25	Muhammad Arif	1	6	1	1	1	1	1	1,500,000
Diversion Tunnel at Weir Site KPK									
26	Aziz ur Rehman, M. Saleem, Ghulam Ali s/o Hassan Ali	1	17	-	7	-	1	1	1,500,000
Deedal (KP)									
27	Muhammad Siraj S/O Muhammad Sadiq	1	6						1,500,000
28	Sarfaraz Khan S/O Muhammad Sadiq	1	3						1,500,000
	Total	26	242	50	51	18	26	32	42,100,000

9.2.4 Cost of Economic Trees

A total of 624 trees will be affected by the project implementation. The trees are generally of younger age, between 3 – 16 years. It is estimated that a single tree on an average would yield about 70 cu. ft. of wood. The cost of fire wood trees according to local market for Kiker, Beence, and Shahtoot is Rs. 260. per cu.ft., Wallnet, Tali, Deodar, Cheer at Rs. 900 per cu.ft. and the remaining trees like Dhraik, Daraba, Nim, Balkald, Kau, Pipel, Phulai, Phagwar, and Sherol at Rs 100 per cu.ft. The cost of fruit trees is not calculated on the basis of wood volume (shown as 0 in the table below). It is based on fruit bearing capacity of the tree. The fruit trees like Angeer is rated at Rs. 10,000 per tree whereas apricot and pear @ Rs. 12,000 per tree each. The ownership of the economic trees will be determined during the conduct of detailed inventory of assets to be affected, which will be done before any land is taken from the owners. Accordingly the total cost of 624 trees to be cut due to project implementation is

estimated at Rs. 7,462,300 for compensation as detailed in Table 9.5.

Table.9.5. Cost of Economic Trees

Name of Trees	Type of Trees	Numbers	Cu. ft.	Rs./Cu. ft.	Total Cost (Rs.)
Trees in Reservoir Impounding					
Sherol	Firewood	30	70	100	210,000
Shahtoot	Fruit	22	0	260	400,400
Dhraik	Firewood	16	70	100	112,000
Wallnut	Fruit	4	0	900	252,000
Daraba	Firewood	14	70	100	98,000
Fig	Fruit	16	0	10000/Tree	160,000
Nim	Firewood	6	70	100	42,000
Balkald	Firewood	25	70	100	175,000
Kau	Firewood	23	70	100	161,000
Cheer	Timber	14	70	900	882,000
Tali	Timber	6	70	350	147,000
Pipal	Firewood	8	70	100	56,000
Kikar	Firewood	6	70	260	109,200
Phulai	Firewood	7	70	100	49,000
Beence	Firewood	6	70	260	109,200
Deodar	Timber	11	70	900	693,000
Phagwar	Firewood	8	70	100	56,000
Sub Total		222			3,711,800
Trees at Power House Site					
Sherol	Firewood	200	70	100	1,400,000
Phagwar	Firewood	19	70	100	133,000
Wallnut	Fruit	9	0	900	567,000
Mixed Fruit Trees	Fruit	35	0	10000	350,000
Sub Total		263			2,450,000
Trees at Construction Camp at Weir Site					

Name of Trees	Type of Trees	Numbers	Cu. ft.	Rs./Cu. ft.	Total Cost (Rs.)
Apricot	Fruit	34	0	12000	408,000
Pear	Fruit	16	0	12000	192,000
Sub Total		50			600,000
Trees at Storage Camp at Weir Site					
Dhraik	Firewood	20	70	100	140,000
Phagwar	Firewood	10	70	100	70,000
Dravia	Firewood	14	70	100	98,000
Apricoat	Fruit	12	0	12000	144,000
Sub Total		56			452,000
Trees at Maintenance Road					
Dhraik	Firewood	6	70	100	42,000
Tali	Timber	1	70	350	24,500
Bhala	Firewood	6	70	100	42,000
Sherol	Firewood	6	70	100	42,000
Phagwar	Firewood	2	70	100	14,000
Sub Total		21			164,500
Trees at Access Road					
Sherol	Firewood	7	70	100	49,000
Phagwar	Firewood	5	70	100	35,000
Sub Total		12			84,000
Total Cost of Trees (Rs.)		624			7,462,300

9.2.5 Cost of Commercial Assets

Except for one small water mill subject to submergence by headpond, no commercial assets will be affected by project implementation. The compensation payment at Rs. 400,000 for the water mill including its land area has been agreed with the water mill owner, Mr. Muhammad Hussain of village Schian.

9.3 COST OF ENVIRONMENTAL AND SOCIAL MONITORING

For regular monitoring of events like cash compensation for land, houses, commercial assets and trees and redressal of grievances, an independent

monitoring unit has been created. The unit will keep an eye on the transactions and complaints. They will keep record of all such events and help to resolve the compliance through EPC contractor and SHPL. The contractor will employ environmental supervisors; they will keep liaison with the environmental monitoring unit. The cost for running the unit during the construction period has been calculated and given in Table 9.6.

Table.9.6. Cost of Environmental and Social Monitoring

Sr. No.	Title	Duration	Cost (Pak. Rs.)
1.	Environmental and Social Training	Requirement basis	500,000 (lump sum)
2.	Tree Plantation	Lump sum	500,000
3.	Contingencies	3 %	50,000
Total			1,050,000

9.4 RESETTLEMENT AND ENVIRONMENTAL MONITORING COST

Table below summarises resettlement cost of Patrind Hydropower Project.

Table.9.7. Resettlement and Environmental Monitoring Cost

Sr. No.	Item	Quantity	Unit	Unit Cost Rs/Unit	Estimated Cost (Rs.)
1	Permanent Land Acquisition	93.038	Acres	Variable	108,333,000
2	Temporary Land Acquisition	19.779	Acres	Variable	15,518,500
3	Affected Houses	28	Nos.	Variable	42,100,000
4	Commercial Assets	1	No.	400,000	400,000
5	Economic Trees	624	Nos.	Variable	7,462,300
6	Environmental & Social Monitoring	-	-	-	1,050,000
Total					174,863,800

The total of Resettlement and Environmental Cost adds up to Rs. 174,863,800.

At conversion factor of 1 US\$ = Rs. 84, the cost is US\$ 2,081,711.90. The cost

of permanent land acquisition is the largest component of the resettlement cost at 64 % of the total.

The budget for the implementation of this RP will be borne by SHPL and a contingency amount, 10% of the total estimated LAR budget, is also earmarked to satisfy any verified claimed in the future.

ANNEXURES

DRAFT LEASE AGREEMENT

DRAFT LAND LEASE AGREEMENT

THIS LAND LEASE AGREEMENT (hereinafter this "Agreement") is made at Muzaffarabad, Azad Jammu & Kashmir and dated as of _____ between THE PRESIDENT OF THE AZAD JAMMU & KASHMIR, for and on behalf of Azad Government of the State of Jammu & Kashmir (the "GOAJK or the "Lessor"), and STAR HYDRO POWER LIMITED, a public limited company incorporated under the laws of Pakistan, with its principal office located at 112, Siddiq Trade Centre, Lahore, Pakistan (the "Lessee or the "Company").

WHEREAS:

- (A) The GOAJK, as a matter of policy, has decided to involve the private sector in the generation of hydroelectric power using the water resources within the Azad Jammu & Kashmir (the "AJ&K");
- (B) The Lessee has proposed to design, finance, insure, acquire a site, procure machinery & equipment, construct, complete, own, operate, maintain and transfer to the Complex Transferee (as hereinafter defined) a hydroelectric power generating facility of approximately 150 MW installed capacity at Patrind village, district Muzaffarabad, in the AJ&K, [*], to generate and supply electric power to the Power Purchaser;
- (C) The GOAJK issued a Land Lease Notification No. [*] dated [*] for the grant of land on lease to the Lessee (the "Notification") [*Add amending notification, if any*]
- (D) Pursuant to the requirements of Grant of Khalsa (Ground rent and lease) Rules, 1985 the Parties are entering into this Agreement

NOW, THEREFORE, in consideration of the mutual benefits to be derived and the representations and warranties, conditions and promises herein contained, and intending to be legally bound hereby, the GOAJK and the Company hereby agree as follows:

ARTICLE I – DEFINITIONS AND RULES OF INTERPRETATION

- 1.1 Definitions: Unless the context otherwise requires, capitalized terms used in this Agreement shall have the respective meanings given to them below.

"Agent" – means the agent designated in writing to the GOAJK by the Lenders.

"AJ&K Force Majeure Event" – means a force majeure event as defined in the AJ&K Implementation Agreement and/or the Water Use Agreement (as the case may be).

"AJ&K Implementation Agreement" - means the AJ&K Implementation Agreement, together with all schedules attached thereto, dated [*] entered therein between the President of the State of Jammu & Kashmir for and on behalf of the GOAJK and the Company and to which the Council shall become a party, as amended or as amended and restated from time to time.

"Business Day" – means any Day that banks in Pakistan is legally permitted to be open for business.

"Commercial Operations Date" – bears the meaning attributable thereto in the AJ&K

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Implementation Agreement.

"Company Events of Default" – bears the meaning attributable thereto in Section 4.2(b)(i).

"Complex" – bears the meaning attributable thereto in the AJ&K Implementation Agreement.

"Complex Transferee" - means GOAJK or any entity or body designated by the GOAJK, for the transfer of the Complex at the end of the Term, which entity or body shall be advised in writing by the GOAJK to the Company at least one (1) Year before the expiry of the Term

"Consent" – bears the meaning attributable thereto in the AJ&K Implementation Agreement.

"Council" means the Azad Jammu & Kashmir Council constituted under the Azad Jammu & Kashmir Interim Constitution Act 1974.

"Day" – means each twenty-four (24) hour period beginning and ending at 12:00 midnight Pakistan standard time.

"Election Notice" – bears the meaning attributable thereto in Section 4.3(b)

"Evaluation Period" – bears the meaning attributable thereto in Section 4.3(b)

"Extended Cure Period" – bears the meaning attributable thereto in Section 4.3(b)

"Financial Closing" – bears the meaning attributable thereto in the AJ&K Implementation Agreement.

"Financing Documents" – bears the meaning ascribed thereto in AJ&K Implementation Agreement.

"GOAJK" – means the Azad Government of the State of Jammu and Kashmir, and its successors.

"GOP" – means the Government of the Islamic Republic of Pakistan.

"Guarantee" – bears the meaning attributable thereto in the AJ&K Implementation Agreement.

"Initial Cure Period" - bears the meaning attributable thereto in Section 4.3(a)

"Islamic Financing Arrangements" – means any mode of financing recognized as Islamic financing under the applicable Laws of AJ&K and the Laws of Pakistan or by the Islamic Development Bank and includes lease and mark-up financing

"Land" – bears the meaning ascribed thereto in Section 2.1.

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"Laws of Pakistan" – means the federal, provincial and local laws of Pakistan, including without limitation all orders, rules, regulations, statutory rules and orders, executive orders, decrees, judicial decisions, notifications, or other similar directives made pursuant thereto issued by any executive, legislative, judicial or administrative entity, as any of them may be amended from time to time.

"Lenders" – means the lenders (including financiers under Islamic Financing Arrangements) party to the Financing Documents together with their successors, transferees in their capacity as Lenders and their assigns.

"Loss" – means any loss, claim, damage, liability, judgment, payment or obligation (excluding any indirect or consequential loss, damage, liability, payment or obligation), and all costs and expenses (including without limitation reasonable legal fees) related thereto and amounts paid in settlement in lieu thereof.

"Pakistan Force Majeure Event" – means a force majeure event as defined in the GOP Implementation Agreement and/or Power Purchase Agreement (as the case may be).

"Parties" - means the GOAJK and the Lessee, as the case may be

"Power Purchase Agreement" - means the Power Purchase Agreement, dated [*], entered into between the Power Purchaser and the Company for the purchase by the Power Purchaser of electric power generated by the Complex, as amended or as may be amended or amended and restated by the parties thereto from time to time

"Power Purchaser" – bears the meaning ascribed thereto in the AJ&K Implementation Agreement.

"Project" - means the development, design, engineering, insurance, procurement of machinery and equipment, financing, construction, permitting, completion, testing, commissioning, ownership, operation and maintenance, restoration and transfer of the Complex and all activities incidental thereto.

"Relevant Authority" – bears the meaning ascribed thereto in the AJ&K Implementation Agreement.

"Security Package" – bears the meaning ascribed thereto in the AJ&K Implementation Agreement.

"Site" - means the parcel of land obtained pursuant to the Land Lease Agreement or such other land, spaces, waterways, roads, wells and any rights, including rights-of-way for the interconnection and transmission facilities, acquired or to be acquired and leased or owned by the Lessee for the purposes of the Complex on, through, above or below the ground on which the Complex or any part thereof is to be built (including, without limitation, any

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working areas required by the Lessee and the Contractors, villages, townships, and camps for the accommodation of the employees of the Lessee and the Contractors, all rights of way and access from public highways and railway, air and seaward access if applicable).

"Succession Notice" – bears the meaning ascribed thereto in Section 4.2(b)(i).

"Technical Limits" – bears the meaning ascribed thereto in the AJ&K Implementation Agreement.

"Term" – bears the meaning attributable thereto in Section 3.1(g)

"Water Use Agreement" – means the Water Use Agreement dated [*] entered into between the President of the State of Jammu & Kashmir for and on behalf of the GOAJK and the Company (including all schedules thereto) for the use by the Company of water of the [*] Kunhar river for the generation of Net Electrical Output in accordance with the terms and provisions of such Agreement, as amended or as may be amended and restated by the parties thereto from time to time.

1.2 Rules of Interpretation. In this Agreement:

- (a) The headings are for convenience only and shall be ignored in construing this Agreement;
 - (b) The singular includes the plural and vice versa;
 - (c) References to Sections, Recitals and Schedules are, unless the context otherwise requires, references to Sections of, and Schedules and Recitals to, this Agreement;
 - (d) Unless otherwise provided herein, whenever a consent or approval is required by one Party from the other Party, such consent or approval shall not be unreasonably withheld or delayed;
 - (e) In carrying out its obligations and duties under this Agreement, each Party shall have an implied obligation of good faith;
 - (f) A reference to any legislation or legislative provision includes any statutory modification or re-enactment of or legislative provision substituted for, and any subordinate legislation under, that legislation or legislative provision; and
 - (g) Nothing shall be construed or interpreted as limiting, diminishing or prejudicing in any way the rights of the Company, the Contractors, the Investors or the Lenders to claim any benefit provided under the Laws of AJ&K (whether in effect now or in the future).
 - (h) To the extent that any provision of the Schedules to this Agreement is inconsistent with the provisions of this Agreement, the provisions of this Agreement shall prevail.
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ARTICLE II – DETAILS OF LAND

2.1 [Details of Land]

(a) Details of Land leased through notification ([*] Kanal)

SURVEY NUMBERS	KANAL	MARLAS
Total		

(b) [Details of New Land]

Land Description					
Khasra No.	Kanal	Marla	Khasra No.	Kanal	Marla
			Total		

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Land Description					

Land in all [*] Kanal (the "Land")

ARTICLE III – TERMS AND CONDITIONS OF LEASE

3.1 Terms and Conditions of Lease

- (a) The Land shall only be used for the purpose for which it is being granted.
 - (b) The Land including building constructed thereon may be assigned or mortgaged with Lenders for obtaining loans and/or finances within the Term.
 - (c) The Lessee shall be provided possible protection by GOAJK against any judicial or other litigation etc. concerning the Land.
 - (d) Lease rights in the Land will not be alienated to any person entity by way of sale or gift other than in case of an enforcement of security/mortgage by Lenders.
 - (e) The Complex shall be transferred to GOAJK on expiry of the Term.
 - (f) The Lessee shall be bound to construct the Complex on the Land in accordance with the no objection certificate issue by the [*] NTDC vide No.[*] dated [*].
 - (g) The term of Lease shall be thirty years, which shall commence from the day the earlier notification No. [*] dated [*] was issued and on expiration of initial lease term the GOAJK may extend lease period as it deem fit (the "Term"). Rate of lease shall be [*] and lease money for a period of [*] years amounting to Rupees [*] has been deposited into the treasury. After [*] years the Lessee shall be bound to deposit, lease money according to the [prevailing/above rates], in the state treasury. On expiration of the Term the Land shall revert back to the GOAJK free from all encumbrances unless the security/mortgage on the Land has been emplaced.
 - (h) Permission would be obtained from the concerned authority before raising construction on the land.
-

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- (i) The Lessee shall be strictly bound to abide by the terms and conditions of the lease and right to revoke the lease shall vest in GOAJK. Any material breach of such terms and conditions will be treated as Company Event of Default subject to the rights and remedies available to the Company or Lenders under this Agreement and AJ&K Implementation Agreement.
- (j) No event shall be a Company Event of Default (i) if it results from a breach by either of the GOAJK or the Council of the AJ&K Implementation Agreement, (ii) if it results from a breach by the GOAJK of the Water Use Agreement or this Agreement, (iii) if it results from a breach by the Power Purchaser of the Power Purchase Agreement, or (iv) if it results from a breach by the GOP of the GOP Implementation Agreement or the Guarantee or (v) if it occurs as a result of or during an AJ&K Force Majeure Event or (vi) if it occurs as a result of or during a Pakistan Force Majeure Event.

ARTICLE IV – ASSIGNMENT

4.1 Assignment by the GOAJK

The GOAJK may not assign or transfer all or any part of its rights or obligations hereunder without the prior written consent of the Lessee.

4.2 Assignment by the Lessee

(a) The Company may not assign or transfer all or any part of its rights or obligations hereunder without the prior written consent of the GOAJK. Notwithstanding the provision of the immediately preceding sentence, for the purpose of financing the Project, in connection with the Financial Closing, the Company may assign to, or create a security interest in favour of, the Lenders in the Company's rights and interests under or pursuant to (i) this Agreement, (ii) any agreement or document included within or contemplated by the Security Package, (iii) the Complex, (iv) the Site, (v) the moveable, immoveable and intellectual property of the Lessee, and (vi) the revenues or any of the rights or assets of the Lessee. The GOAJK shall execute all such acknowledgements of any security created in accordance with this Section 4.2 as are reasonably requested by the Company to give effect to the foregoing.

(b)(i) The Lenders shall have all rights expressly granted in their favour in this Agreement or in any direct agreement concerning the Project between the GOAJK and the Lenders or the Agent. Except in respect of such rights, the Lenders shall not exercise any of the rights of the Company hereunder assigned to them under the Financing Documents unless and until such time as the Agent elects that the Lenders or their designee shall

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succeed to the Company's interest under this Agreement, whether by exercise of the rights or remedies of the Lenders under the Financing Documents or otherwise, in which case the Agent shall give notice to the GOAJK of the occurrence and continuance of an event of default under the Financing Documents and of such succession by the Lenders or their designees as the case may be (the "**Succession Notice**"). As soon as practicable prior to the delivery of any such Succession Notice, the Agent shall notify the GOAJK of the preliminary intent of the Lenders or their designee to succeed to such interest, which notice shall not be binding upon the Lenders or their designee and shall not constitute a Succession Notice. Within twenty five (25) Days after delivery of such preliminary notice, the GOAJK shall notify the Agent of all events of default of the Company under this Agreement ("**Company Events of Default**") (or events that with delivery of notice and the passage of time would become Company Events of Default) which are, or after delivery of a Succession Notice would be, required to be cured by the Lenders or their designee in accordance with this Section 4.2(b). Such notice by the GOAJK to the Agent shall state (A) all amounts due to the GOAJK under this Agreement as at the date of such notice, (B) all amounts which may become due to the GOAJK under this Agreement as at the date of such notice and the events which have occurred under this Agreement giving rise to such amounts, (C) all amounts claimed by the GOAJK under this Agreement as at the date of such notice which are then in dispute with the Company, and (D) any additional amounts (contingent or otherwise) accruing as at the date of such notice under this Agreement until paid to the GOAJK and the events which have occurred under this Agreement giving rise to such amounts, together with formulas for determining such amounts. Such notice by the GOAJK to the Agent may be updated by the GOAJK to re-quantify such amounts and/or identify any additional events and the amounts related thereto by written notice to the Agent at any time prior to succession by the Lenders or their designee to the Company's interest under this Agreement.

(ii) Upon succession by the Lenders or their designee to the Company's interest under this Agreement in accordance with Section 4.2(b)(i), the Lenders or such designee, as applicable, shall cure all defaults by the Company under this Agreement within the Extended Cure Period (as defined in Section 4.3) (other than those that are not required to be cured pursuant to Section 4.2(c) [and other than damages, liabilities and penalties incurred by the Company under Section 7.1, except for damages, liabilities or penalties arising while the Lenders or such designees, pursuant to the rights and remedies of the Lenders under the Financing Documents, have assumed control of the Complex, arising during the period prior to the Lenders' or such designee's succession to the Company's interest under this Agreement and that were notified by the GOAJK to the Agent in writing on or before the delivery of such Succession Notice in accordance with Section 4.2(b)(i); provided, however, that the aggregate liability of the Lenders or their designee, as the case

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may be, shall strictly be limited to the Lenders' or their designee's interest in the Complex, and; provided, further, that the Lenders or their designee shall have no liability for breaches of the Company arising prior to the delivery of a Succession Notice other than to cure the breaches notified by the GOAJK pursuant to Section 4.2(b)(i), and the liability of the Lenders or their designee to the GOAJK in respect of all liabilities of the Company under or relating to this Agreement prior to the delivery of a Succession Notice shall not exceed the total amount specified by the GOAJK in the latest notice delivered by it in accordance with Section 4.2(b)(i), as such amount may be adjusted in accordance with the formulas specified in such notice.

(iii) Except as otherwise set forth in this Section 4.2(b), neither the Lenders, the Agent nor the Lenders' designee shall be liable for the performance or observance of any of the obligations or duties of the Company under this Agreement, nor shall the assignment by the Company of this Agreement to the Lenders pursuant to Section 4.2(a) give rise to any duties or obligations whatsoever on the part of any of the Lenders owing to the GOAJK.

(iv) The Lenders or their designee may at any time following the delivery of a Succession Notice give the GOAJK notice terminating the Lenders' or their designee's obligations and rights under this Agreement (without affecting the continuation of the Company's obligations towards the GOAJK thereunder). Such notice shall designate a date on which such obligations and rights will terminate and on and after such nominated date the Lenders or their designee shall be released from all obligations and liabilities under this Agreement (other than those obligations and liabilities which have arisen under this Agreement prior to such nominated date). Upon such nominated date, subject to the expiration of the applicable cure period provided in Section 4.3, the GOAJK may exercise without restriction all of its rights under this Agreement.

(c) Subject to Section 4.2(b)(i) and 4.2(b)(ii), upon delivery of notice by the Agent to the GOAJK of the occurrence and continuance of an event of default under the Financing Documents and delivery by the Agent to the GOAJK of a Succession Notice, the Lenders either directly or through their designees shall have the right, among others, to (A) take possession of the Complex and prior to the Commercial Operations Date, complete construction of the Complex and operate the same and, after the Commercial Operations Date, operate the same and (B) cure any continuing Company Event of Default as provided under Section 4.3 of this Agreement. With effect from the delivery to the GOAJK of a Succession Notice, until the delivery of a notice terminating the Lenders (or their designee's) obligations pursuant to Section [6.2(iv)], the Lenders (or their designee, as the case may be) shall assume and enjoy the rights, powers and privileges and, subject to this Section 6.2(c), shall become jointly and severally liable with the Company to perform and

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discharge the obligations, liabilities and duties of the Company under this Agreement and the GOAJK shall perform and discharge the obligations, liabilities and duties of the GOAJK under this Agreement as if the Lenders (or their designee) were an original party to this Agreement on a joint and several basis with the Company from the date of execution thereof; provided that during any such period, all notices, demands and other communications delivered to or made on the GOAJK in exercising the Company's rights under this Agreement shall only be delivered or made by the designee (as identified by the Agent in the Succession Notice) or the Agent (if a designee has not been so identified). Notwithstanding the foregoing the Lenders or their designees shall have no obligation to cure any Company Event of Default that is not capable of being cured, and no right will exist for the GOAJK to terminate this Agreement based upon such Company Events of Default occurring prior to the Succession Notice. Without the requirement of obtaining any further consent from the GOAJK, upon the exercise by the Lenders or their designee of any of the remedies set forth in the Financing Documents, the Lenders may assign their rights and interests and the rights of the Company under this Agreement to any Transferee (hereinafter defined) so long as such Transferee shall assume in writing for the benefit of the GOAJK all of the obligations of the Company under this Agreement, provided that the Transferee shall not be liable for any outstanding obligations under this Agreement which were not disclosed by the GOAJK to the Lenders or the Agent in accordance with Section 6.2(b)(i). Upon such assignment and assumption, the Lenders and their designee shall be relieved of all obligations under this Agreement arising after such assignment and assumptions.

(d) Upon notice to the GOAJK of a default under the Financing Documents, the GOAJK shall, at the request of the Agent, (i) cooperate with the Lenders or their designees in the Lenders' or the designees exercise of such rights under this Agreement and the Financing Documents and (ii) enter into an agreement to perfect the transfer of such rights and obligations to a Transferee.

(e) As used herein, a "Transferee" shall be a person who (i) either is an experienced power plant operator or shall have agreed to engage the services of a person who is an experienced power plant operator, (ii) shall have paid all amounts, if any, then due and payable to the GOAJK under this Agreement, (iii) shall have expressly assumed in writing for the benefit of the GOAJK the obligations of the Company under this Agreement (including but not limited to) the obligation of the Company to maintain and operate the Complex in accordance with the requirements of the Power Purchase Agreement, and (iv) has not been objected to by the GOAJK (in a written notice delivered by the GOAJK to the Lenders not later than ten (10) Days after the Lenders have delivered notice identifying the Transferee to the GOAJK) on the basis that a majority of the capital of the Transferee is

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held or controlled by persons of a nationality that the GOAJK reasonably considers to be prejudicial to the national security of Pakistan and (v) is a corporate body established in Pakistan.

(f) At the request of the Company, delivered to the GOAJK not less than thirty (30) Days in advance, the GOAJK shall execute and deliver at the Financial Closing acknowledgements to the Lenders or their designees with respect to any security created as provided in this Article IV and the rights of such parties under this Agreement, as the Lenders may reasonably request in accordance with customary practices in transactions of this nature.

4.3 Notice to the Lenders of the Company's Default

(a) Anything in this Agreement notwithstanding, from and after the occurrence of the Financial Closing, the GOAJK shall not seek to terminate this Agreement as the result of any Company Event of Default without first giving a copy of any notices given to the Company notifying it of such default and/or its intention to terminate this Agreement to the Lenders, such notice to be coupled with a request to the Lenders to cure any such default within one hundred and twenty (120) Days (or such longer period as the GOAJK and the Company may mutually agree) (the "**Initial Cure Period**"), and such cure period shall commence upon delivery of each such notice to the Lenders.

(b) No rescission or termination of this Agreement by the GOAJK (whether pursuant to its rights or remedies under this Agreement or at law) shall be valid or binding upon the Lenders without such notice, the expiration of the Initial Cure Period, the expiration of the Evaluation Period (as defined below) and the expiration of the Extended Cure Period (as defined below) provided in this Section 4.3. The Lenders (or their designee) may make, but shall be under no obligation to make, any payment or perform or procure the performance of any act required to be made or performed by the Company, with the same effect as if made or performed by the Company. If the Lenders (or their designee) fail to cure, or procure the cure of or are unwilling to cure or procure the cure of, any Company Event of Default or (in the case of any Company Event of Default which is not reasonably susceptible to cure within the Initial Cure Period) mitigate such Company Event of Default within the Initial Cure Period, the GOAJK shall have all its rights and remedies with respect to such default as set forth in this Agreement; provided, however, that upon the expiration of the Initial Cure Period, the Lenders (or their designee) shall have a further period (the "**Evaluation Period**"), during which the Lenders (or their designee) may evaluate such Company Event of Default, the condition of the Complex, and other matters relevant to the actions to be taken by the Lenders (or their designee) concerning such Company Event of Default, and which Evaluation Period shall end on the sooner to occur of

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(i) the Agent's either directly or through a designee delivery to the GOAJK of a notice that the Lenders have elected to pursue their remedies under the Financing Documents and assume the rights and obligations of the Company as provided under Section 4.2 (an "**Election Notice**"), or (ii) sixty (60) Days following the end of the Initial Cure Period. Upon the delivery of the Election Notice, the Lenders (or their designee) shall be granted an additional period of five (5) months within which to cure, remedy, mitigate or procure the cure, remedy, or mitigation of any such Company Event of Default (the "**Extended Cure Period**") that is required to be cured pursuant to Section 4.2. If the Power Purchaser has assumed the operation of the Complex pursuant to Section 6.11 of the Power Purchase Agreement and the Complex is being operated by the Power Purchaser to its satisfaction, the GOAJK shall extend the Initial Cure Period, Evaluation Period and/or Extended Cure Period for an additional period of six (6) months. During the Initial Cure Period, the Evaluation Period and the Extended Cure Period and any extensions thereof, the GOAJK's right to terminate this Agreement in respect of any Company Event of Default shall be suspended so long as the Lenders (or their designee) are diligently attempting to cure or mitigate or procure the cure or mitigation of such Company Event of Default or are pursuing the enforcement of their rights and remedies under the Financing Documents against the Company. In the event that the Agent fails to deliver an Election Notice or the Lenders or their designee fail to cure any such Company Event of Default required to be cured pursuant to Section 4.2 on or before the expiration of the Extended Cure Period, as it may have been extended, the GOAJK may exercise any and all of its rights and remedies with respect to such default set forth in this Agreement including the right to immediately terminate this Agreement, and such termination shall be effective on delivery to the Agent of notice of such termination. During such Extended Cure Period, the Agent shall keep the GOAJK apprised of the Lenders' or their designee's efforts to cure such Company Event of Default. Notwithstanding any provisions of this Section 4.3 to the contrary, the Initial Cure Period, the Evaluation Period and the Extended Cure Period, as the case may be, shall be extended on a Day-for-Day basis for each Day during any such period (A) a breach by the GOAJK of this Agreement and/or Water Use Agreement, (B) a breach by the GOP of the GOP Implementation Agreement or the Guarantee, (C) a breach by the Power Purchaser of the Power Purchase Agreement, (D) a breach by the GOAJK and/or the Council of the AJ&K Implementation Agreement, (E) an AJ&K Force Majeure Event, (F) a Pakistan Force Majeure Event, or (G) non availability of water in a flow rate within the Technical Limits are in existence or in effect or subsist or a Consent has not been transferred to or issued in favour of the Lenders, their designee or any Transferee, or is not in full force or effect on or after the one hundred and eighteenth (180th) Day of such period and less than thirty (30) Days after the Lenders, the Agent, their designee or the Transferee have made due application therefor and otherwise complied with the obligations applicable to them under Section 5.2 of the AJ&K Implementation Agreement and such circumstance has

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not arisen due to (i) a failure by the Lenders, the Agent, their designee or the Transferee to comply with the obligations applicable to them under Section 5.3 of the AJ&K Implementation Agreement or (ii) the GOAJK or any Relevant Authority exercising any power in accordance with Section 14.4 of the AJ&K Implementation Agreement in relation to any such Consents following the issuance thereof in favour of the Lenders, the Agent, their designee or the Transferee.

ARTICLE V – TERMINATION

5.1 Termination:

The Parties have agreed that the termination of this Agreement and the AJ&K Implementation Agreement due to any Event of Default and/or material breach of the GOAJK or the Company, as the case may be, and the remedies provided therefor under the AJ&K Implementation Agreement, including, if applicable, the termination of the AJ&K Implementation Agreement by the Company or the GOAJK, under Article XVII of the AJ&K Implementation Agreement and the payment to the Company by the GOAJK or by the GOP under the Guarantee of the compensation provided under Article XVII of the AJ&K Implementation Agreement as a result thereof and, if applicable, the termination of the AJ&K Implementation Agreement, is the sole remedy of the Company, and the GOAJK in respect of such termination of the AJ&K Implementation Agreement and/or this Agreement. The provisions of this Section 5.1 shall be without prejudice to any right or remedy of the Company or the GOAJK, as the case may be, which arises prior to termination of this Agreement.

ARTICLE VI – RESOLUTION OF DISPUTES

6.1 Governing Law

This Agreement and the rights and obligations of the Parties hereunder shall be governed by and construed in accordance with the Laws of Pakistan.

6.2 Resolution of Disputes.

Any dispute between the Parties arising out of or in connection with this Agreement shall be resolved in accordance with Article XVIII of the AJ&K Implementation Agreement, which shall stand incorporated herein *mutatis mutandis*, save that references to the Council, the GOAJK and/or AJ&K Entities in the AJ&K Implementation Agreement shall be construed as references to the GOAJK.

ARTICLE VII – MISCELLANEOUS PROVISIONS

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7.1 Indemnification

(a) The GOAJK. The GOAJK shall jointly and severally defend and indemnify the Company and its directors, officers and employees against, and hold the Company and its directors, officers and employees harmless from, at all times after the date hereof, any and all Losses incurred, suffered, sustained, or required to be paid, directly or indirectly, by, or sought to be imposed upon, the Company and its directors, officers and employees for personal injury or death to persons or damage to property arising out of the negligent or intentional act or omission of the GOAJK, its ministers, officers and employees, in connection with this Agreement.

(b) The Company. The Company shall defend and indemnify the GOAJK and its ministers, officers and employees against and hold the GOAJK and its ministers, officers and employees harmless from, at all times after the date hereof, any and all Losses incurred, suffered, sustained, or required to be paid, directly or indirectly, by, or sought to be imposed upon the GOAJK and its ministers, officers and employees for personal injury or death to persons or damage to property arising out of the negligent or intentional act or omission of the Company, its directors, officers and employees in connection with this Agreement.

(c) Joint Negligence. In the event that any Loss results from the joint or concurrent negligent or intentional acts or omissions of the Parties, each Party shall be liable under this indemnification in proportion to its relative degree of fault.

(d) Survival. The provisions of this Section 7.1 shall survive for a period of five (5) years following the termination of this Agreement (or such later date as the Company vacates the Site where the Complex has been or is to be transferred to the Complex Transferee).

7.2 Variations in Writing

All additions, amendments and variations to this Agreement shall be binding only if in writing and signed by duly authorized representatives of the Parties.

7.3 Waivers

(a) No waiver by any Party of any default by the other in the performance of any of the provisions of this Agreement (i) shall operate or be construed as a waiver of any other or further default whether of a like or different character; or (ii) shall be effective unless in writing duly executed by an authorized representative of the Party.

(b) The failure by any Party to insist on any occasion upon the performance of the terms, conditions, and provisions of this Agreement, or time or other indulgence granted by one Party to the other, shall not thereby act as a waiver of the breach, as acceptance of any variation, or as the relinquishment of any such right hereunder, which shall remain in full force and effect.

7.4 Confidentiality

(a) Each of the Parties shall, and shall ensure that their contractors, subcontractors, consultants, and agents, and each of their respective permitted successors and assigns, hold in confidence all documents and other information whether technical or

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commercial, which is of a confidential nature supplied to it by or on behalf of the other Party relating to the Project and shall not (save as required by law or appropriate regulatory authorities or prospective lenders to, or investors in, the Company or the respective professional advisers of the Parties or of such lenders or investors as aforesaid) publish or otherwise disclose or use the same for its own purposes, otherwise than as may be required to perform its obligations under this Agreement. The provisions of this Section 7.4 shall survive the termination of this Agreement, but shall expire and be of no further effect upon the fifth (5th) anniversary of the date of termination of this Agreement.

(b) The provisions of Section 7.4(a) above shall not apply to (i) information in the public domain otherwise than by breach of this Agreement; (ii) information in the possession of the receiving Party thereof before divulgence that was not obtained under any obligation of confidentiality; and (iii) information obtained from a third party who the receiving Party believes, after reasonable inquiry, is free to divulge the same so long as the information was not obtained by the receiving Party under any obligation of confidentiality to the third party.

(c) Nothing herein shall preclude the use of provisions similar to those contained in this Agreement and the other agreements referred to herein in any agreements prepared and issued in connection with other projects.

7.5 Successors and Assigns

This Agreement shall inure to the benefit of, and be binding upon, the permitted successors and permitted assigns of the Parties.

7.6 No Third Party Beneficiaries

This Agreement shall not confer any right of suit or action whatsoever on any third party, except for the specific rights granted to the Lenders, its designees or the Agent hereunder.

7.7 Partial Invalidity

The illegality, invalidity or unenforceability of any provision of this Agreement in whole or in part under the law of any jurisdiction shall neither affect its (i) legality, validity or enforceability under the law of any other jurisdiction, nor (ii) the legality of any other provision or part thereof.

7.8 Due Execution

The Company represents and warrants to the GOAJK that (i) the Company has full power, authority and legal right to incur the obligations, to execute and deliver and to perform and observe the provisions of this Agreement, (ii) this Agreement has been duly authorized, executed and delivered by it, and (iii) this Agreement constitutes the legal, valid and binding obligation of the Company. The GOAJK represents and warrants to the Company that (i) it has full power, authority and legal right to incur the obligations and to perform and observe the terms and provisions contained herein (ii) this Agreement has been duly authorized, executed and delivered by it, and (iii) this Agreement constitutes the legal, valid and binding obligation of the GOAJK.

7.9 Language of Agreement

ANNEXURE - 1

The language for the purpose of administering and interpreting this Agreement, including any arbitration hereunder, shall be English.

7.10 Address for Notices

(a) All notices, communications, or other documents (together "Notices") to be given or made by one Party to the other Party pursuant to this Agreement shall be in writing, shall be addressed for the attention of the person indicated below, and shall either be delivered personally or sent by telegram, registered or certified mail, or facsimile. The addresses for service of the Parties and their respective facsimile numbers shall be:

(i) For GOAJK:

Attention: Senior Member AJK Board of Revenue

Address: [•]

Facsimile: [•]

(ii) For the Company: Star Hydro Power Limited

Attention: Chief Executive

Address: 112, Siddiq Trade Centre, Lahore, Pakistan

Facsimile: [*]

or such other addresses and facsimile numbers as either Party may have notified to the other Party in accordance with this Section 7.10 (a).

(b) Delivery

All Notices shall be deemed delivered (i) when presented personally, (ii) if received on a Business Day for the receiving Party, when transmitted by facsimile to the receiving Party's facsimile number specified above and, if received on a Day that is not a Business Day for the receiving Party, on the first Business Day following the date transmitted by facsimile to the receiving Party's facsimile number specified above, (iii) one (1) Day after being delivered to a courier for overnight delivery, addressed to the receiving Party, at the address indicated above (or such other address as such Party may have specified by Notice delivered to the delivering Party at its address or facsimile number specified above) or (iv) five (5) Days after being deposited in a regularly maintained receptacle for the postal service in Pakistan, postage prepaid, registered or certified, return receipt requested, or despatched through the courier service addressed to the receiving Party, at the address indicated above (or such other address as the receiving Party may have specified by written Notice delivered to the delivering Party at its address or facsimile number specified above). Any notice given by facsimile shall be confirmed in writing delivered personally or sent by registered or certified mail, but the failure to so confirm shall not void or invalidate the original notice if it is in fact received by the Party to which it is addressed.

(c) Notice to Lenders

Any notice required to be delivered to the Lenders shall be in writing and shall be

ANNEXURE - 1

deemed to have been delivered (i) when presented personally to the Lender or the Agent, (ii) when transmitted by facsimile to the number specified in accordance with the procedure set forth below, or despatched through international courier service at the address indicated at Financial Closing (or such other address or to the Agent at such address as the Lenders may have specified by written notice delivered in accordance herewith). If there is more than one Lender, the Lenders will designate in writing to the GOAJK an agent (the "Agent") and any notice required hereunder shall be delivered to such Agent, such notice to be effective upon delivery to the Agent as if delivered to each of the Lenders. Any notice given by facsimile under this Section 7.10(c) shall be confirmed in writing delivered personally or sent by prepaid post, but failure to so confirm shall not void or invalidate the original notice if it is in fact received by the Lender or the Agent. Notwithstanding the foregoing, if the address of the Lender or Agent is outside AJ&K, any notice delivered to the Lender or Agent pursuant to this Section 7.10(c) shall be sent by international courier or facsimile, and if sent by facsimile, confirmed by international courier. The initial address and facsimile number for Lender or Agent shall be provided to the GOAJK by the Company at Financial Closing and thereafter may be changed by the Lender or the Agent by subsequent delivery of a notice to the GOAJK at the address or facsimile number for the GOAJK provided in Section 7.10(a) (or at such other address or facsimile number subsequently delivered to the Lender or the Agent in accordance with this Section 7.10(c)) and otherwise in accordance with the requirements of Section 7.10(a).

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the date first above written.

STAR HYDRO POWER LIMITED

THE PRESIDENT OF AZAD JAMMU &
KASHMIR FOR AND ON BEHALF OF THE
AZAD GOVERNMENT OF THE STATE OF
JAMMU AND KASHMIR

By: _____

By: _____

Name:

Name:

Title:

Title:

Witnessed By:

Name:

Name:

Title:

Title:

SOCIO-ECONOMIC SURVEY PROFORMAS

PATRIND HYDROPOWER PROJECT

1. Site Name

 Elevation Co-ordinates
 2. Location
 3. River Name
 4. Population Upstream of Weir Site within 2 Km

 Village Names

 Populations
 5. Population Downstream of Weir Site within 2 Km

 Village Names

 Populations
 6. Groundwater/Surface Water Quality

 Depth

 Quality (Saline etc.)
 7. Climate

 Met Data from Nearest Met Station
 8. Water Use Downstream of Weir
 9. Biological Environment

 Flora
 - **Natural Vegetation**
 - **Forest Type/ Acreage**
 - **Endangered Species**
 - Agriculture**
 - **Crops**
 - **Vegetables**
 - **Fruits**
-
-

Fauna

- **Rare and Endangered Species**
- **Species which Require Management**
- **Species of Economic Significance**
- **Species of Special Interest to Local Population or Tourists**
- **Aquatic Fauna of Commercial/ Recreational Value and Migratory Fish Species Alongwith Their Spawning Ground.**
- **Migratory Route of Terrestrial, Aquatic as well as avi - Fauna**

Livestock

Fisheries

10. Economy

Employment Classes

Occupations

Income

11. Civic Amenities

Housing (Class, Pucca, Kutcha Houses)

Water Supply and Sanitation

Health (Hospitals, Clinics, Dispensaries)

Education (Schools).

12. Culture

Archaeological Sites

Mosques, Shrines

Education of Women

13. Assets Submergence by Weir Reservoir

Submergence of Total Land Area (Acres)

Private Land

State Owned Land

Agricultural Area (Cost/Acre):

- **Irrigated**
- **Rainfed**
- **Wasteland**

Residential Area (Cost/Acre)

Name of Villages

No. of Villages

No. of Houses (Cost/House)

Population (No. of People Displaced and Needing Resettlement)

No. of Trees

14. Archaeological Sites

Shrines

Mosques

15. Infrastructure

Existing (Nearest Major Road)

Required (For project construction, including equipment transportation)

16. Using PRA, Interviews of Locals

SOCIO-ECONOMIC SURVEY PROFORMAS
(URDU VERSION)

معلومات برائے پٹرینڈ ہائیڈرو پاور پراجیکٹ

محل وقوع کاتین

جگہ کا نام

1	سطح سمندر سے اونچائی
2	مقام کاتین
3	دریا کا نام
4	بند کے اوپر 2 کلومیٹر تک لوگوں کی تعداد
-	گاؤں کے نام
-	گاؤں کی آبادی
5	بند کے نیچے 2 کلومیٹر تک لوگوں کی تعداد
-	گاؤں کے نام
-	گاؤں کی آبادی
6	زیر زمین و سطح زمین پر پانی کی کیفیت
-	سطح زمین سے پانی کی گہرائی
-	خصوصیات (مکین و غیرہ)
7	موسمی حالات
-	قریبی دفتر موسمیات کی معلومات
8	بند سے نیچے پانی کا استعمال
9	حیاتیاتی ماحول
-	نباتات
-	قدرتی نباتات
-	درختوں کی اقسام/ پھیلاؤ (ایکڑوں میں)
-	خطرے سے دوچار انواع (اقسام)

9.1	زراعت
-	فصلات
-	سبزیات
-	پھل
9.2	حیوانات
-	کم یاب اور خطرے سے دوچار انواع (اقسام)
-	انواع جنکے لئے بندوبست درکار ہے
-	انواع جنکی معاشی اہمیت ہو
-	انواع جن میں مقامی لوگوں اور سیاحوں کی دلچسپی ہو
9.3	معاشی اور تفریحی اہمیت کے آبی جانور اور نقل مکانی کرنے والی مچھلیوں کی اقسام مع انکے تخم ریزی کی جگہیں
9.4	ارضی و آبی جانوروں اور پرندوں کے نقل مکانی کے راستے
10	پالتو جانور
11	مچھلیاں
12	معاشیات
-	ملازمین کی درجہ بندی
-	پیشے
-	آمدن
13	مدنی (شہری) سہولتیں
-	تعمیرات (کچے - کچے)
-	پانی اور صحت و صفائی کا انتظام
14	تعلیم (سکول)
15	ثقافت
-	آثار قدیمہ

-	مساجد
-	در بار
-	قبرستان
-	تعلیم نسوان
16	بند کی وجہ سے غرقاب اٹاٹے
-	کل رقبہ جو زیر آب آئے گا (ایکڑوں میں)
-	ذاتی زمین
-	سرکاری زمین
17	زرعی اراضی (قیمت کا تخمینہ فی ایکٹر)
-	نہری
-	بارانی
-	بنجر زمین
18	رہائشی رقبہ (قیمت کا تخمینہ)
-	گاؤں کے نام
-	کل گھر (قیمت)
19	کل افراد (جو کہ بے گھر ہونگے یا جنکو تھفیر کی ضرورت ہوگی)
20	کل درخت (قیمت کا تخمینہ)
21	بنیادی ڈھانچے
-	قریبی سڑک جو کہ پروجیکٹ کے سامان کی نقل و حمل کر سکے
22	لوگوں کے ساتھ گفت و شنید
-	پروجیکٹ کے بارے میں اسکے تحفظات

پٹرینڈ بجلی گھر پراجیکٹ
سوالنامہ برائے معاشرتی و معاشی کوائف

1. علاقہ بند/بجلی گھر _____
2. گاؤں کا نام _____
3. جواب دینے والا _____
4. پیشہ _____
5. ذرائع آبپاشی _____
6. پینے کے پانی کے ذرائع _____
7. ذاتی جائیداد _____
8. مدنی سہولیات _____
9. کب سے مقیم ہیں _____
10. گھر سے کتنے فاصلے پر ہے _____
11. گھر کی تفصیلات _____
12. کیا آپ کو پٹرینڈ پراجیکٹ کے بارے میں علم ہے _____

نہیں

☐

ہاں

☐

13. اس پراجیکٹ کے کیا فوائد ہیں

- نوکریاں
- بجلی پیدا کرنا
- علاقے میں ترقی ہونا
- فیکٹریاں وغیرہ لگنا
- یا کوئی اور

14. اس پراجیکٹ کے کیا نقصانات ہیں
- کوئی نہیں
- زمین زیر آب آ جائے گی
- زراعت تباہ ہو جائے گی
15. اگر آپ کو اپنی جگہ چھوڑنی پڑے تو آپ کیا کریں گے
16. اگر آپ کی زمین خرید لی جائے تو آپ کیا کوئی نیا پیشہ اختیار کریں گے
17. آپ زمین کے عوض کیا چاہتے ہیں
18. اگر پراجیکٹ میں نوکری مل جائے تو کیا آپ کام کریں گے
19. کوئی تجویز دینا چاہیں
20.

آپ کی زمین کتنی ہے	پراجیکٹ شروع ہونے سے پہلے	پراجیکٹ ختم ہونے کے بعد میں
-	زری	
-	ٹوب وبل	
-	دریائی	
-	بارانی	

21. آپ کا کیا خیال ہے آپ کو فائدہ ہے یا نقصان؟
فائدہ ہے تو کتنے کا _____ نقصان ہے تو کتنے کا _____
وجہ بتائیں _____

22. پراجیکٹ مکمل ہونے کے بعد زمین کی قیمت
مختلف قسم کی زمین کی قیمت
روپوں میں
رہائشی
تجارتی
نہری
دریائی
بارانی

		23. مال مویشی بھینسیں بکری/بھیٹر مرغیاں اور کوئی
		24. فصلوں کا ہیر پھیر فصل
بعد میں (ایکڑوں میں)	فی الحال (ایکڑوں میں)	مکئی گندم کوئی اور

**PARTICIPANTS OF PUBLIC
HEARING – MUZAFFARABAD**



ENVIRONMENTAL PROTECTION AGENCY

Government of Azad Jammu & Kashmir

PUBLIC HEARING

PATRIND HYDROPOWER PROJECT

August 5, 2010

ATTENDANCE SHEET

S. No	Name	Department	Designation	Contact No	Signature
1	Muhammad Saleem	PPC	Dir. Projed	03558103055	ma
2	Zahoor Ahmed	HEB	Dir. O&M		
3	Eng. Farooq Haidy	HEB	Project. Dir.	03005316029	
4	ABDUL SAMI KHAN	P&ID	Secy.	0302-8504782	
5	M Bashir Khan	ADKEPA	Director	0345-940663	
6	M. Mushtaq	MCM	Dy. Director	03009568419	
7	Dr. Khalid Mahmood	EEAP	Env. Splt.	0300-5553587	Khalid
8	Abdul Qayyum Ch.	P&ID	P.D. GSKP	0333-5520610	
9	Sheeba Habib	EPA	Enteance	-	
10	Sumaira Ilyas	EPA	A.D	05882-921223	
11	Sekrish Munsif Khan	EPA	Asst. Director	05822-921223	
12	Prof. Siddique Ali	A.J. Khan	Sta. Professor	0322-6192077	
13	Imran Masood Abbas	EPA-EPR	ISS	0301-5076171	
14	M. Naeem Akter	PES	Sr. Env.	042-300495769	
15	Dr. Mohammad Nawaz Tarif	PES	Chief Env. Eng.	042-35726816	
16	Dr. Park, No-Hyuk	STAR Hydro	General. Mng.	090-0849-4112	Park N.H.
17	Ahmed Mafeez Sadiq	STAR Hydro	Manager	0300-4074516	
18	Ahiz Ali Shah	STAR Hydro	Manager	0301-8492651	
19	Mohammad. Shafiq	AJK-EPA	AD (EIA/M)	0321-9809567	
20	Ad Ali Shah	GMT-STAR Hydro		0300-5201743	
21	ARSHAD TGBAC	EPA	AD	0300-5109601	
22					
23					

ENVIRONMENTAL PROTECTION AGENCY

Government of Azad Jammu & Kashmir

PUBLIC HEARING

PATRIND HYDROPOWER PROJECT

August 5, 2010

ATTENDANCE SHEET

S. No	Name	Village	Contact No	Signature
1	MUHAMMAD ASLAM	ALRA	05822-448170	M. Aslam
2	M. ASLAM	"	03015620144	
3	SARFARAZ	"	432225	
4	MUHAMMAD Abbas	"	0301-5722910	
5	Muhammad Rehan Ali	"	03555100678	
6	محمد رفیق	تھریڈ پ	03345525791	
7	Mohd. ASHRAF	Terchide P	03345702312	
8	M. Jaleel	"	0334 8960968	
9		"	0334 8895213	
10	Saeed Ahmad	"	0334 8960584	Saeed Ahmad
11	QADEER		0322553857	QADEER
12	M. Saleem	تھریڈ پ	0334 8619848	M. Saleem
13	سعید الزمان	"	0334 9531608	
14		پتھر پتھر	0334 9305664	
15	خیر زمانہ	پتھر پتھر		
16	شاہان	پتھر پتھر	03319285620	
17	ملاحان	پتھر پتھر		
18	راشد قریب	پتھر پتھر	03345702063	
19	میاں قریب	پتھر پتھر	03345964242	
20	سید صدیق حسین	پتھر پتھر	033459640714	
21	پاؤنٹ	پتھر پتھر		
22	سید گلزار حسین	پتھر پتھر	033459640714	
23	پاؤنٹ	پتھر پتھر		







24	حاجی برفندیش	نظری	0305853079	Handwritten signature
25	دانشال اقبال	بهر ندر	03345606478	Handwritten signature
26	فرید احمد	بهر ندر	03325405195	Handwritten signature
27	احمد عباسی	بهر ندر	03229402983	Handwritten signature
28	محمد اشرف قریشی	بهر ندر		
29	محمد حنیف قریشی	بهر ندر	03348353024	Handwritten signature
30	محمد سجاد قریشی	بهر ندر	03345721906	Saltap
31	میر حامد قریشی	بهر ندر	0325-944408	Handwritten signature
32	رضوان قریشی	بهر ندر	03349674835	Handwritten signature
33	تامر علی محمد طائی	آلری	0321-4055374	Handwritten signature
34	محمد شہر عباسی	آلری	03445362145	Handwritten signature
35	محمد نسیم عباسی	آلری	031-8184505	Handwritten signature
36	محمد اقبال	آلری	03445939324	Handwritten signature
37	محمد نسیم	آلری	08981761-7	Handwritten signature
38	محمد نسیم	آلری	03848363163	Handwritten signature
39	سید سعید احمد	آلری	03433413291	Handwritten signature
40		آلری	0322553489	Handwritten signature
41	عبد الحسین قریشی	آلری	0301-5622963	Handwritten signature
42	احسن قریشی	آلری	0345-9636896	Handwritten signature
43	مشید احمد قریشی	آلری	0334-570473	Handwritten signature
44	نواب خان	آلری	0308-8798533	Handwritten signature
45	محمد نسیم	آلری	0312-4745673	Handwritten signature
46	محمد نسیم	آلری	0302-5418883	Handwritten signature
47	محمد نسیم	آلری	0331-8186368	Handwritten signature
48	محمد نسیم	آلری	0334-8480891	Handwritten signature
49	علامہ مولوی محمد نسیم	آلری	0334-8384677	Handwritten signature
50	محمد نسیم	آلری	nil	Handwritten signature
51	محمد نسیم	آلری	0372990800	Handwritten signature
52	JAMIL	آلری	03088866858	Handwritten signature
53	افتخار احمد الموان	آلری	08225-47549	Handwritten signature
54	محمد نسیم	آلری	0301-5688940	Handwritten signature

55	شیرعلی میر	میرعلی	0306-4462328	شیرعلی
56	میرعلی میر	میرعلی		میرعلی
57	آفتاب احمد	میرعلی	0301-5895515	میرعلی
58	احمد میرعلی	میرعلی	0343-8985615	میرعلی
59	عبدالحکیم	میرعلی	0331-8181077	میرعلی
60	عبدالحکیم	میرعلی		عبدالحکیم
61	افضل میرعلی	میرعلی	03128357657	افضل میرعلی
62	حیدر علی	میرعلی	0334-9556375	حیدر علی
63	محمد علی	میرعلی		محمد علی
64	محمد علی	میرعلی		محمد علی
65	محمد علی	میرعلی	0301-5981222	محمد علی
66	محمد علی	میرعلی		محمد علی
67	محمد علی	میرعلی		محمد علی
68	محمد علی	میرعلی	0345-5372847	محمد علی
69	محمد علی	میرعلی	0334-5723589	محمد علی
70	محمد علی	میرعلی	0307-4154354	محمد علی
71	محمد علی	میرعلی	0942235555	محمد علی
72	محمد علی	میرعلی	0323-1430848	محمد علی
73	محمد علی	میرعلی	03129983194	محمد علی
74	محمد علی	میرعلی	0312-944481	محمد علی
75	محمد علی	میرعلی	0334-574451	محمد علی
76	محمد علی	میرعلی		محمد علی
77	محمد علی	میرعلی	03438952722	محمد علی
78	محمد علی	میرعلی		محمد علی
79	محمد علی	میرعلی		محمد علی
80	محمد علی	میرعلی		محمد علی
81	محمد علی	میرعلی		محمد علی
82	محمد علی	میرعلی		محمد علی
83	محمد علی	میرعلی	03348271955	محمد علی
84	محمد علی	میرعلی	03325520418	محمد علی
85	محمد علی	میرعلی	03365653793	محمد علی

86	نام محمد	نرخه	0344-5954072	4665
87	محمد (الزرق)	مستور	8220303840323	44
88	محمد	دفعه	0344-5954072	0343-566935
89	محمد	آل	0343-5954072	0308-8798533
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**2006 & 2010
PHOTOGRAPHS OF PROJECT AREA,
FIELD VISITS
AND
SCOPING SESSIONS**

	
<p>Downstream Flow of Kunhar River Showing Deeper Bed and high Banks - 2010</p>	<p>An Other Downstream view of Kunhar River showing Deeper bed and high Banks - 2010</p>
	
<p>Downstream Flow of Kunhar River near Boi Village Showing Deeper Bed and high Banks of the River - 2010</p>	<p>Downstream View of Kunhar River Showing Deeper bed and high banks - 2010</p>
	
<p>A Stream Joins Kunhar River about 2km Downstream of Weir Site - 2010</p>	<p>Piryali Nullah Enters Kunhar River about 1.5 km Downstream of Weir Site - 2010</p>

	
<p>Boi da Katha Nullah Joins Kunhar River about 4km Downstream of Weir Site - 2010</p>	<p>Another view of Site for Construction Camp in Village Tarcheela at Weir Site – 2010</p>
	
<p>A katcha Track where Maintenance Road is to be Constructed - 2010</p>	<p>House to be Affected due to Diversion Tunnel at Weir Site -2010</p>
	
<p>Local Consultation at Weir Site - 2010</p>	<p>A Meeting with Locals of the Boi Village Downstream of Weir Site - 2010</p>



Sociologist is Collecting Social Data in a Meeting with Locals of Village Patrind - 2010



Environmental Team is in Consultation with the Owners of Storage Camp at Weir Site in Patrind Village - 2010



A Process of Consultation in Tarcheela Village - 2010



Local Consultation in Deedal Meera Village – 2010



A Meeting with Locals in Alora Village at Powerhouse Site - 2010



Scoping Session in Deedal Meera Village – 2010



SHPL and EPC team in consultation with Locals of Tarcheela Village AJK - 2010



SHPL and EPC team in consultation with Locals of Tarcheela Village AJK - 2010



SHPL and EPC and PES environmental team in consultation with Locals of Tarcheela Village AJK - 2010



SHPL and EPC team in consultation with Locals of Tarcheela Village AJK - 2010













SHPL and EPC team in consultation with Locals of Tarcheela Village AJK - 2010









SHPL and EPC team in consultation with Locals of Tarcheela Village AJK - 2010

PHOTOGRAPHS OF PUBLIC HEARING FOR EIA APPROVAL AT MUZAFFARABAD

	
<p>A view of Public Hearing Meeting</p>	<p>CEO SHPL is addressing the Participants</p>
	
<p>Participants of Public Hearing Meeting</p>	<p>Participants of Public Hearing Meeting</p>
	
<p>Participants of Public Hearing Meeting</p>	<p>Participants of Public Hearing Meeting</p>

	
<p>Participants of Public Hearing Meeting</p>	<p>Local People are Questioning</p>
	
<p>CEO SHPL and Deputy Director EPA are responding the issues raised by the Participants</p>	<p>PES team clarifying their views</p>
	
<p>A Participant is conveying his views</p>	<p>People are raising issues</p>

	
<p>View of Public Hearing Presentation by CEO and Coordinator SHPL</p>	<p>Local People are sharing their views</p>
	
<p>A Person is Questioning</p>	<p>Participants of Public Hearing Meeting</p>
	
<p>CEO is addressing Public Hearing Meeting</p>	<p>Discussion regarding Public Hearing Meeting</p>

PHOTOGRAPHS OF STAKEHOLDERS MEETING OF CDM AT MUZAFFARABAD



Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010



Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010



Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010



Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010









Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010



Stakeholders meeting for CDM at Muzaffarabad AJK September- 2010

PHOTOGRAPHS OF STAKEHOLDERS MEETING OF CDM AT BARBIAN KPK

	
<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>	<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>
	
<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>	<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>
	
<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>	<p>Stakeholders meeting for CDM at Barbian KPK September- 2010</p>

ANNEX-6

CADASTRAL SURVEY RESULTS

1. Census for the Affectees of Houses (ALDA Village)

1. Census for the Affecteds of Houses (ALDA Village)								
Sr. No	Name of Owner	No. of Houses	Possession/ Ownership of Affected Land	No. of Occupants	Gender		Status of Income of Adults	
					Male	Female	Long term Employment	Short term Employment
Power House AJK								
1	All specific names deleted for privacy reasons	1	Farm Land/ Waste Land/ River Bed	30	17	13	1	8
2		1	-	12	6	6	-	2
3		1	Farm Land/ Waste Land	3	1	2	1	-
4		1	Farm Land	7	3	4	1	2
5		1	Farm Land/ Waste Land	11	8	3	-	6
6		1	-	17	6	11	-	2
7		1	-	15	6	9	1	-
8		1	-	7	4	3	-	1
9		1	Farm Land/ Waste Land	9	5	4	1	-
10		1	-	6	2	4	-	1
11		1	River Bed	15	9	6	1	5
12		1	Farm Land	18	10	8	8	2
13		1	Farm Land	8	3	5	1	1
Head pond at Weir Site AJK								
14		1	-	1	1	-	-	1
15		1	-	6	5	1	1	-
16		1	-	3	1	2	-	1
17		1	-	7	4	3	-	2
18		1	-	5	4	1	1	2
19		1	-	5	2	3	-	1
Head pond at Weir Site KPK								
20		1	-	8	5	3	4	-
21		1	-	8	3	5	1	-
22		1	-	8	4	4	1	1
23		1	-	7	5	2	1	2
24		1	-	11	5	6		3
25		1	-	9	5	4	2	-
Diversion Tunnel at Weir Site								
26		1	-	17	8	9	2	3
	Total			253	132	121	28	46

- **Note:**
 The status of income of adults has been divided into Long term and Short term Employment.
 1. Long term employment refers to the permanent employment with government departments, private firm and/or business where income is derived from steady cash stream.
 2. Short term employment refers to the work obtained on daily wages.

2. Census for the Affectees of Weir and Powerhouse Area

2. Census for the Affected of Well and Powerhouse Area									
S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
Power House & Access Road (ALDA Village) AJK									
1		0	10	Farm Land	5	3	2	0	2
2		0	2	Farm land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
3		4	2	Farm Land/ House Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
4		0	10	Farm Land	7	3	4	1	2
5		2	8	Farm Land/ Waste Land	35	18	17	2	8
6		1	0	Farm Land/ Waste Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
7		1	8	Farm Land/ Waste Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
8		0	14	Farm Land/ Waste Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
9		0	11	Farm Land/ Waste Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
10		0	9	Farm Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
11		1	8	Farm Land/ Waste Land/ House Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
12		0	4	Farm land	3	2	1	1	1
13		0	3	Farm land	10	4	6	1	1
14		1	11	Farm Land/ House Land	30	17	13	1	8
15		0	10	Farm Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
16		2	9	Farm Land/ River Bed	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
17		1	4	Farm Land/ Waste Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
18		0	17	Farm Land/ Waste Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
19		3	0	Farm Land/ Waste Land	11	8	3	0	6
20		1	12	Farm Land/ Waste Land	6	2	4	0	1
21		0	10	Farm Land	8	2	6	0	1
22		2	7	Farm Land/ Waste Land	8	4	4	1	1
23		0	16	Farm Land/ Waste Land	3	2	1	0	1
24		0	4	House Land	Same as No. 4	Same as No. 4	Same as No. 4	Same as No. 4	Same as No. 4
25		0	5	House Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
26		0	4	House Land	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12
27		0	3	House Land	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12
28		0	3	House Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
29		0	4	House Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
30		0	12	House Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
31		0	5	House Land	Same as No. 20	Same as No. 20	Same as No. 20	Same as No. 20	Same as No. 20
32		0	5	Waste Land	4	3	1	0	2
33		0	10	Waste Land	7	3	4	0	1
34		0	5	Waste Land	7	3	4	1	0
35		1	10	Waste Land	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5	Same as No. 5
36		0	3	Waste Land	7	4	3	1	1
37		1	8	Waste Land	Same as No. 36	Same as No. 36	Same as No. 36	Same as No. 36	Same as No. 36
38		2	2	Waste Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14
39		11	4	Waste Land	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24
40		2	14	Waste Land/ River Bed	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24
41		4	1	Waste Land/ River Bed	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24	Same as No. 24
42		8	17	Waste Land	Same as No.14	Same as No.14	Same as No.14	Same as No.14	Same as No.14

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
43		0	3	Waste Land	0	0	0	0	0
44		0	5	Waste Land	0	0	0	0	0
45		0	9	Waste Land	0	0	0	0	0
46		15	16	Waste Land	0	0	0	0	0
47		0	10	River Bed	5	2	3	0	1
48		0	10	River Bed	7	5	2	1	1
49		0	19	River Bed	0	0	0	0	0
50		0	9	River Bed	0	0	0	0	0
51		0	10	River Bed	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12	Same as No. 12
52		1	8	River Bed	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13
53		1	13	River Bed	18	8	10	1	1
54		0	11	River Bed	5	2	3	1	0
55		3	15	River Bed	10	4	6	2	1
	Total	90	2		196	99	97	14	40
56		75	0		0	0	0	0	0
	Total	75	0		0	0	0	0	0
Colony of Expatriate construction staff, Switchyard, labour camp, access road, bridge, batching plant (Lower Chatter) AJK									
1		25	1	River Bed	0	0	0	0	0
2		2	16	Waste Land	0	0	0	0	0
3		2	16	Waste Land	0	0	0	0	0
4		18	14	River Bed	0	0	0	0	0
5		0	11	Waste Land	0	0	0	0	0
6		2	12	River Bed	0	0	0	0	0
7		0	7	Waste Land	0	0	0	0	0

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
8		20	3	Waste Land	0	0	0	0	0
9		12	14	Waste Land	0	0	0	0	0
	Total	85	14		0	0	0	0	0

Weir Site Construction Area & Sandtrap (Patrind) AJK

1		10	11	Waste Land	20	11	9	0	9
2		38	1	Waste Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
3		7	19	River Bed	0	0	0	0	0
4		7	15	Waste Land	0	0	0	0	0
	Total	64	6		20	11	9	0	9

Access Road (Patrind/Tarcheela) AJK

1		0	12	Farm Land	7	3	4	0	2
2		1	2	Farm Land	5	4	1	0	2
3		0	13	Farm Land	10	6	4	0	6
4		0	16	Farm Land	3	2	1	0	2
5		0	11	Farm Land	5	3	2	0	1
6		0	10	Farm Land	16	8	8	0	7
7		0	12	Farm Land	9	5	4	0	3
8		0	11	Farm Land	5	2	3	0	3
9		0	3	Farm Land	3	2	1	0	1
10		2	7	Farm Land	Same as No. 9	Same as No. 9	Same as No. 9	Same as No. 9	Same as No. 9
11		1	13	Farm Land	7	3	4	0	3
12		0	1	Farm Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
13		0	19	Farm Land	4	1	3	0	1
14		0	7	Farm Land	Same as No. 9	Same as No. 9	Same as No. 9	Same as No. 9	Same as No. 9

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
15		0	10	Farm Land	5	3	2	0	2
16		1	17	Farm Land	8	6	2	0	4
17		0	18.5	Farm Land/ Waste Land	8	5	3	0	4
18		0	1	House Land	5	2	3	0	1
19		4	4	Waste Land	7	3	4	0	4
20		0	17	Waste Land	6	3	3	1	1
21		2	13	Waste Land	12	5	7	0	5
22		1	6	Waste Land	3	1	2	0	1
23		0	19	Waste Land	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13
24		0	10	Waste Land	2	1	1	0	1
25		1	13	Waste Land	5	3	2	1	2
26		1	12	Waste Land	10	7	3	0	5
27		0	15	Waste Land	6	1	5	1	1
28		1	17	Waste Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
29		0	7	Waste Land	5	2	3	0	2
30		1	9	Waste Land	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29
31		0	3	Waste Land	9	3	6	0	2
32		2	12	River Bed	0	0	0	0	0
33		2	6	River Bed	0	0	0	0	0
	Total	37	6.6		165	84	81	3	66
Construction Camp (Patrind/Tarcheela) AJK									
1		0	4	Farm Land	7	3	4	0	2
2		0	5	Farm Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
3		3	2	Farm Land/ Waste Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
4		0	7	Farm Land/ Waste Land	8	2	6	0	1
5		0	8	Farm Land/ Waste Land	Same as No. 4	Same as No. 4	Same as No. 4	Same as No. 4	Same as No. 4
6		0	14	Farm Land/ Waste Land	2	1	1	0	1
7		0	2	Farm Land	6	3	3	0	1
8		0	4	Farm Land	5	2	3	0	2
9		0	4	Farm Land	2	1	1	0	2
10		0	7	Farm Land	4	2	2	0	1
11		0	11	Farm Land/ Waste Land	14	8	6	0	5
12		0	8	Farm Land/ Waste Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
13		0	14	Farm Land/ Waste Land	Same as No. 10	Same as No. 10	Same as No. 10	Same as No. 10	Same as No. 10
14		0	6	Farm Land/ Waste Land	17	8	9	1	4
15		1	17	Farm Land/ Waste Land	7	2	5	0	2
16		0	5	Farm Land	15	8	7	0	8
17		1	12	Farm Land/ Waste Land	20	11	9	0	9

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
18		1	17	Farm Land/ Waste Land	11	5	6	0	2
19		0	3	Farm Land	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14
20		0	2	Farm Land	10	4	6	0	2
21		0	8	Farm Land/ Waste Land	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14
22		0	7	Farm Land/ Waste Land	9	5	4	0	1
23		0	6	Farm Land/ Waste Land	8	5	3	0	2
24		0	6	Farm Land/ Waste Land	5	3	2	0	1
25		0	8	Farm Land/ Waste Land	12	5	7	0	2
26		0	7	Farm Land/ Waste Land	7	4	3	0	1
27		0	4	Farm Land	6	3	3	0	2
28		0	5	Farm Land	8	3	5	0	1
29		0	4	Farm Land	6	4	2	0	1
30		0	4	Farm Land	9	4	5	0	1
31		0	10	Farm Land/ Waste Land	15	7	8	1	4
32		1	1	Farm Land/ Waste Land	Same as No. 22	Same as No. 22	Same as No. 22	Same as No. 22	Same as No. 22
33		0	8	Farm Land	12	7	5	0	2

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
34		0	12	Farm Land/ Waste Land	11	5	6	0	2
35		0	5	Farm Land/ Waste Land	9	4	5	0	2
36		0	9	Waste Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
37		1	3	Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
38		1	1	Waste Land	0	0	0	0	0
39		7	4	River Bed	0	0	0	0	0
40		6	0	River Bed	20	8	12	0	5
Total		35	4		265	127	138	2	69

Reservoir Impounding (AJK)

1		1	14	Farm Land/ Waste Land	6	3	3	0	2
2		1	15	Farm Land/ Waste Land	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1	Same as No. 1
3		1	17	Farm Land/ Waste Land	2	1	1	0	1
5		1	2	Farm Land/ Waste Land	9	2	7	0	2
6		2	1	Farm Land/ Waste Land	11	5	6	0	4
7		2	10	Farm Land/ Waste Land	8	4	4	0	3
8		13	19	Farm Land/ Waste Land	17	7	10	0	7

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
9		2	4	Farm Land/ Waste Land	7	3	4	0	1
10		9	5	Farm Land/ Waste Land	2	1	1	1	0
11		0	12	Farm Land	12	4	8	1	2
12		0	12	Farm Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
13		1	18	Farm Land/ Waste Land	7	4	3	1	2
14		12	1	Farm Land/ Waste Land	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13	Same as No. 13
15		9	1	Farm Land/ Waste Land	2	1	1	0	1
16		10	9	Farm Land/ Waste Land	11	6	5	3	0
17		1	18	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
18		1	2	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
19		1	19	Farm Land/ Waste Land	2	1	1	0	1
20		7	12	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
21		2	14	Farm Land/ Waste Land	7	2	5	1	0

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
22		1	8	Farm Land/ Waste Land	Same as No. 19	Same as No. 19	Same as No. 19	Same as No. 19	Same as No. 19
23		3	4	Farm Land/ Waste Land	6	3	3	0	3
24		5	4	Farm Land/ Waste Land	Same as No. 23	Same as No. 23	Same as No. 23	Same as No. 23	Same as No. 23
25		3	3	Farm Land/ Waste Land	6	4	2	0	4
26		5	1	Farm Land/ Waste Land	4	3	1	0	3
27		1	16	Farm Land/ Waste Land	8	4	4	1	3
28		2	3	Farm Land/ Waste Land	8	3	5	0	1
29		2	14	Farm Land/ Waste Land	5	4	1	0	3
30		4	1	Farm Land/ Waste Land	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27
31		1	6	Farm Land/ Waste Land	6	2	4	0	2
32		1	0	Farm Land	5	3	2	0	2
33		0	17	Farm Land	8	5	3	0	2
34		0	3	Farm Land	3	1	2	0	1

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
35		2	2	Farm Land/ Waste Land	8	4	4	0	2
36		8	3	Farm Land/ Waste Land	30	14	16	0	8
37		0	4	Farm Land	5	1	4	0	1
38		2	0	Farm Land/ Waste Land	4	1	3	0	1
39		0	10	Farm Land	Same as No. 38	Same as No. 38	Same as No. 38	Same as No. 38	Same as No. 38
40		0	10	Farm Land	Same as No. 38	Same as No. 38	Same as No. 38	Same as No. 38	Same as No. 38
41		6	9	Farm Land/ Waste Land	45	23	22	0	15
42		2	8	Farm Land/ Waste Land	7	3	4	0	1
43		0	15	Farm Land/ Waste Land	5	2	3	0	2
44		1	3	Farm Land	7	3	4	0	2
45		1	9	Farm Land/ Waste Land	9	4	5	0	3
46		0	10	Farm Land	7	3	4	0	2
47		2	10	Farm Land/ Waste Land	6	2	4	0	1

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
48			10	Farm Land	8	5	3	0	3
49		1	5	Farm Land/ Waste Land	11	6	5	0	4
50		3	13	Farm Land/ Waste Land	Same as No. 19	Same as No. 19	Same as No. 19	Same as No. 19	Same as No. 19
51		0	18	Farm Land/ Waste Land	13	6	7	0	4
52		2	0	Farm Land/ Waste Land	Same as No. 51	Same as No. 51	Same as No. 51	Same as No. 51	Same as No. 51
53		1	4	Farm Land/ Waste Land	Same as No. 48	Same as No. 48	Same as No. 48	Same as No. 48	Same as No. 48
54		4	14	Farm Land/ Waste Land	Same as No. 53	Same as No. 53	Same as No. 53	Same as No. 53	Same as No. 53
55		2	0	Farm Land/ Waste Land	Same as No. 53	Same as No. 53	Same as No. 53	Same as No. 53	Same as No. 53
56		7	15	Waste Land	0	0	0	0	0
57		2	2	Waste Land	0	0	0	0	0
58		1	13	Farm Land/ Waste Land	13	6	7	0	3
59		1	12	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
60		10	18	Farm Land/	0	0	0	0	0

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
				Waste Land					
61		7	0	Farm Land/ Waste Land	31	15	16	0	7
62		4	2	Farm Land/ Waste Land	26	12	14	0	8
63		0	17	Farm Land	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62
64		1	0	Farm Land/ Waste Land	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62
65		11	19	Farm Land/ Waste Land/ House Land	9	4	5	0	3
66		2	3	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
67		2	16	Farm Land/ Waste Land	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8	Same as No. 8
68		3	18	Farm Land/ Waste Land	Same as No. 65	Same as No. 65	Same as No. 65	Same as No. 65	Same as No. 65
69		1	14	Farm Land/ Waste Land	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
70		16	3	Farm Land/ Waste Land	20	10	10	1	5
71		0	14	Farm Land	9	2	7	0	2
72		2	11	Farm Land/ Waste Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71
73		7	0	Farm Land/ Waste Land	5	4	1	0	2
74		3	1	Farm Land/ Waste Land	2	1	1	0	1
75		2	9	Farm Land/ Waste Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71
76			10	Farm Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71
77		3	15	Farm Land	5	2	3	0	2
78			5	Farm Land	8	4	4	0	2
79		0	5	Farm Land	Same as No. 78	Same as No. 78	Same as No. 78	Same as No. 78	Same as No. 78
80		2	13	Farm Land/ Waste Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
81		2	15	Farm Land/ Waste Land	7	6	1	1	2

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
82		4	19	Farm Land/ Waste Land	8	4	4	0	4
83		1	9	Farm Land/ Waste Land	5	3	2	0	2
84		2	0	Farm Land/ Waste Land	7	4	3	0	2
85		1	1	Farm Land/ Waste Land	Same as No. 84	Same as No. 84	Same as No. 84	Same as No. 84	Same as No. 84
86		1	2	Farm Land/ Waste Land	10	3	7	0	3
87		1	4	Farm Land/ Waste Land	Same as No. 87	Same as No. 87	Same as No. 87	Same as No. 87	Same as No. 87
88		0	10	Farm Land	4	2	2	0	1
89		6	12	Farm Land/ Waste Land	31	16	15	1	9
90		0	15	Farm Land	21	10	11	2	4
91		3	9	Farm Land/ Waste Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
92		6	19	Farm Land/ Waste Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71
93		0	15	Farm Land	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71	Same as No. 71
94		0	12	Farm Land/ Waste Land	Same as No. 88	Same as No. 88	Same as No. 88	Same as No. 88	Same as No. 88
95		0	12	Farm Land	Same as No. 88	Same as No. 88	Same as No. 88	Same as No. 88	Same as No. 88
96			1	House Land	8	5	3	0	1
97		0	10	House Land	5	2	3	0	2
98		1	10	Waste Land	5	4	1	0	1
99		2	7	Waste Land	5	3	2	0	1
100		1	3	Waste Land	7	4	3	0	2
101		4	2	Waste Land	0	0	0	0	0
102		3	4	Waste Land	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62	Same as No. 62
103		2	5	Waste Land	Same as No. 65	Same as No. 65	Same as No. 65	Same as No. 65	Same as No. 65
104		0	10	Waste Land	Same as No. 97	Same as No. 97	Same as No. 97	Same as No. 97	Same as No. 97
105		0	9	Waste Land	0	1	1	0	1

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
106		6	11	Waste Land	18	10	8	0	5
107		1	2	Waste Land	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
108		0	10	Waste Land	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
109		0	15	Waste Land	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
110		0	10	Waste Land	Same as No. 48	Same as No. 48	Same as No. 48	Same as No. 48	Same as No. 48
111		3	10	Waste Land	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11	Same as No. 11
112		18	12	River Bed/ Waste Land	0	7	10	0	4
113		10	8	River Bed/ Waste Land	17	9	8	0	5
114		0	12	River Bed	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27
115		0	11	River Bed	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27	Same as No. 27
116		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
117		0	1	River Bed	Same as No. 106	Same as No.	Same as No.	Same as No. 106	Same as No. 106

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
						106	106		
118		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
119		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
120		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
121		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
122		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
123		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
124		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
125		0	1	River Bed	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106	Same as No. 106
126		8	7	River Bed	23	12	11	0	9
127		2	11	River Bed	Same as No. 126	Same as No. 126	Same as No. 126	Same as No. 126	Same as No. 126
128		0	16	River Bed	Same as No. 28	Same as No. 28	Same as No. 28	Same as No. 28	Same as No. 28
129		3	8	River Bed	0	0	0	0	0
130		2	19	River Bed	0	0	0	0	0
131		0	19	River Bed	0	0	0	0	0
	Total	375	3		596	290	308	13	174
Reservoir Impounding (Deedal) KP									
1		6	10	Farm Land/ Waste Land/ River Bed	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
2		4	12	Farm Land	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK
3		4	9	Farm Land/ Waste Land/ River Bed	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK	Same as No. 8 in Reservoir Impounding in AJK
4		10	2	Farm Land	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK
5		7	7	Farm Land	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK	Same as No. 15 in Reservoir Impounding in AJK
6		5	3	Farm Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
7		3	18	Farm Land/ Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
8		5	7	Farm Land/ Waste Land	4	2	2	0	1
9		2	8	Farm Land/ Waste Land	9	4	5	2	0
10		0	10	Farm Land	5	2	3	0	1

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
11		3	18	Farm Land/ Waste Land	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18
12		1	10	Farm Land	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18
13		1	19	Farm Land	4	2	2	1	0
14		2	3	Waste Land	11	7	4	2	2
15		6	14	Waste Land	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29
16		0	10	Waste Land	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29
17		1	3	Waste Land	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29	Same as No. 29
18		0	13	Waste Land	7	4	3	1	1
19		0	2	Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
20		4	19	Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
21		12	13	Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
22		4	16	Waste Land	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
23		10	9	Waste Land	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14
24		1	0	Waste Land	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14
25		2	9	Waste Land	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14	Same as No. 14

S.#	Name of Affected Persons	Land Acquisition (Kanal)		Type of Land	No. of Occupants	No. of Person		Status of Income of Adults	
		Kanal	Marla			Male	Female	Long term Employment	Short term Employment
26		2	1	Waste Land	15	7	8	3	2
27		2	8	Waste Land	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18	Same as No. 18
28		10	15	Waste Land	12	8	4	3	2
29		10	3	Waste Land	6	2	4	0	1
30		6	10	Waste Land	5	2	3	0	1
31		0	14	River Bed	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6	Same as No. 6
32		2	0	River Bed	Same as No. 53 in ALDA Powerhouse AJK	Same as No. 53 in ALDA Powerhouse AJK	Same as No. 53 in ALDA Powerhouse AJK	Same as No. 53 in ALDA Powerhouse AJK	Same as No. 53 in ALDA Powerhouse AJK
Total		139	15		78	40	38	12	11

- Note:**

The status of income of adults has been divided into Long term and Short term Employment.

1. Long term employment refers to the permanent employment with government departments, private firm and/or business where income is derived from steady cash stream.
2. Short term employment refers to the work obtained on daily wages.
3. The data has been collected from the record of Revenue Department. Revenue Department keeps record in different set of registers. The present information is from that set which provides broader details of ownership against the major shareholder. Hence, against a certain record, we see the name of major shareholder(s), while for the rest, "Others" is used. However,

when land acquisition will proceed further, minute details on the land ownership shall be collected from other set of registers and compensation shall be provided to each and every land owner, irrespective of the ratio of ownership in a particular parcel of land.

ANNEX-7
MINUTES OF THE MEETINGS FOR CDM
STAKEHOLDERS MEETING

CLEAN DEVELOPMENT MECHANISM (CDM) STAKEHOLDERS MEETING

CDM Stakeholders Meeting Muzaffarabad

As per requirement of CDM one of the stakeholders meeting was held on September 27, 2010 in Muzaffarabad to discuss the CDM issues with the stakeholders. The meeting was attended by the local people and EPA Officials. List of participants is given in Table 4.1 and photographs of the meeting are attached at the end of the report.

Minutes of the Stakeholder Meeting for CDM at Muzaffarabad

Please find below main points/minutes of the Public Hearing held at Sangam Hotel Muzaffarabad Azad Jammu & Kashmir:

Date of Meeting: 27th September 2010

Time of Meeting: 1000hrs – 1500hrs

AJ&K Representation:

Mr. Mohammad Ahsan (Director EPA)

Mr. Shafiq Abbasi (Assistant Director EPA)

Mr. Arshad Iqbal (Assistant Director EPA)

Mr. Javed Ayub (Director Wildlife and Fishries)

Hagler Bailly Pakistan Representation:

Mr. Manzar Naeem Qureshi (Manager Energy Programmes)

SHPL Representation:

Mr. Won-Cheol Park (DCEO)

Mr. Ali Shan (GM Admin & HR)

Mr. Sohail Alam (Finance Manager)

Mr. Atif Ali Shah (Manager Civil)

Mr. Abdul Wahab (Accounts Executive)

Minutes of the Meeting:

The meeting started with recitation of Holy Quran.

Mr. Ali Shan started the proceeding with a welcome note and thanked the guests for attending the meeting.

Presentation on Project Overview by SHPL

2. Mr. Ali Shan made a presentation on overview of Patrind Project, its sponsors and the EPC Contractor. He briefed the participants about the basic features of Patrind Hydropower Project.

3. He also stressed that although this is a hydropower project but it is quite different from the other hydropower projects under operation in Pakistan like Terbela and Mangla. He informed that both these projects are storage type projects while Patrind hydropower Project is a run-of-river project and not much area will be submerged because of the storage behind the weir.
4. Mr. Ali Shan also explained the purpose of the meeting to the participants by differentiating the stakeholder meeting for CDM from the Public hearing of EIA which was held on 5th August 2010.
5. He informed the participants that the bridge across the Jhelum river shall be permanent and will be utilized by the company and the locals as well which will be a highly beneficial for the local residents of village ALDA. He shared that by constructing the bridge the life of the locals will be changed because of the fact that there will be a major development in this area and the village will become a part of the city Muzaffarabad.
6. SHPL also showed its commitment towards environmental compliance and stressed upon the importance of the trees and other environmental and social aspects. Mr. Ali Shan explained the participants that the number of trees given in the presentation and in the EIA can be changed after the detail survey from the forest department and all of them will not be cut down, only few will be removed because of construction of roads. The trees will also be planted during the annual tree plantation campaign arranged by the provincial governments annually.
7. SHPL ensured that graveyards, mosques and schools shall be protected as also been committed in the public hearing, in relation to this matter a survey was also conducted by the consultants (PES) in presence of the local residents and was confirmed that no cultural heritage is being damaged by the head pond.

Presentation on CDM by HB

After completion of the presentation by Mr. Ali Shan he invited Mr. Manzar Naeem Qureshi for the presentation on CDM.

1. Mr. Manzar introduced himself and thanked the public for showing up in the consultative stakeholder meeting.
2. Mr. Manzar again clarified the confusion between Public Hearing and CDM Stakeholder meeting. He explained that it is a mandatory requirement of UN for explaining and sharing the benefits of CDM with the Stakeholders.
3. Mr. Manzar started the presentation by explaining green house gases effects in a very simple manner to the general public, he further elaborated impacts of green house gases on the Ozone layer.
4. He also explained the negative effects of CO₂ and other gases due to

increased industrialization and related commercial activities. He further added that due to above reasons global warming, change in weather, rise in sea level and health hazards are on rise.

5. He also introduced the role of UNFCCC and history of Kyoto Protocol with respect to clean development mechanism.
6. He informed the audience that Pakistan ratified the Kyoto Protocol on January 11, 2005.
7. Mr. Manzar explained about the CERs which is a measuring unit for emission reduction. He stressed upon the fact that the CERs should get the real and measurable benefits to the community where project has to be developed.
8. In addition he told that whole CDM process has to be verified by a third party for Kyoto Protocol compliance.
9. He shared the reasons behind the preference of thermal over hydel projects in Pakistan due to less upfront cost in developing such projects.
10. He informed that according to the CDM criteria the projects are classified as regular size projects such as Patrind and small size projects which are less than 15 MW in capacity.

Question and Answer session

After the completion of presentation Mr. Manzar invited the audience for the comments, questions and suggestions.

- i. Director EPA-AJK specifically asked about the difference between CDM and International Emission Trading

Mr. Manzar explained that International Emission Trading can be conducted independently by two companies anywhere in the world while in case of CDM there is a standardize mechanism needs to be followed according to the standards of UNFCCC.

- ii. Mr. Javaid from Wildlife and Fisheries Department asked the question that what is more favorable among thermal, hydel and nuclear from CERs point of view.

Mr. Manzar replied only hydel, nuclear and wind power projects come under CDM regime, while fuel/thermal based projects can only be considered if they become efficient and result in emission reduction.

- iii. Mr. Shafiq Abbasi from EPA AJK put an important question with relation to Additionality concept in CDM.

Mr. Qureshi in very detail and comprehensive manner elaborated the concept of Additionality to the audience. He argued that non conventional projects to be considered for CDM. He also gave an example of Nepal where these kind of run-of-the-river projects are very common and therefore could not be considered Additional by CDM Executive Board.

Conversely in Pakistan such projects are still not common and therefore stand as strong candidates to enjoy benefits of CDM.

- iv. Director EPA Mr. Ahsan asked question that as too many hurdles and requirements are in place in CDM projects implementation. Why don't we go for other projects like coal projects which are available in abundance in Pakistan?

Mr. Manzar replied that only non typical projects such as run-of-the-river are not common in Pakistan therefore such barriers in implementing these projects would not be much difficult as in other countries.

- v. Mr. Shafiq Abbasi from EPA AJK put a question if project is being financed by strong sponsors and world renowned lenders then why CDM revenues are needed?

Mr. Qureshi explained that lenders make sure CDM is being followed by project developers. He further clarified if two projects are under consideration they have to opt for that which follows CDM.

- vi. Mr. Abbasi asked whether the CDM revenues will be the part of debt amount coming from lenders or not.

Mr. Manzar told that these revenues are over and above from the project financing amount.

- vii. Director EPA Mr. Ehsan asked about the beneficiary of the CDM revenues.

Mr. Qureshi elaborated that according to the CDM criteria the revenues will be shared with the project proponent. Indirect way it will help the country in shape of foreign exchequer. He further added that according to the Pakistan prevailing Power Policy these revenues will be shared between the project proponents and the power purchaser.

- viii. Director EPA asked about the duration of CERs revenue?

Mr. Manzar explained there are two options available. First is one time commitment period of 10 years while the other option is 7 years term recurring 3 times.

- ix. Director EPA Mr. Ahsan asked will the project require NOC from EPA for CDM.

Mr. Qureshi replied that NOC from both the EPAs (AJK and KP) is a pre-requisite for CDM.

- x. Mr. Javaid Ayub from Forest Department pointed out that no poverty alleviation plan mentioned in EIA which requires company's consideration. In addition he also pointed out that no baseline survey on fisheries has been conducted and the sponsor should conduct this survey on fisheries.

Mr. Ali Shan replied that community development plan is under consideration and will be finalized with the help of government authorities.

On the question of baseline data on fisheries Mr. Atif informed that the baseline survey of fisheries is being conducted by the consultants (PES) and will be completed by the end of next month so will be available if and when required.

- xi. Noorzaman Qureshi resident of village Tarchela told that only verbal commitments have been made by the company which we expect to be honored. Also a public park on Tarchela side is demanded for entertainment of the locals. He further demanded that technical college should be established by the company.

Mr. Ali Shan answered that these issues will be discussed with the higher management.

- xii. Mohammad Shabir from Patrind village raised the question that the name of project in Urdu should be written correctly. He asked about the construction start and end date.

Mr. Ali Shan told that the construction is going to start in next month. While total construction time is 48 months from the Financial Close date.

In the end Director EPA on behalf of Govt. of AJ&K appreciated the efforts of the project company for investing in AJ&K and its seriousness for the implementation of Patrind Hydropower Project. He further thanked Mr. Qureshi for sharing knowledge on CDM in a very comprehensive and simplistic manner.

He addressed the audience and motivated them that this project is very important for the country in this period of electricity shortage and is one of the best environmentally viable project. He in addition informed the locals that the NOC which has been issued to the company is only for environmental compliance which does not cover the land purchase issues. This matter will be addressed by the Revenue Department of Muzaffarabad.

Lastly Mr. Ali Shan thanked all the participants for attending the meeting.

List of Participants of CDM Stakeholders Meeting held on September 27, 2010-AJK

Sr. No.	Name	Address	Telephone Number
1		AJK-EPA, P&D Kashmir Plan House Muzaffarabad.	05828-921541 0321-9809867
2		Block F, Room No. 1, Ground Floor New Distt. Complex Muzaffarabad. AJK.	0300-5262014
3		AJK-EPA Muzaffarabad.	0300-5109604
4		Village Alda, Muzaffarabad.	0333-7976414
5			
6		Bamaqam Alda	0322-9301630 0344-5946978
7		Bamaqam Alda	05822-448170
8		Tarcheela	0344-5525792
9		Tarcheela	0344-8381139 0334-5588232
10		Tarcheela	0334-5701473
11		Patrind	
12		Tarcheela	0345-9636896
13		Tarcheela	0334-9866704
14		Patrind	0322-2103482
15		Muzaffarabad	0346-5124215
16		Tarcheela	0344-5954072
17		Tarcheela	0355-8109011
18		Alda	
19		Tarcheela, Patrind	0333-6402895
20		Tarcheela, Patrind	0332-8972983
21		Tarcheela, Patrind	0334-8353113
22		Tarcheela	0334-9556375
23		Sund Gali, Dobail	0346-5394741
24		Garhi Dupatta	0346-9694948
25		Garhi Dupatta, Noor Garan	0344-9555878
26		Amboor Camp	0301-5330295
27		Alda	0301-5722910
28		Sund Gali	0346-5150124

Sr. No.	Name	Address	Telephone Number
29		Village Soran	0334-8397797
30		Soran	
31		Chattar	0333-5442419
32		Hassan Abad	0312-9064640
33		Alda	0300-9768082
34		Alda	0345-5354699
35		Alda	0308-8795816
36		Sund Gali	0334-5718960
37		Tarcheela	
38		Tarcheela	0312-5421433
39		Tarcheela	82203-31206844
40		Tarcheela	0334-9674835
41		Sund Gali	0301-5858079
42		Alda	0334-5723151
43		Alda	0346-9654421
44		Tarcheela, Patrind	0302-5016580
45		Tarcheela, Patrind	0301-5633963
46			0345-3681732 0345-9570668
47			
48		Tarcheela, Patrind	0312-2553857
49		Tarcheela	0312-9293360
50		Tarcheela	0312-9010709
51		Tarcheela	
52		Hassanabad, Alrah	
53		Alda	
54		Alda	
55		Dhani	
56		Dhani	0346-9657036
57		Dhani	0332-5128399
58		Nala Sahai	0300-2094393
59		Naran Sharif	0345-5299576
60		Wadi Liah	0346-8119044

Sr. No.	Name	Address	Telephone Number
61		Alda	0334-5702063
62		Alda	0331-8184505
63		Alda	0301-5620144
64		AJK University	0346-5329196
65		Soran	0331-9285730
66		Tarcheela	0345-9616015
67		Tarcheela	0345-6091257

CDM Stakeholders Meeting at Barbein – KP

Second CDM public meeting under the requirement of CDM was held on September 28, 2010 in Barbein Abbottabad to discuss the CDM issues with the stakeholders. The meeting was attended by the local people and EPA Officials. List of participants is given in Table 4.2 and photographs of the meeting are attached at the end of the report.

Date of Meeting: 28th September 2010

Time of Meeting: 1000hrs – 1500hrs

KP Representation:

Mr. Noman Rasheed (Assistant Director, EPA - KP)

Mr. Naveed Anjum (Monitoring Inspector, EPA – KP)

Mr. Abrar Ahmed (Monitoring Inspector, EPA – KP)

Hagler Bailly Pakistan Representation:

Mr. Manzar Naeem Qureshi (Manager Energy Programmes)

SHPL Representation:

Mr. Ali Shan (GM Admin & HR)

Mr. Sohail Alam (Finance Manager)

Mr. Atif Ali Shah (Manager Civil)

Mr. Abdul Wahab (Accounts Executive)

Minutes of the Meeting:

Main points/minutes of the Consultative Stakeholders Meeting for CDM held at Barbein village, Iqra Model High School, Boi Road, Gari Habibullah, Khyber Pakhtunkhwa:

The meeting started with recitation of Holy Quran.

Mr. Ali Shan started the proceeding with a welcome note and thanked the

guests for attending the meeting.

Presentation on Project Overview by SHPL

1. Mr. Ali Shan made a presentation on overview of Patrind Project, its sponsors and the EPC Contractor. He briefed the participants about the basic features of Patrind Hydropower Project.
2. He also stressed that although this is a hydropower project but it is quite different from the other hydropower projects under operation in Pakistan like Terbela and Mangla. He informed that both these projects are storage type projects while Patrind hydropower Project is a run-of-river project and not much area will be submerged because of the storage behind the weir.
3. Mr. Ali Shan also explained the purpose of the meeting to the participants by differentiating the stakeholder meeting for CDM from the Public hearing of EIA which was held on 5th August 2010.
4. He informed the participants that the bridge across the Jhelum river shall be permanent and will be utilized by the company and the locals as well which will be a highly beneficial for the local residents of village ALDA. He shared that by constructing the bridge the life of the locals will be changed because of the fact that there will be a major development in this area and the village will become a part of the city Muzaffarabad.
5. SHPL also showed its commitment towards environmental compliance and stressed upon the importance of the trees and other environmental and social aspects. Mr. Ali Shan explained the participants that the number of trees given in the presentation and in the EIA can be changed after the detail survey from the forest department and all of them will not be cut down, only few will be removed because of construction of roads. The trees will also be planted during the annual tree plantation campaign arranged by the provincial governments annually.
6. SHPL ensured that graveyards, mosques and schools shall be protected as also been committed in the public hearing, in relation to this matter a survey was also conducted by the consultants (PES) in presence of the local residents and was confirmed that no cultural heritage is being damaged by the head pond.

Presentation on CDM by HB

After completion of the presentation by Mr. Ali Shan he invited Mr. Manzar Naeem Qureshi for the presentation on CDM.

1. Mr. Manzar introduced himself and thanked the public for showing up in the consultative stakeholder meeting.
-

2. Mr. Manzar again clarified the confusion between Public Hearing and CDM Stakeholder meeting. He explained that it is a mandatory requirement of UN for explaining and sharing the benefits of CDM with the Stakeholders.
3. Mr. Manzar started the presentation by explaining green house gases effects in a very simple manner to the general public, he further elaborated impacts of green house gases on the Ozone layer.
4. He also explained the negative effects of CO₂ and other gases due to increased industrialization and related commercial activities. He further added that due to above reasons global warming, change in weather, rise in sea level and health hazards are on rise.
5. He also introduced the role of UNFCCC and history of Kyoto Protocol with respect to clean development mechanism.
6. He informed the audience that Pakistan ratified the Kyoto Protocol on January 11, 2005.
7. Mr. Manzar explained about the CERs which is a measuring unit for emission reduction. He stressed upon the fact that the CERs should get the real and measurable benefits to the community where project has to be developed.
8. In addition he told that whole CDM process has to be verified by a third party for Kyoto Protocol compliance.
9. He shared the reasons behind the preference of thermal over hydel projects in Pakistan due to less upfront cost in developing such projects.
10. He informed that according to the CDM criteria the projects are classified as regular size projects such as Patrind and small size projects which are less than 15 MW in capacity.

Question and Answer session

After the completion of presentation, Mr. Ali Shan from SHPL and Mr. Manzar invited the audience for the comments, questions and suggestions.

- i. Mr. Mohammad Iqbal, a resident from Deedal Meera complained that the meeting should have been conducted in Deedal village as it is closer to weir site and the number of affectees is more than in Barbein village.
- ii. He also pointed out that villagers from Deedal want to know exact number of affectees and what plan is in place for managing affectees by SHPL.
- iii. The last point by Mr. Iqbal was that the Project Company should take in to confidence the residents of nearby villagers as not much plan and details of the construction have been shared by the Company.

Mr. Ali Shan explained that first he looked for such place in Deedal village but due to lack of availability of plain land and corn crop was not harvested, no such place was available. Also Barbein village is not too far

from Weir site either as not more than 500 meters away from Deedal village. He also satisfied the public that Company will send technical advisor's personnel in order to share the exact details and they will elaborate all technical details including rise of water after Weir construction etc.

- iv. A question in relation to amount of water available after construction of Weir was asked by a participant.

Mr. Ali Shan responded that a minimum of 70.6 cusec amount of water shall be available even in low flow season which is considered adequate for usage by the locals.

- v. Another question raised from the Participant was about the scenario that as the current capacity of the Project is 150 MW but what if later on increased by the Project Company and rise in level of water by such expansion?

Mr. Ali explained that the project feasibility has long been conducted and approved by the Government. As per feasibility study the maximum generation capability is 150 MW so no increase later on can be envisaged and therefore the future expansion is not a practical imagination.

- vi. Mr. Ali ur-Rehman from Deedal Meera asked that villagers want to get exact details of how many number of affectees, exact location of submerging areas and part of road shall go under water by constructing the Weir.

The Company informed that as per presentation earlier given to public, only one house will be needed to relocate while no other major structures will be submerged by rise of water. However a survey by our technical advisor is under progress which shall exactly locate the level of water rise and such point will be physically highlighted by various highlighters and colors etc.

- vii. Where the colony and compound for construction staff and personnel would be built?

Mr. Ali Shan told the audience that all staff colonies including staff from Pakistan and Korea shall be built in AJ&K part and therefore people on KP side need not to worry about privacy aspects.

- viii. Mr. Mohammad Siddiq from Deedal Meera also reiterated about taking in to confidence people of the village as lots of insecurities are present amongst them. He asked that whether the Patrind Project is joint ownership of Pakistan and AJ&K?

Mr. Ali Shan explained the sharing of Water Use Charge and also elaborated the Concessionary framework to general public.

- ix. Villagers from Deedal Meera also demanded similar meeting to be held in Deedal Meera. They also demanded that in next meeting, they should be informed about construction details and schedule in addition to exact

number of affectees and areas.

- x. A villager, Mr. Malik Iman raised the concern that the proposed location of crushing plant is in populated area and it should be relocated somewhere else.

Mr. Ali Shan explained that the area designated for crushing is not located in populated area so people may need not to worry and should not feel endangered by crushing activity since selection of location has been made after due consideration.

List of Participants of CDM Stakeholders Meeting held on September 28, 2010 - KP.

Sr. No.	Name	Address	Telephone Number
1		Distt. Tehsil Abbotabbad Village	03038659949
2		Barbein	03229290933
3		Dedal Nakka	03329207547
4		Barbein	
5		Barbein	03225768528
6		Dalola	03345626447
7		Deedal	03339984419
8		Barbein	03455510048
9		Barbein	03035711810
10		Barbein	03135954856
11		Deedal	03349271920
12		Dandi Deel	03344539677
13		Deedi Sayyal	03325710327
14		Deedi Sayyal	03348965864
15		Barbein	03229413101
16		Barbein	03225768671
17		Dhani	03459628330
18		Barbein	03035302375
19		Barbein	03229407801
20		Barbein	03225218238
21		Deedal	
22		Meera	03005643942
23		Mansehra	
24			

Sr. No.	Name	Address	Telephone Number
25		Sayyan Di Bandi	03449552453
26		Barbein	03229291299
27		Barbein	03009799987
28		Barbein	03015385762
29		Dedal Meera	03219687989
30		Tarcheel	03345588232
31		Barbein	0322990876
32		Malik Aaman	
33		Sayyan Di Bandi	
34		Barbein	
35		Barbein	03229301991
36		Motor Tanki	03025440630
37		Khas Deedal Kamal Garan	03319104670
38		Dalola	03319109040
39		Bandi Samandar	032298
40		Bandi Samandar	03135914603
41		Barbein	03229295687
42		Barbein	03229304618
43		Barbein	13101-0965912-1
44		Village Tetrri	0992-845102
45		Cholpeed	03235374441
46		Deedal Susrati	03349128122
47			03345525792
48		Barbein	03229306223
49		Rahmanabad (Reedal)	03005612367
50		Asstt. Director	03339256038
51		Monitoring Officer (PAF)	03335057619
52		Monitoring Officer (PAF) Regional Office Abbottabad	03348960816
53		Zameendari	
54		Regional Officer Wild Life Kaghaan	03469276367, 03459623569
55		SDPO Wild Life Mardan	03439464007

Sr. No.	Name	Address	Telephone Number
		C/o Chief Coordinator M/L K.Pur	
56		Village Rabbani	03215274090
57		Barbein	03469700203
58		Barbein	03328450009
59		Sarai	
60		Sarai	
61		Village Dhanni	
62		Village Sareeq	
63		Village Sarai	
64		Village Deedal	
65		Barbein	
66		Dhani	
67		Village Deedal	
68		Village Deedal	
69		Village Deedal Geera	
70		Village Deedal	
71		Village Deedal	
72		Village Deedal	
73		Village Deedal	
74		Abdur Rasheed	
75		Abdur Rasheed	
76			
77		Village	
78		Village Deedal	
79		Deedal	03325090801
80		Deedal Nady	03124344652
81		Dalola	
82		Meera	03343435548
83		Dalola	03328904202
84		Deedli Thelee	03328974320
85		Barbein	03015385762
86		Deedal	03229233791, 03239829451
87		Barbein	03055113179

Sr. No.	Name	Address	Telephone Number
88		Barbein	
89		Narjhela Tareend	03348353113
90		Narjhela Tareend	0333640
91		Narjhela Tareend	03229407810
92		Barbein	03465488278
93		Dhani	
94		Tangi	03055787647
95		Zeeda	03329207547
96		Pal	03216260907
97		Deedal	03335338311
98		Sarai Deedal	
99		Sarai	
100		Deedal	
101		Deedal	
102		Deedal	
103		Sarai	
104		Sarai	
105		Motri Gagan	
106		Bandi Kassi	
107		Mohri	
108		Deedal Meera	03229421205
109		Deedal Nakar	
110		Deedal Maks	
111		Deedal Meera	
112		Deedal Meera	03335052939
113		Deedal Naroka	
114		Sarai	
115		Sonetti	

Annex-8
Participants of Meetings held for Information
Disclosure and Community Consultation
in 2006 and 2010

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
Venue: Village Thori, Muzaffarabad				
1.	02/06/2006		Farmer	<ul style="list-style-type: none"> Project Benefits in the area
			Mason Worker	<ul style="list-style-type: none"> Awareness of the people about the project
			Farmer	<ul style="list-style-type: none"> Identification of Assets affected
			Shopkeeper	<ul style="list-style-type: none"> Redress mechanism
			Tailor	<ul style="list-style-type: none"> Procedure for Land Acquisition
			Driver	<ul style="list-style-type: none"> Prevailing prices of land/ trees in the area Social values of the area Existing infrastructure in the area Utility services in the area
Venue: Village Tarcheela, Muzaffarabad				
2.	03-06-2006		Farmer	<ul style="list-style-type: none"> Project Benefits in the area
			Medical Store	<ul style="list-style-type: none"> Awareness of the people about the project
			Shopkeeper	<ul style="list-style-type: none"> Identification of Assets affected
			Farmer	<ul style="list-style-type: none"> Redress mechanism
			Hotel	<ul style="list-style-type: none"> Procedure for Land Acquisition
			Ex. Member UC	<ul style="list-style-type: none"> Prevailing prices of land / trees in the area
		Farmer	<ul style="list-style-type: none"> Social values of the area Existing infrastructure in the area Utility services in the area 	

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
Venue: Deedal Meera Village, Abbottabad				
3.	04-06-2006		Farmer	<ul style="list-style-type: none">▪ Project Benefits in the area▪ Awareness of the people about the project▪ Identification of Assets affected▪ Redress mechanism▪ Procedure for Land Acquisition▪ Prevailing prices of land / trees in the area▪ Social values of the area▪ Existing infrastructure in the area▪ Utility services in the area
			Farmer	
			Farmer	
			Farmer	
			Farmer	
			Farmer	
			Farmer	
Venue: Patrind Village, Muzaffarabad				
4.	05-06-2006		Ex. Member UC	<ul style="list-style-type: none">▪ Project Benefits in the area▪ Awareness of the people about the project▪ Identification of Assets affected▪ Redress mechanism▪ Procedure for Land Acquisition▪ Prevailing prices of land / trees in the area▪ Social values of the area▪ Existing infrastructure in the area
			Farmer	
			Farmer	
			Farmer	
			Farmer	

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
				<ul style="list-style-type: none">Utility services in the area
Venue: Deedal Meera Village, Abbottabad				
1.	31-03-2010		Student	<ul style="list-style-type: none">Project Benefits in the area
2.			Mason	
3.			Worker	
4.			Farmer	
5.			Mason	<ul style="list-style-type: none">Awareness of the people about the project
6.			Worker	
7.			Tailor	<ul style="list-style-type: none">Identification of Assets affected
8.			Driver	
9.			Cook	<ul style="list-style-type: none">Redress mechanism
10.			Shopkeeper	
11.			Farmer	<ul style="list-style-type: none">Procedure for Land Acquisition
12.			Student	
13.			farmer	<ul style="list-style-type: none">Prevailing prices of land/ trees in the area
14.			Farmer	
<ul style="list-style-type: none">Social values of the area				
<ul style="list-style-type: none">Existing infrastructure in the area				
<ul style="list-style-type: none">Utility services in the area				
Venue: Boi Village, Abbottabad				

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
1.	31-03-2010		Shopkeeper	<ul style="list-style-type: none">▪ Project Benefits in the area
2.			Medical Store	<ul style="list-style-type: none">▪ Awareness of the people about the project
3.			Shopkeeper	<ul style="list-style-type: none">▪ Identification of Assets affected
4.			Rtd. Lineman WAPDA	<ul style="list-style-type: none">▪ Redress mechanism
5.			Hotel	<ul style="list-style-type: none">▪ Procedure for Land Acquisition
6.			Farmer	<ul style="list-style-type: none">▪ Prevailing prices of land / trees in the area
7.			Farmer	<ul style="list-style-type: none">▪ Social values of the area
8.			Farmer	<ul style="list-style-type: none">▪ Existing infrastructure in the area
9.			Driver	<ul style="list-style-type: none">▪ Utility services in the area
Venue: Patrind Village, Muzaffarabad				
1.	1-04-2010		Farmer	<ul style="list-style-type: none">▪ Project Benefits in the area
2.			Farmer	<ul style="list-style-type: none">▪ Awareness of the people about the project
3.			Farmer	<ul style="list-style-type: none">▪ Identification of Assets affected
4.			Farmer	<ul style="list-style-type: none">▪ Redress mechanism
5.			Farmer	<ul style="list-style-type: none">▪ Procedure for Land Acquisition
6.			Farmer	
7.			Farmer	
8.			Farmer	
9.			Farmer	
10.			Farmer	
11.			Farmer	
12.			Farmer	

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
				<ul style="list-style-type: none"> ▪ Prevailing prices of land / trees in the area ▪ Social values of the area ▪ Existing infrastructure in the area ▪ Utility services in the area
Venue: Tarcheela Village, Muzaffarabad				
1.	01-04-2010		Ex.Member Union Council	<ul style="list-style-type: none"> ▪ Project Benefits in the area
2.			Farmer	
3.			Farmer	
4.			Farmer	<ul style="list-style-type: none"> ▪ Awareness of the people about the project
5.			Farmer	
6.			Farmer	
7.			Farmer	<ul style="list-style-type: none"> ▪ Identification of Assets affected
8.			Farmer	
9.			Farmer	
10.			Farmer	<ul style="list-style-type: none"> ▪ Redress mechanism
11.			Farmer	
12.			Farmer	
13.			Farmer	<ul style="list-style-type: none"> ▪ Procedure for Land Acquisition ▪ Prevailing prices of land / trees in the area ▪ Social values of the area

Sr. No.	Date	Name of Participants	Professions	Topics Discussed
				<ul style="list-style-type: none"> Existing infrastructure in the area Utility services in the area
Venue: Alda Village, Muzaffarabad				
1.	02-04-2010		Govt. Employee	<ul style="list-style-type: none"> Project Benefits in the area Awareness of the people about the project
2.			Govt. Employee	
3.			Govt. Employee	
4.			House Wife	<ul style="list-style-type: none"> Identification of Assets affected Redress mechanism Procedure for Land Acquisition Prevailing prices of land / trees in the area Social values of the area Existing infrastructure in the area Utility services in the area
5.			Govt. Employee	
6.			Buisness	
7.			Buisness	
8.			Govt. Employee	
9.			Govt. Employee	
10.			Revenue clerk	
11.			Buisness	
12.			Business	
13.			Govt. Employee	

Annex-9
MINUTES OF THE PIUBLIC HEARING AT
MUZAFFARABAD

Minutes of the Public Hearing at Muzaffarabad

Main points/minutes of the Public Hearing held at Sangam Hotel Muzaffarabad
Azad Jammu & Kashmir:

Date of Hearing: 5th August 2010

Time of Hearing: 1000hrs – 1330hrs

AJ&K Representation:

Mr. Bashir Khan (Director EPA)

Mr. Samiullah (Secretary P&D)

Mr. Shafiq Abbasi (Assistant Director EPA)

Mr. Farooq Hyder Khan

Mr. Muhammad Haneef (Member Assembly)

SHPL Representation:

Major General (R) Farrukh Javed (CEO)

Mr. No Hyuk Park (GM Civil)

Mr. Ali Shan (GM Admin & HR)

Mr. Ahmed Mufeez Sadiq (Commercial Manager)

Mr. Atif Ali Shah (Manager Civil)

PES Representation:

Dr. Nawaz Tariq (Environmental Engineer)

Mr. Naeem Akhtar (Environmentalist)

Minutes of the Meeting:

1. The meeting started with recitation of Holy Quran.
2. Mr. Shafiq Abbasi started the proceeding with a welcome note and explained the audience regarding the legal requirements of the public hearing under the relevant sections of environmental law.
3. Mr. Abbasi briefed the participants about the basic features of Patrind Hydropower Project.
4. Mr. Abbasi invited CEO to present the project features, benefits and impacts before the audience.

CEO briefed in detail all the aspects of the project from development to operation phase. The presentation and brief of the project were prepared in local language (Urdu) for better understanding of all the stakeholders.

In the presentation CEO addressed the issues raised by the locals after the publication of the advertisement in the newspapers.

a) Protection of the Graveyard

CEO told the participants that this is our cultural and religious issue and the company will take all necessary actions to protect the sensitive areas.

b) Free Electricity

CEO told the audience that the power distribution is responsibility of Power Purchaser (NTDC) and our generation despatch is on 132 KV line, so this is not possible for the company.

c) Development of roads, schools, colleges and hospitals for the locals

CEO told that under the social uplift plan the company is planning to establish a medical clinic for the locals in the project area under the KOICA project. In addition the company is willing to facilitate the Govt. of AJ&K in capacity building of the locals. Roads which fall in the project area and used by the company will definitely be improved.

Detailed Briefing by CEO, and Questions/Reservations/Suggestions

During the Q&A session following issues were raised.

- i. Mr. Iftikhar Awan a local resident asked that in Muzaffarabad there is only one Children Park for the local community at Lower Chattar. The project company is planning to take over the Park during construction what will happen to it after wards any plans of its development?

CEO of SHPL detailed that after end of construction phase a state of the art park like Japanese Park in Islamabad will be developed for children with much better facilities than the existing one and the people of Muzaffarabad will definitely feel proud.

- ii. Mr. Farid enquired that the spring flows would be affected by the construction of the Tunnel in Patrind and also for the flows on the downstream of the weir in winter season.

CEO replied that the tunnel is concrete and steel lined so there will be no chance that the water from the springs can enter in to the system only water can enter the tunnel will be from the intake. In this regard people need not to worry for the flow of spring water. On the other issue of downstream flow CEO again informed that 2 cumecs of the flow will be discharged throughout the year and on the downstream there is no consumptive use by the locals.

- iii. Mr. Noor Zaman a resident of Tarcheela told the audience that the company is working in the area from last 5 years and we are facilitating them and will facilitate them in future as well. Furthermore, he demanded that:
 - a) Permanent employment should be given to the affectees
CEO replied that suitable/capable locals will be given preference in the employment
 - b) The compensation package should be equivalent to the rates as in Muzaffarabad city
CEO told that the compensation package will be prepared in consultation with the Revenue Department of Muzaffarabad and the affectees
 - c) Proper arrangement should be there for the privacy of the residents specially the women in the area
CEO told that this issue will be given high importance
 - d) Proper water supply scheme should be developed for the use of the residents and the company staff
CEO told Mr. Zaman that during his last visit to the site he has already satisfied the locals that proper arrangement will be made for this issue
 - e) Disturbance for the locals during the construction regarding the Noise and Dust
CEO replied that now-a-days the technology has developed significantly and the procedures are done in such a way to minimize the noise and dust issues, but the contractor has also promised and will ensure the control on the above said issues.
- iv. In addition to above he enquired about the height of the weir that if the weir height is 42 meters from the normal water level then the villages will be submerged.
CEO replied that the weir height is 42 meters from the foundation of the weir to the level of the bridge, in actual it will be about 26 meters high as in feasibility study and not a single house will be submerged/affected due to the storage.
- v. A professor from the Zoology Department of University of AJ&K asked about the mitigation measures regarding the birds and aquatic life. He further enquired about the disposal of the excavated material.
Dr. Nawaz Tariq explained that there are no such species in the project area, this issue has already been mentioned in the EIA in very much detail and the same question was also answered during the presentation

to EPA AJ&K. He further explained that the disposal sites have already been identified in the EIA report.

CEO added that together with the proposed disposal sites in EIA Report, the company in consultation with the EPA will decide the sites for the disposal of the material.

- vi. Mr. Saleem, resident of Tarcheela asked that the compensation package should be reasonable and water supply scheme should be developed for the locals.

In addition to above he demanded that if the area to be acquired separates the land in two or three portions and the company is planning to acquire only the central part then what will happen with the remaining area because it will be of no use or very difficult to manage, so the company should acquire whole of the land of that owner.

CEO replies that the process of land acquisition will definitely address this issue.

- vii. Mr. Sarfaraz Khan, resident of village ALDA handed over his demands in writing. (Letter attached)

In addition he suggested that the bridge across River Jhelum may be shifted downstream.

CEO replied that he will visit the site and look in to the matter but he also mentioned that changing the location or the design is the responsibility of the EPC Contractor and it may be difficult to change the location at this stage.

In addition to all the queries CEO added that by constructing the bridge across the Jhelum river and on the weir side on Kunhar river will definitely enhance the accessibility of the locals and will boost the real estate as well.

After the Q&A session the AJ&K participants addressed the audience and requested that this project is of national importance so the people of Muzaffarabad should facilitate the company in all the manners as the people of AJ&K always do.

Furthermore, the officials also told the locals that Govt. of AJ&K will protect the rights of the affectees. According to the laws, the No Objection Certificate (NOC) will have the conditions for the project company to fulfill all the requirements under the Environmental Law and commitments made by the company, if the company fails to fulfill the requirements the NOC can be withdrawn at any time.

In the end Director EPA on behalf of Govt. of AJ&K appreciated the efforts of the project company for investing in AJ&K and its seriousness for the

implementation of Patrind Hydropower Project.

He addressed the audience and motivated them that this project is very important for the country in this period of electricity shortage and is one of the best environmentally viable project.

Lastly he thanked CEO SHPL, his team and especially Korean friends for coming all the way to Muzaffarabad for this occasion.

Annex-10
LAND REQUIREMENT FOR PATRIND
HYDROPOWER PROJECT

Land Acquisition for Implementation of Patrind Hydropower

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
A. Power House & Access Road (ALDA Village) AJK											
1		0	0	0	0	0	5	0	0	0	5
2		0	0	0	0	0	10	0	0	0	10
3		0	0	0	0	0	5	0	0	0	5
4		0	0	0	0	1	10	0	0	1	10
5		0	0	0	0	0	3	0	0	0	3
6		0	0	0	0	1	8	0	0	1	8
7		0	0	0	0	2	2	0	0	2	2
8		0	0	0	10	0	0	0	0	0	10
9		0	0	0	10	0	0	0	0	0	10
10		0	0	0	19	0	0	0	0	0	19
11		5	0	0	0	6	2	0	2	11	4
12		0	0	0	0	0	0	0	4	0	4
13		0	0	1	14	1	0	0	0	2	14
14		0	10	0	0	0	0	0	0	0	10
15		1	0	0	8	1	0	0	0	2	8
16		0	0	0	9	0	0	0	0	0	9
17		2	0	1	1	1	0	0	0	4	1
18		0	0	0	10	0	0	0	0	0	10
19		0	10	0	0	0	0	0	0	0	10

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
20		0	18	0	0	0	2	0	0	1	0
21		1	5	0	0	0	3	0	0	1	8
22		0	0	0	0	0	0	0	5	0	5
23		0	10	0	0	0	4	0	0	0	14
24		0	4	0	0	0	0	0	0	0	4
25		0	3	0	0	0	0	0	0	0	3
26		0	2	0	0	0	0	0	0	0	2
27		0	0	0	0	0	0	0	4	0	4
28		0	0	0	0	0	0	0	3	0	3
29		0	0	0	0	0	0	0	3	0	3
30		0	0	0	0	0	0	0	4	0	4
31		0	0	0	0	0	0	0	12	0	12
32		3	15	0	0	0	2	0	5	4	2
33		1	5	0	0	0	0	0	6	1	11
34		0	10	0	0	0	0	0	0	0	10
35		2	0	0	9	0	0	0	0	2	9
36		0	0	1	8	0	0	0	0	1	8
37		0	0	1	13	0	0	0	0	1	13
38		0	0	0	11	0	0	0	0	0	11
39		0	0	3	15	0	0	0	0	3	15
40		2	15	0	0	0	5	0	0	3	0
41		1	10	0	0	0	2	0	0	1	12

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
1		0	0	0	0	10	11	0	0	10	11
2		0	0	7	19	0	0	0	0	7	19
3		0	0	0	0	38	1	0	0	38	1
4		0	0	0	0	7	15	0	0	7	15
Sub-Total (D)		0	0	7	19	56	7	0	0	64	6
E. Access Road (Patrind/Tarcheela) AJK											
1		0	0	0	0	4	4	0	0	4	4
2		0	0	2	6	0	0	0	0	2	6
3		0	0	0	0	0	17	0	0	0	17
4		0	0	0	0	2	13	0	0	2	13
5		0	0	0	0	1	6	0	0	1	6
6		0	0	0	0	0	19	0	0	0	19
7		0	0	0	0	0	10	0	0	0	10
8		0	0	0	0	1	13	0	0	1	13
9		0	0	0	0	1	12	0	0	1	12
10		0	0	0	0	0	15	0	0	0	15
11		0	0	0	0	0	0	0	1	0	1
12		0	19	0	0	0	0	0	0	0	19
13		0	7	0	0	0	0	0	0	0	7
14		0	10	0	0	0	0	0	0	0	10
15		1	17	0	0	0	0	0	0	1	17
16		0	12	0	0	0	6.5	0	0	0	18.5
17		0	12	0	0	0	0	0	0	0	12
18		1	2	0	0	0	0	0	0	1	2
19		0	13	0	0	0	0	0	0	0	13
20		0	16	0	0	0	0	0	0	0	16
21		0	11	0	0	0	0	0	0	0	11
22		0	10	0	0	0	0	0	0	0	10
23		0	12	0	0	0	0	0	0	0	12
24		0	11	0	0	0	0	0	0	0	11
25		0	3	0	0	0	0	0	0	0	3
26		2	7	0	0	0	0	0	0	2	7
27		1	13	0	0	0	0	0	0	1	13
28		0	1	0	0	0	0	0	0	0	1
29		0	0	0	0	1	17	0	0	1	17

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
30		0	0	0	0	0	7	0	0	0	7
31		0	0	0	0	1	9	0	0	1	9
32		0	0	0	0	0	3	0	0	0	3
33		0	0	2	12	0	0	0	0	2	12
Sub-Total (E)		13	16	4	18	18	11	0	1	37	6.5
F. Construction Camp (Patrind/Tarcheela) AJK											
1		0	0	7	4	0	0	0	0	7	4
2		0	0	0	0	6	0	0	0	6	0
3		0	10	0	0	0	4	0	0	0	14
4		0	2	0	0	0	0	0	0	0	2
5		0	4	0	0	0	0	0	0	0	4
6		0	4	0	0	0	0	0	0	0	4
7		0	7	0	0	0	0	0	0	0	7
8		0	10	0	0	0	1	0	0	0	11
9		0	10	0	0	0	4	0	0	0	14
10		0	0	0	0	0	9	0	0	0	9
11		0	0	0	0	1	3	0	0	1	3
12		0	5	0	0	0	1	0	0	0	6
13		0	5	0	0	0	3	0	0	0	8
14		1	15	0	0	0	2	0	0	1	17
15		0	5	0	0	0	0	0	0	0	5
16		1	10	0	0	0	2	0	0	1	12
17		1	15	0	0	0	2	0	0	1	17
18		0	3	0	0	0	0	0	0	0	3
19		0	2	0	0	0	0	0	0	0	2
20		0	4	0	0	0	0	0	0	0	4
21		0	5	0	0	0	3	0	0	0	8
22		0	5	0	0	0	2	0	0	0	7
23		0	5	0	0	0	1	0	0	0	6

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
24		0	5	0	0	0	1	0	0	0	6
25		0	6	0	0	0	2	0	0	0	8
26		0	5	0	0	0	0	0	0	0	5
27		0	5	0	0	0	2	0	0	0	7
28		0	4	0	0	0	0	0	0	0	4
29		0	5	0	0	0	0	0	0	0	5
30		0	4	0	0	0	0	0	0	0	4
31		0	5	0	0	0	2	0	0	0	7
32		0	4	0	0	0	0	0	0	0	4
33		0	9	0	0	0	1	0	0	0	10
34		0	6	0	0	0	2	0	0	0	8
35		0	15	0	0	0	6	0	0	1	1
36		0	8	0	0	0	0	0	0	0	8
37		0	0	0	0	1	1	0	0	1	1
38		0	10	0	0	0	2	0	0	0	12
39		0	4	0	0	0	1	0	0	0	5
40		1	0	0	0	2	2	0	0	3	2
	Sub-Total (F)	15	1	7	4	12	19	0	0	35	4

G. Reservoir Impounding (AJK)

1		1	0	0	0	0	14	0	0	1	14
2		1	10	0	0	0	5	0	0	1	15
3		1	12	0	0	0	5	0	0	1	17
4		0	0	0	19	0	0	0	0	0	19
5		0	18	0	0	0	4	0	0	1	2
6		2	0	0	0	0	1	0	0	2	1
7		2	0	0	0	0	10	0	0	2	10
8		13	0	0	0	0	19	0	0	13	19
9		2	0	0	0	0	4	0	0	2	4
10		7	0	0	0	2	5	0	0	9	5

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
11		0	12	0	0	0	0	0	0	0	12
12		1	0	0	0	0	18	0	0	1	18
13		0	12	0	0	0	0	0	0	0	12
14		10	0	0	0	2	1	0	0	12	1
15		8	0	0	0	1	1	0	0	9	1
16		9	0	0	0	1	9	0	0	10	9
17		1	0	0	0	0	18	0	0	1	18
18		1	0	0	0	0	2	0	0	1	2
19		1	15	0	0	0	4	0	0	1	19
20		7	0	0	0	0	12	0	0	7	12
21		2	0	0	0	0	14	0	0	2	14
22		1	0	0	0	0	8	0	0	1	8
23		3	0	0	0	0	4	0	0	3	4
24		5	0	0	0	0	4	0	0	5	4
25		2	0	0	0	1	3	0	0	3	3
26		4	0	0	0	1	1	0	0	5	1
27		0	0	0	12	0	0	0	0	0	12
28		0	0	0	11	0	0	0	0	0	11

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
29		1	0	0	0	0	16	0	0	1	16
30		0	0	0	0	0	0	0	1		1
31		2	0	0	0	0	3	0	0	2	3
32		0	0	0	16	0	0	0	0	0	16
33		2	0	0	0	0	14	0	0	2	14
34		4	0	0	0	0	1	0	0	4	1
35		1	0	0	0	0	6	0	0	1	6
36		1	0	0	0	0	0	0	0	1	0
37		0	17	0	0	0	0	0	0	0	17
38		0	3	0	0	0	0	0	0	0	3
39		2	0	0	0	0	2	0	0	2	2
40		8	0	0	0	0	3	0	0	8	3
41		0	4	0	0	0	0	0	0	0	4
42		1	10	0	0	0	10	0	0	2	0
43		0	10	0	0			0	0	0	10
44		0	10	0	0	0	0	0	0	0	10
45		3	0	0	9	3	0	0	0	6	9
46		0	0	2	19	0		0	0	2	19
47		2	6	0	0	0	2	0	0	2	8
48		0	0	0	0	0	15	0	0	0	15

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
49			0	3	8	0	0	0	0	3	8
50		1	3	0	0	0	0	0	0	1	3
51		0	0	0	0	1	10	0	0	1	10
52		1	5	0	0	0	4	0	0	1	9
53		0	10	0	0	0	0	0	0	0	10
54		2	5	0	0	0	5	0	0	2	10
55		0	10	0	0	0	0	0	0	0	10
56		1	0	0	0	0	5	0	0	1	5
57		3	10	0	0		3	0	0	3	13
58		0	15	0	0	0	3	0	0	0	18
59		1	15	0	0		5	0	0	2	0
60		1	0	0	0		4	0	0	1	4
61		4	10	0	0	0	4	0	0	4	14
62		1	15	0	0	0	5	0	0	2	0
63				0	0	7	15	0	0	7	15
64		0	0	0	0	2	2	0	0	2	2

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
65		1	10	0	0		3	0	0	1	13
66		1	10	0	0		2	0	0	1	12
67		0	0	0	0	2	7	0	0	2	7
68		0	0	0	0	1	3	0	0	1	3
69			0	0	0	4	2	0	0	4	2
70		10	0	0	0	0	18	0	0	10	18
71		6	0	0	0	1	0	0	0	7	0
72		3	15	0	0	0	7	0	0	4	2
73		0	17	0	0	0	0	0	0	0	17
74		0	13	0	0	0	7	0	0	1	0
75		8	0	0	0	3	15	0	4	11	19
76		2	0	0	0	0	3	0	0	2	3
77		2	10	0	0	0	6	0	0	2	16
78		3	0	0	0	0	18	0	0	3	18

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
79		1	0	0	0	0	14	0	0	1	14
80		0	0	0	0	3	4	0	0	3	4
81		0	0	0	0	2	5	0	0	2	5
82		9	0	0	0	7	3	0	0	16	3
83		0	14	0	0	0	0	0	0	0	14
84		2	0	0	0	0	11	0	0	2	11
85		0	0	0	0	0	0	0	10	0	10
86		0	0	0	0	0	10	0	0	0	10
87		6	0	0	0	1	0	0	0	7	0
88		2	15	0	0	0	6	0	0	3	1
89		2	0	0	0	0	9	0	0	2	9
90		0	10	0	0	0	0	0	0		10
91		3	15	0	0	0	0	0	0	3	15

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
92			5	0	0	0	0	0	0		5
93			0	0	0	0	9	0	0	0	9
94			5	0	0	0		0	0	0	5
95		2	10	0	0	0	3	0	0	2	13
96		2	10	0	0	0	5	0	0	2	15
97		0	0	0	0	6	11	0	0	6	11
98		0	0	8	7	0	0	0	0	8	7
99		0	0	0	0	1	2	0	0	1	2
100		0	0	8	0	10	12	0	0	18	12
101		0	0	0	0	2	11	0	0	2	11
102			0	2	0	8	8	0	0	10	8
103		0	0	0	1	0	0	0	0	0	1
104		0	0	0	1	0	0	0	0	0	1
105		0	0	0	1	0	0	0	0	0	1

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
106		0	0	0	1	0	0	0	0	0	1
107		0	0	0	1	0	0	0	0	0	1
108		0	0	0	1	0	0	0	0	0	1
109		0	0	0	1	0	0	0	0	0	1
110		0	0	0	1	0	0	0	0	0	1
111		0	0	0	1	0	0	0	0	0	1
112		0	0	0	1	0	0	0	0	0	1
113		1	0	0	0	3	19	0	0	4	19
114		1	5	0	0	0	4	0	0	1	9
115		1	10				10			2	0
116		1	0	0	0	0	1	0	0	1	1
117		1	0	0	0	0	2	0	0	1	2
118		1	0	0	0	0	4	0	0	1	4
119		0	10	0	0	0	0	0	0	0	10

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
120		6	0	0	0	0	12	0	0	6	12
121		0	15	0	0	0	0	0	0	0	15
122		3	0	0	0	0	9	0	0	3	9
123		6	0	0	0	0	19	0	0	6	19
124		0	15	0	0	0	0	0	0	0	15
125		0	10	0	0	0	2	0	0	0	12
126		0	12	0	0	0		0	0	0	12
127		0	10	0	0	0		0	0	0	10
128		0	0	0	0	0	15	0	0	0	15
129		0	0	0	0	0	10	0	0	0	10
130		0	0	0	0	3	10	0	0	3	10
Sub-Total (G)		236	3	28	11	109	14	0	14	375	3
H. Reservoir Impounding (Deedal) KP											
1		3	0	0	5	3	5	0	0	6	10

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
2		10	2	0	0	0	0	0	0	10	2
3		7	7	0	0	0	0	0	0	7	7
4		4	12	0	0	0	0	0	0	4	12
5		2	13	0	0	1	16	0	0	4	9
6		0	0	0	0	0	13	0	0	0	13
7		0	0	0	0	0	2	0	0	0	2
8		0	0	0	14	0	0	0	0	0	14
9		0	0	0	0	4	19	0	0	4	19
10		5	3	0	0	0	0	0	0	5	3
11		0	0	2	0	0	0	0	0	2	0
12		5	0	0	0	0	7	0	0	5	7
13		2	4	0	0	0	4	0	0	2	8
14		0	10	0	0	0	0	0	0	0	10
15		0	0	0	0	10	9	0	0	10	9
16		0	0	0	0	1	0	0	0	1	0

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
17		0	0	0	0	2	9	0	0	2	9
18		0	0	0	0	2	1	0	0	2	1
19		0	0	0	0	2	8	0	0	2	8
20		1	0	0	0	2	18	0	0	3	18
21		1	10	0	0	0	0	0	0	1	10
22		3	0	0	0	0	18	0	0	3	18
23		0	0	0	0	10	15	0	0	10	15
24		0	0	0	0	12	13	0	0	12	13
25		0	0	0	0	10	3	0	0	10	3
26		0	0	0	0	6	10	0	0	6	10
27		0	0	0	0	4	16	0	0	4	16
28		1	19	0	0			0	0	1	19
29		0	0	0	0	2	3	0	0	2	3
30		0	0	0	0	6	14	0	0	6	14

S.#	Name of Affected Persons	Land Acquisition (Kanal)									
		Farm Land		Riverbed		Wasteland		House Land		Total	
		Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla	Kanal	Marla
31		0	0	0	0	0	10	0	0	0	10
32		0	0	0	0	1	3	0	0	1	3
	Sub-Total (H)	48	0	2	19	88	16	0	0	139	15
	Grand Total	343	16	111	15	443	5.5	3	13	902	10.6

* 1 Ha = 10,000 m² = 2.471 Acre 1 Acre = 8 Kanal = 4047 m²

The total of land areas amounting to 902 kanal is sub-divided into land areas to be acquired in Muzaffarabad District (763 kanal) and in Abbottabad district (139 kanal).

Annex-11

Cost of Permanent Land Acquisition

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
A. Power House & Access Road (ALDA Village) AJK						
1		River Bed Farmland Wasteland	0 0 0.25	50,000 240,000 80,000	0 0 20,000	20,000
2		River Bed Farmland Wasteland	0 0 0.5	50,000 240,000 80,000	0 0 40,000	40,000
3		River Bed Farmland Wasteland	0 0 0.25	50,000 240,000 80,000	0 0 20,000	20,000
4		River Bed Farmland Wasteland	0 0 1.5	50,000 240,000 80,000	0 0 120,000	120,000
5		River Bed Farmland Wasteland	0 0 0.15	50,000 240,000 80,000	0 0 12,000	12,000
6		River Bed Farmland Wasteland	0 0 1.4	50,000 240,000 80,000	0 0 112,000	112,000
7		River Bed Farmland Wasteland	0 0 2.1	50,000 240,000 80,000	0 0 168,000	168,000
8		River Bed Farmland Wasteland	0.5 0 0	50,000 240,000 80,000	25,000 0 0	25,000
9		River Bed Farmland Wasteland	0.5 0 0	50,000 240,000 80,000	25,000 0 0	25,000
10		River Bed Farmland Wasteland	0.95 0 0	50,000 240,000 80,000	47,500 0 0	47,500
11		River Bed Farmland Wasteland	0 5 6.1	50,000 240,000 80,000	0 1,200,000 488,000	1,688,000
12		River Bed Farmland Wasteland	0 0 0.2	50,000 240,000 80,000	0 0 16,000	16,000
13		River Bed Farmland Wasteland	1.7 0 1	50,000 240,000 80,000	85,000 0 80,000	165,000
14		River Bed Farmland	0 0.5	50,000 240,000	0 120,000	120,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0	80,000	0	
15		River Bed	0.4	50,000	20,000	340,000
		Farmland	1	240,000	240,000	
		Wasteland	1	80,000	80,000	
16		River Bed	0.45	50,000	22,500	22,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
17		River Bed	1.05	50,000	52,500	612,500
		Farmland	2	240,000	480,000	
		Wasteland	1	80,000	80,000	
18		River Bed	0.5	50,000	25,000	25,000
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
19		River Bed	0	50,000	0	120,000
		Farmland	0.5	240,000	120,000	
		Wasteland	0	80,000	0	
20		River Bed	0	50,000	0	224,000
		Farmland	0.9	240,000	216,000	
		Wasteland	0.1	80,000	8,000	
21		River Bed	0	50,000	0	312,000
		Farmland	1.25	240,000	300,000	
		Wasteland	0.15	80,000	12,000	
22		River Bed	0	50,000	0	20,000
		Farmland	0	240,000	0	
		Wasteland	0.25	80,000	20,000	
23		River Bed	0	50,000	0	136,000
		Farmland	0.5	240,000	120,000	
		Wasteland	0.2	80,000	16,000	
24		River Bed	0	50,000	0	48,000
		Farmland	0.2	240,000	48,000	
		Wasteland	0	80,000	0	
25		River Bed	0	50,000	0	36,000
		Farmland	0.15	240,000	36,000	
		Wasteland	0	80,000	0	
26		River Bed	0	50,000	0	24,000
		Farmland	0.1	240,000	24,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0	80,000	0	
27		River Bed	0	50,000	0	
		Farmland	0	240,000	0	16,000
		Wasteland	0.2	80,000	16,000	
28		River Bed	0	50,000	0	
		Farmland	0	240,000	0	12,000
		Wasteland	0.15	80,000	12,000	
29		River Bed	0	50,000	0	
		Farmland	0	240,000	0	12,000
		Wasteland	0.15	80,000	12,000	
30		River Bed	0	50,000	0	
		Farmland	0	240,000	0	16,000
		Wasteland	0.2	80,000	16,000	
31		River Bed	0	50,000	0	
		Farmland	0	240,000	0	48,000
		Wasteland	0.6	80,000	48,000	
32		River Bed	0	50,000	0	
		Farmland	3.75	240,000	900,000	928,000
		Wasteland	0.35	80,000	28,000	
33		River Bed	0	50,000	0	
		Farmland	1.25	240,000	300,000	324,000
		Wasteland	0.3	80,000	24,000	
34		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
35		River Bed	0.45	50,000	22,500	
		Farmland	2	240,000	480,000	538,500
		Wasteland	0.45	80,000	36,000	
36		River Bed	1.4	50,000	70,000	
		Farmland	0	240,000	0	70,000
		Wasteland	0	80,000	0	
37		River Bed	1.65	50,000	82,500	
		Farmland	0	240,000	0	82,500
		Wasteland	0	80,000	0	
38		River Bed	0.55	50,000	27,500	
		Farmland	0	240,000	0	27,500
		Wasteland	0	80,000	0	
39		River Bed	3.75	50,000	187,500	
		Farmland	0	240,000	0	187,500
		Wasteland	0	80,000	0	
40		River Bed	0	50,000	0	
		Farmland	2.75	240,000	660,000	680,000
		Wasteland	0.25	80,000	20,000	
41		River Bed	0	50,000	0	368,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Farmland Wasteland	1.5 0.1	240,000 80,000	360,000 8,000	
42		River Bed Farmland Wasteland	0 1 0.2	50,000 240,000 80,000	0 240,000 16,000	256,000
43		River Bed Farmland Wasteland	0 0.5 0.05	50,000 240,000 80,000	0 120,000 4,000	124,000
44		River Bed Farmland Wasteland	0 0.75 0.1	50,000 240,000 80,000	0 180,000 8,000	188,000
45		River Bed Farmland Wasteland	0 0.45 0	50,000 240,000 80,000	0 108,000 0	108,000
46		River Bed Farmland Wasteland	0 0.5 0	50,000 240,000 80,000	0 120,000 0	120,000
47		River Bed Farmland Wasteland	0 2 0.35	50,000 240,000 80,000	0 480,000 28,000	508,000
48		River Bed Farmland Wasteland	0 0.75 0.05	50,000 240,000 80,000	0 180,000 4,000	184,000
49		River Bed Farmland Wasteland	0 0 0.25	50,000 240,000 80,000	0 0 20,000	20,000
50		River Bed Farmland Wasteland	0 1 0.4	50,000 240,000 80,000	0 240,000 32,000	272,000
51		River Bed Farmland Wasteland	0 0 8.85	50,000 240,000 80,000	0 0 708,000	708,000
52		River Bed Farmland Wasteland	0 0 0.15	50,000 240,000 80,000	0 0 12,000	12,000
53		River Bed Farmland Wasteland	0 0 0.25	50,000 240,000 80,000	0 0 20,000	20,000
54		River Bed Farmland Wasteland	0 0 0.45	50,000 240,000 80,000	0 0 36,000	36,000
55		River Bed Farmland Wasteland	0 0 15.8	50,000 240,000 80,000	0 0 1,264,000	1,264,000
Sub-Total (A)			90.5			11,748,500

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
B. Surge Tank & Access Road to Surge Tank (ALDA Village) AJK						
56		River Bed	0	50,000	0	6,000,000
		Farmland	0	240,000	0	
		Wasteland	75	80,000	6,000,000	
Sub-Total (B)			75			6,000,000
C. Colony of Expatriate construction staff, Switchyard, labour camp, access road, bridge, batching plant						
D. Weir Site Construction Area & Sandtrap Permanent						
1		River Bed	0	50,000	0	844,000
		Farmland	0	240,000	0	
		Wasteland	10.55	80,000	844,000	
2		River Bed	7.95	50,000	397,500	397,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
3		River Bed	0	50,000	0	3,044,000
		Farmland	0	240,000	0	
		Wasteland	38.05	80,000	3,044,000	
4		River Bed	0	50,000	0	620,000
		Farmland	0	240,000	0	
		Wasteland	7.75	80,000	620,000	
Sub-Total (D)			64.3			4,905,500
E. Access Road (Patrind/Tarcheela) AJK						
Sub-Total (E)						
F. Construction Camp (Patrind/Tarcheela) AJK						
Sub-Total (F)						
G. Reservoir Impounding (AJK)						
1		River Bed	0	50,000	0	296,000
		Farmland	1	240,000	240,000	
		Wasteland	0.7	80,000	56,000	
2		River Bed	0	50,000	0	380,000
		Farmland	1.5	240,000	360,000	
		Wasteland	0.25	80,000	20,000	
3		River Bed	0	50,000	0	404,000
		Farmland	1.6	240,000	384,000	
		Wasteland	0.25	80,000	20,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
4		River Bed Farmland Wasteland	0.95 0 0	50,000 240,000 80,000	47,500 0 0	47,500
5		River Bed Farmland Wasteland	0 0.9 0.2	50,000 240,000 80,000	0 216,000 16,000	232,000
6		River Bed Farmland Wasteland	0 2 0.05	50,000 240,000 80,000	0 480,000 4,000	484,000
7		River Bed Farmland Wasteland	0 2 0.5	50,000 240,000 80,000	0 480,000 40,000	520,000
8		River Bed Farmland Wasteland	0 13 0.95	50,000 240,000 80,000	0 3,120,000 76,000	3,196,000
9		River Bed Farmland Wasteland	0 2 0.2	50,000 240,000 80,000	0 480,000 16,000	496,000
10		River Bed Farmland Wasteland	0 7 2.25	50,000 240,000 80,000	0 1,680,000 180,000	1,860,000
11		River Bed Farmland Wasteland	0 0.6 0	50,000 240,000 80,000	0 144,000 0	144,000
12		River Bed Farmland Wasteland	0 1 0.9	50,000 240,000 80,000	0 240,000 72,000	312,000
13		River Bed Farmland Wasteland	0 0.6 0	50,000 240,000 80,000	0 144,000 0	144,000
14		River Bed Farmland Wasteland	0 10 2.05	50,000 240,000 80,000	0 2,400,000 164,000	2,564,000
15		River Bed Farmland Wasteland	0 8 1.05	50,000 240,000 80,000	0 1,920,000 84,000	2,004,000
16		River Bed Farmland Wasteland	0 9 1.45	50,000 240,000 80,000	0 2,160,000 116,000	2,276,000
17		River Bed	0	50,000	0	312,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Farmland	1	240,000	240,000	
		Wasteland	0.9	80,000	72,000	
18		River Bed	0	50,000	0	
		Farmland	1	240,000	240,000	248,000
		Wasteland	0.1	80,000	8,000	
19		River Bed	0	50,000	0	
		Farmland	1.75	240,000	420,000	436,000
		Wasteland	0.2	80,000	16,000	
20		River Bed	0	50,000	0	
		Farmland	7	240,000	1,680,000	1,728,000
		Wasteland	0.6	80,000	48,000	
21		River Bed	0	50,000	0	
		Farmland	2	240,000	480,000	536,000
		Wasteland	0.7	80,000	56,000	
22		River Bed	0	50,000	0	
		Farmland	1	240,000	240,000	272,000
		Wasteland	0.4	80,000	32,000	
23		River Bed	0	50,000	0	
		Farmland	3	240,000	720,000	736,000
		Wasteland	0.2	80,000	16,000	
24		River Bed	0	50,000	0	
		Farmland	5	240,000	1,200,000	1,216,000
		Wasteland	0.2	80,000	16,000	
25		River Bed	0	50,000	0	
		Farmland	2	240,000	480,000	572,000
		Wasteland	1.15	80,000	92,000	
26		River Bed	0	50,000	0	
		Farmland	4	240,000	960,000	1,044,000
		Wasteland	1.05	80,000	84,000	
27		River Bed	0.6	50,000	30,000	
		Farmland	0	240,000	0	30,000
		Wasteland	0	80,000	0	
28		River Bed	0.55	50,000	27,500	
		Farmland	0	240,000	0	27,500
		Wasteland	0	80,000	0	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
29		River Bed	0	50,000	0	304,000
		Farmland	1	240,000	240,000	
		Wasteland	0.8	80,000	64,000	
30		River Bed	0	50,000	0	4,000
		Farmland	0	240,000	0	
		Wasteland	0.05	80,000	4,000	
31		River Bed	0	50,000	0	492,000
		Farmland	2	240,000	480,000	
		Wasteland	0.15	80,000	12,000	
32		River Bed	0.8	50,000	40,000	40,000
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
33		River Bed	0	50,000	0	536,000
		Farmland	2	240,000	480,000	
		Wasteland	0.7	80,000	56,000	
34		River Bed	0	50,000	0	964,000
		Farmland	4	240,000	960,000	
		Wasteland	0.05	80,000	4,000	
35		River Bed	0	50,000	0	264,000
		Farmland	1	240,000	240,000	
		Wasteland	0.3	80,000	24,000	
36		River Bed	0	50,000	0	240,000
		Farmland	1	240,000	240,000	
		Wasteland	0	80,000	0	
37		River Bed	0	50,000	0	204,000
		Farmland	0.85	240,000	204,000	
		Wasteland	0	80,000	0	
38		River Bed	0	50,000	0	36,000
		Farmland	0.15	240,000	36,000	
		Wasteland	0	80,000	0	
39		River Bed	0	50,000	0	488,000
		Farmland	2	240,000	480,000	
		Wasteland	0.1	80,000	8,000	
40		River Bed	0	50,000	0	1,932,000
		Farmland	8	240,000	1,920,000	
		Wasteland	0.15	80,000	12,000	
41		River Bed	0	50,000	0	48,000
		Farmland	0.2	240,000	48,000	
		Wasteland	0	80,000	0	
42		River Bed	0	50,000	0	400,000
		Farmland	1.5	240,000	360,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0.5	80,000	40,000	
43		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
44		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
45		River Bed	0.45	50,000	22,500	
		Farmland	3	240,000	720,000	982,500
		Wasteland	3	80,000	240,000	
46		River Bed	2.95	50,000	147,500	
		Farmland	0	240,000	0	147,500
		Wasteland	0	80,000	0	
47		River Bed	0	50,000	0	
		Farmland	2.3	240,000	552,000	560,000
		Wasteland	0.1	80,000	8,000	
48		River Bed	0	50,000	0	
		Farmland	0	240,000	0	60,000
		Wasteland	0.75	80,000	60,000	
49		River Bed	3.4	50,000	170,000	
		Farmland	0	240,000	0	170,000
		Wasteland	0	80,000	0	
50		River Bed	0	50,000	0	
		Farmland	1.15	240,000	276,000	276,000
		Wasteland	0	80,000	0	
51		River Bed	0	50,000	0	
		Farmland	0	240,000	0	120,000
		Wasteland	1.5	80,000	120,000	
52		River Bed	0	50,000	0	
		Farmland	1.25	240,000	300,000	316,000
		Wasteland	0.2	80,000	16,000	
53		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
54		River Bed	0	50,000	0	
		Farmland	2.25	240,000	540,000	560,000
		Wasteland	0.25	80,000	20,000	
55		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
56		River Bed	0	50,000	0	260,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Farmland Wasteland	1 0.25	240,000 80,000	240,000 20,000	
57		River Bed Farmland Wasteland	0 3.5 0	50,000 240,000 80,000	0 840,000 0	840,000
58		River Bed Farmland Wasteland	0 0.75 0.15	50,000 240,000 80,000	0 180,000 12,000	192,000
59		River Bed Farmland Wasteland	0 1.75 0.25	50,000 240,000 80,000	0 420,000 20,000	440,000
60		River Bed Farmland Wasteland	0 1 0.2	50,000 240,000 80,000	0 240,000 16,000	256,000
61		River Bed Farmland Wasteland	0 4.5 0.2	50,000 240,000 80,000	0 1,080,000 16,000	1,096,000
62		River Bed Farmland Wasteland	0 1.75 0.25	50,000 240,000 80,000	0 420,000 20,000	440,000
63		River Bed Farmland Wasteland	0 0 7.75	50,000 240,000 80,000	0 0 620,000	620,000
64		River Bed Farmland Wasteland	0 0 2.1	50,000 240,000 80,000	0 0 168,000	168,000
65		River Bed Farmland Wasteland	0 1.5 0.15	50,000 240,000 80,000	0 360,000 12,000	372,000
66		River Bed Farmland Wasteland	0 1.5 0.1	50,000 240,000 80,000	0 360,000 8,000	368,000
67		River Bed Farmland Wasteland	0 0 2.35	50,000 240,000 80,000	0 0 188,000	188,000
68		River Bed	0	50,000	0	92,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Farmland	0	240,000	0	
		Wasteland	1.15	80,000	92,000	
69		River Bed	0	50,000	0	
		Farmland	0	240,000	0	328,000
		Wasteland	4.1	80,000	328,000	
70		River Bed	0	50,000	0	
		Farmland	10	240,000	2,400,000	2,472,000
		Wasteland	0.9	80,000	72,000	
71		River Bed	0	50,000	0	
		Farmland	6	240,000	1,440,000	1,520,000
		Wasteland	1	80,000	80,000	
72		River Bed	0	50,000	0	
		Farmland	3.75	240,000	900,000	928,000
		Wasteland	0.35	80,000	28,000	
73		River Bed	0	50,000	0	
		Farmland	0.85	240,000	204,000	204,000
		Wasteland	0	80,000	0	
74		River Bed	0	50,000	0	
		Farmland	0.65	240,000	156,000	184,000
		Wasteland	0.35	80,000	28,000	
75		River Bed	0	50,000	0	
		Farmland	8	240,000	1,920,000	2,236,000
		Wasteland	3.95	80,000	316,000	
76		River Bed	0	50,000	0	
		Farmland	2	240,000	480,000	492,000
		Wasteland	0.15	80,000	12,000	
77		River Bed	0	50,000	0	
		Farmland	2.5	240,000	600,000	624,000
		Wasteland	0.3	80,000	24,000	
78		River Bed	0	50,000	0	792,000
		Farmland	3	240,000	720,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0.9	80,000	72,000	
79		River Bed	0	50,000	0	
		Farmland	1	240,000	240,000	296,000
		Wasteland	0.7	80,000	56,000	
80		River Bed	0	50,000	0	
		Farmland	0	240,000	0	256,000
		Wasteland	3.20	80,000	256,000	
81		River Bed	0	50,000	0	
		Farmland	0	240,000	0	180,000
		Wasteland	2.25	80,000	180,000	
82		River Bed	0	50,000	0	
		Farmland	9	240,000	2,160,000	2,732,000
		Wasteland	7.15	80,000	572,000	
83		River Bed	0	50,000	0	
		Farmland	0.70	240,000	168,000	168,000
		Wasteland	0	80,000	0	
84		River Bed	0	50,000	0	
		Farmland	2	240,000	480,000	524,000
		Wasteland	0.55	80,000	44,000	
85		River Bed	0	50,000	0	
		Farmland	0	240,000	0	40,000
		Wasteland	0.5	80,000	40,000	
86		River Bed	0	50,000	0	
		Farmland	0	240,000	0	40,000
		Wasteland	0.5	80,000	40,000	
87		River Bed	0	50,000	0	
		Farmland	6	240,000	1,440,000	1,520,000
		Wasteland	1	80,000	80,000	
88		River Bed	0	50,000	0	
		Farmland	2.75	240,000	660,000	684,000
		Wasteland	0.3	80,000	24,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
89		River Bed Farmland Wasteland	0 2 0.45	50,000 240,000 80,000	0 480,000 36,000	516,000
90		River Bed Farmland Wasteland	0 0.5 0	50,000 240,000 80,000	0 120,000 0	120,000
91		River Bed Farmland Wasteland	0 3.75 0	50,000 240,000 80,000	0 900,000 0	900,000
92		River Bed Farmland Wasteland	0 0.25 0	50,000 240,000 80,000	0 60,000 0	60,000
93		River Bed Farmland Wasteland	0 0 0.45	50,000 240,000 80,000	0 0 36,000	36,000
94		River Bed Farmland Wasteland	0 0.25 0	50,000 240,000 80,000	0 60,000 0	60,000
95		River Bed Farmland Wasteland	0 2.5 0.15	50,000 240,000 80,000	0 600,000 12,000	612,000
96		River Bed Farmland Wasteland	0 2.5 0.25	50,000 240,000 80,000	0 600,000 20,000	620,000
97		River Bed Farmland Wasteland	0 0 6.55	50,000 240,000 80,000	0 0 524,000	524,000
98		River Bed Farmland Wasteland	8.35 0 0	50,000 240,000 80,000	417,500 0 0	417,500
99		River Bed Farmland Wasteland	0 0 1.1	50,000 240,000 80,000	0 0 88,000	88,000
100		River Bed Farmland	8 0	50,000 240,000	400,000 0	1,248,000

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	10.6	80,000	848,000	
101		River Bed	0	50,000	0	204,000
		Farmland	0	240,000	0	
		Wasteland	2.55	80,000	204,000	
102		River Bed	2	50,000	100,000	772,000
		Farmland	0	240,000	0	
		Wasteland	8.4	80,000	672,000	
103		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
104		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
105		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
106		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
107		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
108		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
109		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
110		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
111		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	
112		River Bed	0.05	50,000	2,500	2,500
		Farmland	0	240,000	0	
		Wasteland	0	80,000	0	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
113		River Bed	0	50,000	0	556,000
		Farmland	1	240,000	240,000	
		Wasteland	3.95	80,000	316,000	
114		River Bed	0	50,000	0	316,000
		Farmland	1.25	240,000	300,000	
		Wasteland	0.2	80,000	16,000	
115		River Bed	0	50,000	0	400,000
		Farmland	1.5	240,000	360,000	
		Wasteland	0.5	80,000	40,000	
116		River Bed	0	50,000	0	244,000
		Farmland	1	240,000	240,000	
		Wasteland	0.05	80,000	4,000	
117		River Bed	0	50,000	0	248,000
		Farmland	1	240,000	240,000	
		Wasteland	0.1	80,000	8,000	
118		River Bed	0	50,000	0	256,000
		Farmland	1	240,000	240,000	
		Wasteland	0.2	80,000	16,000	
119		River Bed	0	50,000	0	120,000
		Farmland	0.5	240,000	120,000	
		Wasteland	0	80,000	0	
120		River Bed	0	50,000	0	1,488,000
		Farmland	6	240,000	1,440,000	
		Wasteland	0.6	80,000	48,000	
121		River Bed	0.75	50,000	0	180,000
		Farmland		240,000	180,000	
		Wasteland		80,000	0	
122		River Bed	0	50,000	0	756,000
		Farmland	3	240,000	720,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0.45	80,000	36,000	
123		River Bed	0	50,000	0	
		Farmland	6	240,000	1,440,000	1,516,000
		Wasteland	0.95	80,000	76,000	
124		River Bed	0	50,000	0	
		Farmland	0.75	240,000	180,000	180,000
		Wasteland	0	80,000	0	
125		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	128,000
		Wasteland	0.1	80,000	8,000	
126		River Bed	0	50,000	0	
		Farmland	0.6	240,000	144,000	144,000
		Wasteland	0	80,000	0	
127		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
128		River Bed	0	50,000	0	
		Farmland	0	240,000	0	60,000
		Wasteland	0.75	80,000	60,000	
129		River Bed	0	50,000	0	
		Farmland	0	240,000	0	40,000
		Wasteland	0.5	80,000	40,000	
130		River Bed	0	50,000	0	
		Farmland	0	240,000	0	280,000
		Wasteland	3.5	80,000	280,000	
Sub-Total (G)			375			66,927,500

Total AJK		604.75				89,581,500
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H. Reservoir Impounding (Deedal) KP						
1		River Bed	0.25	50,000	12,500	
		Farmland	3	240,000	720,000	992,500
		Wasteland	3.25	80,000	260,000	
2		River Bed	0	50,000	0	
		Farmland	10.1	240,000	2,424,000	2,424,000
		Wasteland	0	80,000	0	
3		River Bed	0	50,000	0	
		Farmland	7.35	240,000	1,764,000	1,764,000
		Wasteland	0	80,000	0	
4	Jane Widow	River Bed	0	50,000	0	1,104,000
		Farmland	4.6	240,000	1,104,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
		Wasteland	0	80,000	0	
5		River Bed	0	50,000	0	
		Farmland	2.65	240,000	636,000	780,000
		Wasteland	1.8	80,000	144,000	
6		River Bed	0	50,000	0	
		Farmland	0	240,000	0	52,000
		Wasteland	0.65	80,000	52,000	
7		River Bed	0	50,000	0	
		Farmland	0	240,000	0	8,000
		Wasteland	0.1	80,000	8,000	
8		River Bed	0.7	50,000	35,000	
		Farmland	0	240,000	0	35,000
		Wasteland	0	80,000	0	
9		River Bed	0	50,000	0	
		Farmland	0	240,000	0	396,000
		Wasteland	4.95	80,000	396,000	
10		River Bed	0	50,000	0	
		Farmland	5.15	240,000	1,236,000	1,236,000
		Wasteland	0	80,000	0	
11		River Bed	2	50,000	100,000	
		Farmland	0	240,000	0	100,000
		Wasteland	0	80,000	0	
12		River Bed	0	50,000	0	
		Farmland	5	240,000	1,200,000	1,228,000
		Wasteland	0.35	80,000	28,000	
13		River Bed	0	50,000	0	
		Farmland	2.2	240,000	528,000	544,000
		Wasteland	0.2	80,000	16,000	
14		River Bed	0	50,000	0	
		Farmland	0.5	240,000	120,000	120,000
		Wasteland	0	80,000	0	
15		River Bed	0	50,000	0	
		Farmland	0	240,000	0	836,000
		Wasteland	10.45	80,000	836,000	
16		River Bed	0	50,000	0	
		Farmland	0	240,000	0	80,000
		Wasteland	1	80,000	80,000	
17		River Bed	0	50,000	0	
		Farmland	0	240,000	0	196,000
		Wasteland	2.45	80,000	196,000	
18		River Bed	0	50,000	0	
		Farmland	0	240,000	0	164,000
		Wasteland	2.05	80,000	164,000	

S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
19		River Bed Farmland Wasteland	0 0 2.4	50,000 240,000 80,000	0 0 192,000	192,000
20		River Bed Farmland Wasteland	0 1 2.9	50,000 240,000 80,000	0 240,000 232,000	472,000
21		River Bed Farmland Wasteland	0 1.5 0	50,000 240,000 80,000	0 360,000 0	360,000
22		River Bed Farmland Wasteland	0 3 0.9	50,000 240,000 80,000	0 720,000 72,000	792,000
23		River Bed Farmland Wasteland	0 0 10.75	50,000 240,000 80,000	0 0 860,000	860,000
24		River Bed Farmland Wasteland	0 0 12.65	50,000 240,000 80,000	0 0 1,012,000	1,012,000
25		River Bed Farmland Wasteland	0 0 10.15	50,000 240,000 80,000	0 0 812,000	812,000
26		River Bed Farmland Wasteland	0 0 6.5	50,000 240,000 80,000	0 0 520,000	520,000
27		River Bed Farmland Wasteland	0 0 4.8	50,000 240,000 80,000	0 0 384,000	384,000
28		River Bed Farmland Wasteland	0 1.95 0	50,000 240,000 80,000	0 468,000 0	468,000
29		River Bed Farmland Wasteland	0 0 2.15	50,000 240,000 80,000	0 0 172,000	172,000
30		River Bed Farmland Wasteland	0 0 6.7	50,000 240,000 80,000	0 0 536,000	536,000
31		River Bed Farmland Wasteland	0 0 0.5	50,000 240,000 80,000	0 0 40,000	40,000
32		River Bed Farmland Wasteland	0 0 1.15	50,000 240,000 80,000	0 0 92,000	92,000
Sub-Total (H)			139.75			18,771,500

Total KP		139.75			18,771,500
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S.#	Name of Affected Persons	Type of Land	Affected Area Kanal	Rate per Kanal	Estimated Cost	Total
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Grand Total (AJK+KP)			745			108,353,000
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* 1 Ha = 10,000 m² = 2.471 Acre = 8 Kanal