

MEPCO 6th STG and ELR Project (2006-07)
Resettlement Plan

Ref.: FRT06V01MES-RP

September 2006

Prepared for
Multan Electric Power Company Limited (MEPCO)

Élan Partners (Pvt.) Ltd.

Suite 4, 1st Floor, 20-B Blair Center, G-8 Markaz, Islamabad

Tel.: +92 (51) 225 3696-97 • Fax: +92 (51) 225 3698 • Email: mail@elan.com.pk

Report disclaimer:

Élan Partners has prepared this document in accordance with the instructions of **Multan Electric Power Company Limited (MEPCO)** for its sole and specific use. Any other persons, companies, or institutions who use any information contained herein do so at their own risk.

Executive Summary

The Multan Electric Power Company (MEPCO) is planning to undertake the 6th Secondary Transmission and Grid (STG) and Energy Loss Reduction (ELR) project in various parts of its territory. MEPCO is seeking financing from the World Bank (WB) for a portion of this 5-year project. In line with the prevailing legislation in the country, and WB safeguard policies, an environmental and social assessment (ESA) of the project has been carried out.

In order to address the resettlement issues identified during the ESA study, a Resettlement Plan (RP) has also been developed. This document presents the RP for the proposed project.

Policy and Legal Framework

The RP has been developed in accordance with the WB Operational Policy 4.12 (OP 4.12), which specifies the procedure that needs to be followed to address the involuntary resettlement the Bank-financed project would cause.

In addition, the WB OP 4.01 requires that environmental and social assessment be carried out before commencing projects such as the 6th STG and ELR.

The Pakistan Environmental Protection Act, 1997 (PEPA 1997) requires the proponents of every development project in the country to conduct an environmental¹ assessment and submit its report to the relevant environmental protection agency.

Project Overview

The overall objective of the MEPCO's 6th STG and ELR project is to help increase the efficiency, reliability, and quality of its electricity supply. The project seeks to decrease technical as well as commercial losses, increase electricity availability, and improve the voltage profile within the MEPCO's electricity network.

In its total span of 5 years, the 6th STG project envisages the establishment of 20 new grid stations, conversion of 8 grid stations, augmentation of 24 grid stations, and extension of 36 grid stations, as well as the laying of 666 km of transmission lines. Similarly, the ELR project activities during the total span of 5 years include installation of 416 km of new high-tension (HT) lines, re-conductoring of 416 km HT lines, installation of 1,563 distribution transformers, installation of 700 km of new low-tension (LT) lines and re-conductoring of 407 km LT lines.

The ESA and RP address the project components that will be undertaken during the Year 2006-07. The STG works for this year include the establishment of 5 new grid stations, in addition to the conversion of 3, extension of 12, and augmentation of 5 existing grid stations. A total of about 272 km of new transmission lines will also be added to the existing MEPCO system. The ELR works for the Year 2006-07 include installation of

¹ 'Environment' mentioned here includes physical, biological, social and human environment, as defined in the Act.

65 km of new HT lines, re-conductoring of 77 km HT lines, installation of 250 distribution transformers, installation of 43 km of new LT lines and re-conductoring of 72 km LT lines.

Stakeholder Consultation

Stakeholder consultations were carried out as part of the ESA study. At the outset, stakeholder analysis was carried out to identify and characterize the project stakeholders. The consultations were held with the stakeholders thus identified, which included the institutional as well as the grassroots stakeholders. The main objectives of the consultations were to apprise the stakeholders of the proposed project activities and to obtain their views, concerns, and recommendations so that these could be incorporated into the project design in order to enhance the environmental and social performance of the project.

Key Socioeconomic Issues

The key socioeconomic issues identified during the ESA study include the following:

- Involuntary resettlement issues
- Damage to crops
- Safety hazards and public health concerns
- Aesthetic value
- Blocked access routes
- Noise and vibration
- Damage to infrastructure
- Gender issues
- Social issues, and
- Impacts on sites of archeological, historical, cultural or religious significance.

The ESA has recommended mitigation measures to minimize if not completely eliminate the above concerns associated with the project.

Resettlement Plan

The ESA recorded the number of project affectees to be more than 200 hence the present RP has been developed in keeping with OP 4.12. The RP addresses the involuntary resettlement issues likely to arise during the proposed project. The RP provides an entitlement framework, implementation procedure, institutional arrangement, monitoring requirements and grievance redressal mechanism. The key aspects of the Plan are briefly discussed below.

Guiding Principles

The basic resettlement principles and guidelines include the following:

- The PAPs are defined as those who stand to lose land, houses, structures, trees, crops, businesses, income, livelihood or access to assets/livelihood as a consequence of the proposed project activities.

- All PAPs are equally eligible for compensation and rehabilitation assistance, irrespective of land ownership status, to ensure that those affected by the project will be at least as well off, if not better off than they would have been without the Project.
- Absence of title will not be a bar for PAPs to receive compensation and rehab assistance except for compensation for land.
- The compensation packages will reflect replacement costs for all losses (such as lands, crops, trees, structures, businesses, income, etc.).
- PAPs will be systematically informed and consulted about the project, and RP will be disclosed and made available to the affected persons and communities.

Entitlement Framework

The entitlement framework defines the entitled persons and entitlement policy for the proposed project. The framework takes into account loss of agricultural land; loss of residential, commercial or institutional land; loss of residential, commercial or institutional structure; loss of standing crops or trees; and loss of public infrastructure.

For the legal title holders, customary or usufruct rights holders, cash compensation of affected land would be paid on the basis of market value of the acquired land, in accordance with the LAA (1894). The tenants and sharecroppers will be compensated for the un-expired duration of the lease. The vulnerable encroachers or squatters will be compensated for affected structure at the replacement cost.

The owners of the affected structure, with or without legal title, will be entitled to cash compensation at the replacement value (salvage value of the structure will not be considered).

The affected cultivators will be entitled to cash compensation for the damaged crops calculated on the basis of market prices. The owners of the affected trees, with or without land title, will be paid cash compensation, on the basis of market value of the trees according to the type, age, size and productivity of trees

In case of the loss of any common resources or facilities, the project will replace or restore the affected facility or resource, in consultation with the affected community.

The project will pay cash compensation to the relevant agency based upon the replacement value of the affected infrastructure. Alternatively, the project will replace or restore the damaged infrastructure in the pre-project condition or better, in consultation with the concerned agency.

The project will pay cash compensation for the replacement cost of the religious sites, such as mosques. Alternatively, the project will construct the religious site, in consultation with the affected community. Project will also pay cash compensation for the relocation of graves.

Institutional and Implementation Arrangements

At the corporate level, MEPCO will establish an Environmental and Social Cell, in order to manage the environmental as well as social issues being faced by the Company during its entire operation.

The Environmental and Social Inspectors will be appointed at the proposed project sites, in order to ensure effective implementation of the RP and EMP, as well as complying with Company's other social/environmental obligations. A *Tesildar* (Land Officer) and a *Patwari* (Land Revenue Clerk) will also be appointed at the project sites, for implementing the land/assets compensation.

A communication and documentation system will be established at the project sites.

Grievance Redressal Mechanism

An attempt has been made while developing the RP, to identify all potential impacts of the proposed project. However during the project implementation, the stakeholders may still have some grievances with respect to the project activities, their impacts, compensation and other mitigation measures. To address this eventuality, the Grievance Redressal Mechanism (GRM) has been devised. The main objective of the GRM will be to provide a mechanism to mediate conflict and cut down on lengthy litigation, which often delays the infrastructure projects such as the 6th STG.

Under the GRM, the ESI will maintain the Social Complaint Register (SCR) at the project sites to document all complaints received from the local communities. The information recorded in the Register will include date of the complaint, particulars of the complainant, description of the grievance, actions to be taken, the person responsible to take the action, follow up requirements and the target date for the implementation of the mitigation measure. The register will also record the actual measures taken to mitigate these concerns.

Monitoring Requirements

The key objectives of the RP monitoring system are to ensure implementation of the RP procedures; and to ensure the effectiveness of the RP in minimizing the project's impacts related to involuntary resettlement.

In order to achieve the above objectives, three types of monitoring have been proposed for the project. These include the Compliance Monitoring, Effects Monitoring and External Monitoring. The first two of these will be implemented by the MEPCO site staff, while for the third type of monitoring, ie, External Monitoring, an independent consultant will be engaged by MEPCO.

A set of monitoring indicators have also been identified, which will be used during the above-mentioned monitoring systems.

Resettlement Budget

The cost of RP implementation is included in the overall environmental and socioeconomic management budget of the proposed project. The total amount of this budget is about Rs. 16 million, of which about Rs. 9.6 million is for the crop compensation.

Acronyms

AEB	Area Electricity Board
DC	Deputy Commissioner
EA	Environmental assessment
EDO	Executive District Officer
EIA	Environmental Impact Assessment
ELR	Energy loss reduction
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ESA	Environmental and Social Assessment
ESC	Environmental and Social Cell
ESI	Environmental and Social Inspector
ESM	Environmental and Social Monitor
GRM	Grievance Redressal Mechanism
GSC	Grid Station Construction (Department)
GSO	Grid Station Operation (Department)
GS	Grid Station
HSE	Health safety and environment
HT	High tension
IEE	Initial Environmental Examination
IUCN	International Union for Conservation of Nature
KESC	Karachi Electric Supply Company
KV	Kilo volts
KWh	Kilo watt hour
LAA	Land Acquisition Act (of 1894)
LT	Low tension
MEPCO	Multan Electric Power Company
MVA	Mega volt amperes
M&E	Monitoring and Evaluation
NGO	Non Governmental Organization
NTDC	National Transmission and Dispatch Company
OP	Operational Policy
O&M	Operation and Maintenance
PAPs	Project affected persons
PCB	Poly Chlorinated Biphenyl
PD	Project Director
PEPA	Pakistan Environmental Protection Act
PM	Project Manager

RE	Resident Engineer
RoW	Right of Way
RP	Resettlement Plan
SCR	Social Complaint Register
STG	Secondary transmission and grid
TL	Transmission line
ToR	Terms of Reference
WAPDA	Water and Power Development Authority
WB	World Bank
WWF	World Wide Fund for Nature

Contents

Executive Summary	iii
1 Introduction	1-1
1.1 Project Proponent	1-1
1.2 Project Background and Justification	1-1
1.3 Project Overview	1-2
1.4 ESA Study and Resettlement Plan	1-3
1.5 Document Structure	1-6
2 Policy and Legal Framework.....	2-1
2.1 The World Bank Operational Policies	2-1
2.2 National Laws and Regulations	2-4
3 Description of the Project	3-1
3.1 Project Objectives	3-1
3.2 Project Components	3-1
3.3 Project Implementation.....	3-3
3.4 Operation and Maintenance Activities	3-5
4 Stakeholder Consultations.....	4-1
4.1 Objectives	4-1
4.2 Participation Framework	4-1
4.3 Stakeholder Analysis	4-1
4.4 Consultation Process	4-3
4.5 Consultations with Institutional Stakeholders	4-3
4.6 Grass Root Stakeholders Consultations	4-4
5 Key Socioeconomic and Resettlement Issues	5-1
5.1 Project Area Profile	5-1
5.2 Socioeconomic Impacts during Design Phase	5-1
5.3 Socioeconomic Impacts and Mitigation during Construction Phase.....	5-3
5.4 Affected Persons and Assets.....	5-6
6 Entitlement Principles and Framework.....	6-1
6.1 Principles of Resettlement Plan.....	6-1
6.2 Entitlement Framework for Proposed Project.....	6-2

7	Institutional and Implementation Arrangements.....	7-1
7.1	Organizational Structure, Roles and Responsibilities	7-1
7.2	RP Implementation Procedure	7-3
7.3	Communication and Documentation.....	7-4
7.4	Grievance Redressal Mechanism	7-5
7.5	Environmental and Social Trainings	7-7
7.6	Public Disclosure	7-7
8	Monitoring and Evaluation	8-1
8.1	Social Monitoring Framework	8-1
8.2	Monitoring Plan	8-1
8.3	Monitoring Indicators.....	8-3
8.4	Monitoring Reports	8-4
9	Resettlement Budget	9-1

Appendix

Appendix A:	Details of the Crop Compensation (Details of affected cultivated land under the transmission lines, estimates of crop compensation and list of affected land owners)
--------------------	---

List of Exhibits

Exhibit 3.1: Project Components	3-7
Exhibit 4.1: Participation Framework.....	4-8
Exhibit 4.2: Conceptual Framework.....	4-10
Exhibit 4.3: List of Participants during Grass Root Consultations.....	4-11
Exhibit 4.4: Checklist used for Stakeholder Consultations.....	4-13
Exhibit 5.1: Summary of Land Required for the Project	5-7
Exhibit 5.2: Summary of Affected Land and Estimated Compensation.....	5-7
Exhibit 6.1: Entitlement Framework.....	6-4
Exhibit 7.1: Organizational Structure for Environmental and Social Management.....	7-8
Exhibit 7.2: Roles and Responsibilities.....	7-10
Exhibit 7.3: Grievance Redressal Mechanism	7-11
Exhibit 7.4: Environmental and Social Trainings	7-13
Exhibit 8.1: Social Monitoring Framework	8-6
Exhibit 9.1: Environmental and Social Management Budget	9-2

1 Introduction

The Multan Electric Power Company (MEPCO) is planning to undertake the 6th Secondary Transmission and Grid (STG) and Energy Loss Reduction (ELR) project in various parts of its territory. MEPCO is seeking finances from the World Bank (WB) for a portion of this 5-year project. In line with the prevailing legislation in the country, and WB safeguard policies, an environmental and social assessment (ESA) of the project has been carried out.

In order to address the resettlement issues likely to arise during the proposed project, as identified during the ESA study, a Resettlement Plan (RP) has been prepared, in accordance with the WB Operational Policies. This document presents the RP for the proposed project.

1.1 Project Proponent

MEPCO is a public utility company, providing electricity to the southern districts of the Punjab Province (Multan, Sahiwal, Khanewal, Pakpattan, Vehari, Rahim Yar Khan, Muzaffargarh, Dera Ghazi Khan, Layyah, Rajanpur, Bahawalpur, Bahawalnagar and Lodhran). MEPCO was incorporated in 1998 under the Companies Ordinance 1984. Before this, it was one of the eight Area Electricity Boards (AEBs) of the Water and Power Development Authority (WAPDA).

Established in 1958, WAPDA had two wings: Water and Power. The Water Wing was (and still is) responsible for developing and managing large water reservoirs and barrages, while its Power Wing was a vertically integrated utility, responsible for generation, transmission and distribution of electricity throughout Pakistan (except for the City of Karachi, where the Karachi Electric Supply Company – KESC - performed a similar function).

Under its un-bundling and restructuring program, WAPDA's Power Wing has been broken down into eight distribution companies collectively called DISCOs, three generating companies collectively called GENCOs and a transmission company called National Transmission and Dispatch Company (NTDC). MEPCO is one of the eight DISCOs.

1.2 Project Background and Justification

Pakistan as a whole is an energy-deficient country and per capita electricity generation has traditionally been low (581 KWh as against the World average of 2,657 KWh²). The electricity demand in the country has grown at a rapid pace since 1985. Consumption of electricity increased from 17,608 GWh in 1985 to 55,507 GWh in 2004, representing an annual average growth rate of 6.2%. The growth in the electricity demand has however been uneven over the years. The consumption grew at a rate of 11% during 1985-99, the growth rate slowed down to 6.9% during 1990-95 and 2.5% during 1996-2000. Since the year 2000 however, the trend has reversed and electricity demand has picked up,

² Source: World Bank, Medium Term Development Framework 2005-10.

mirroring the overall economic growth in the country. During the period 2001-04, the electricity demand grew at a rate of 3.3% (NEPRA 2005).

MEPCO is also experiencing growth in the electricity demand. In order to meet the increasing electricity demand, the existing secondary transmission and grid system (132 and 66 kV) has to be expanded, in addition to the increased generation and primary transmission (500 kV and 220 kV) capacity. Towards this end, MEPCO, being responsible for the expansion, operation and maintenance of the secondary transmission and grid (STG) system within its territory, has developed the 6th STG project. The ELR project on the other hand ensures increased system reliability and reduced losses at the HT and LT levels (11 kV and 0.4 kV, respectively).

The project includes establishment of new grid stations, extension / conversion / augmentation of existing grid stations, laying of new transmission line and replacing weaker/undersized transmission lines. The project will ensure supply of electricity in new areas, load reduction on presently overloaded grid stations and transmission lines, and improvement in the voltage profile as well as the system reliability.

1.3 Project Overview

The overall objective of the 6th STG and ELR project is to help increase the efficiency, reliability and quality of the electricity supply. The project seeks to decrease the technical as well as commercial losses, increase the electricity availability, and improve the voltage profile, within the MEPCO's electricity network.

1.3.1 STG Project

The 6th STG is a 5-year project, from 2005-6 to 2009-10³, and has been broken down in five distinct year-wise phases. Each phase of the project consists of establishing new grid stations, extending/upgrading/augmenting existing grid stations, and laying transmission lines. The key components of these phases are tabulated below.⁴

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
New Grid Stations (GS)	3	5	5	4	3	20
GS Conversion	3	3	0	0	2	8
GS Augmentation	13	5	4	2	0	24
GS Extension	16	12	5	3	0	36
Transmission Lines (km)	190	272	129	49	26	666

MEPCO is seeking the WB financing for a 3-year slice starting with the 2nd year of the project.

³ The original PC1 was prepared for the project duration from 2003-04 to 2007-08.

⁴ The original year-wise distribution of work within the total project duration as given in the PC1 has subsequently been revised, based upon changing load demand and priorities.

1.3.2 ELR Project

The ELR is also a 5-year project, from 2005-06 to 2009-10. The project consists of rehabilitation of high-tension (HT) feeders and low-tension (LT) lines, replacement of undersized and/or old transformers, replacement of sluggish energy meters, and associated activities. The yearly breakup of the key components of this project is provided below.

Description	Year 1	Year 2	Year 3	Year 4	Year 5
11 kV New Lines (km)	131	65	59	68	93
11 kV Re-conductoring (km)	108	77	72	68	91
Transformers for LT Proposals	526	250	227	260	300
New LT Lines (km)	473	43	43	63	78
LT Lines Re-conductoring (km)	75	72	65	85	110

MEPCO is seeking finances from the WB for the 2nd year of the ELR project, ie, 2006-07.

1.4 ESA Study and Resettlement Plan

The RP is one of the outcomes of the ESA study, and addresses some of the most significant adverse impacts of the proposed project. In this section, need of the entire study, its scope and methodology are presented.

1.4.1 Need of the Study

The World Bank Operational Policy 4.01 (OP 4.01) states that “The Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making”⁵. The OP 4.12 (further discussed in **Chapter 2**) requires that an RP is developed if the project affectees are likely to be more than 200.

In addition, the Pakistan Environmental Protection Act, 1997 (PEPA 1997) requires the proponents of every development project in the country to submit either an Initial Environmental Examination (IEE) or “where the project is likely to cause an adverse environmental effect,” an Environmental Impact Assessment (EIA) to the concerned environmental protection agency (EPA). The IEE/EIA Regulations 2000 issued under the PEPA 1997 provide separate lists for the projects requiring IEE and EIA.

1.4.2 Study Objectives

ESA Study

The objectives of the ESA were:

- To assess the existing environmental and socioeconomic conditions of the project area,

⁵ Excerpts from WB OP4.01 – Environmental Assessment. January, 1999.

- To identify likely impacts of the proposed project on the natural, human and social environment of the area, to predict and evaluate these impacts, and determine significance of these impacts, in light of the technical and regulatory concerns,
- To propose appropriate mitigation measures that should be incorporated in the design of the project to minimize if not eliminate the adverse impacts,
- To assess the compliance status of the proposed activities with respect to the environmental legislation and WB's Operational Policies,
- To develop an environmental management plan (EMP) to provide an implementation mechanism for the environmental as well as social mitigation measures identified during the study.

Resettlement Plan

Based upon the outcome of the ESA study, the present RP has been developed as the social mitigation measure. The objectives of the RP are:

- To provide an entitlement framework for the project affectees – project affected persons (PAPs),
- To assess the type and magnitude of resettlement
- To identify the PAPs
- To define institutional and implementation arrangements
- To define the monitoring and evaluation requirements,
- To provide the cost estimates for the RP implementation.

1.4.3 Study Scope

The ESA study and the RP cover the components of the proposed 6th STG and ELR project which will be carried out during the year 2006-07. These components of the 6th STG and ELR project will be referred to as the proposed project in this document. The ESA study addresses the potential environmental and social impacts that may be encountered during the design, construction and operation phases of the proposed project, in accordance with the terms of reference (ToR) provided by MEPCO for this purpose. The RP on the other hand primarily focuses on the resettlement issues identified by the ESA study, along with the mitigation measures. (The ToR of the RP is included in the ESA ToR, which is provided in the ESA report.)

1.4.4 Study Methodology

The key steps that were followed while conducting the ESA, and developing the RP, are briefly described below.

Scoping

During this phase, key information on the project was collected and reviewed. A 'long list' of the potential environmental as well as social issues likely to arise as a result of the project was developed.

Analysis of the stakeholders was one of the key elements of the scoping phase of the study. During this, identification of the stakeholders was carried out, followed by an analysis of their interests and influence with respect to the proposed project. Based upon this analysis, the plan was developed to carry out the stakeholder consultation (described below).

Stakeholder Consultation

Stakeholder consultations were carried out during the ESA study, in order to disseminate the project information among the key stakeholders, and to address their concerns in the project implementation, as much as possible. Meetings were held in Islamabad with the institutional stakeholders and key environmental and social issues discussed. Consultations with the grass root stakeholders were carried out at the project sites (grid station locations and transmission line routes).

During these consultations, the stakeholders were provided the key project information, and their apprehensions/comments/suggestions noted. In particular, detailed consultations were carried out with the grass root stakeholders, including the project beneficiaries as well as the people likely to be adversely impacted by the project.

Data Collection/Compilation

During this phase, data was collected and compiled, in order to develop a baseline of the project area's physical, biological and human environment. For this purpose, both review of secondary sources and field data collection were carried out. Field visits to each of the new grid station site, existing grid stations (which are to be extended/augmented/upgraded) and transmission line routes, were carried out.

The secondary resources that were consulted included reports of the studies carried out earlier, published books and data, and relevant websites. With the help of these resources a generic profile of the entire project area was developed.

In addition to the above, extensive field visits were carried out in order to collect the primary data specific to the project sites (grid station locations and transmission line routes). During these field visits, key information on environmental and social parameters was collected. During the primary data collection, environmental as well as social hot spots falling at or near the project sites were identified, and most importantly, the project affectees were determined.

During the field investigations, detailed information was collected on the cultivated area falling under the transmission line routes, since damage to the crops would be the primary asset loss during the proposed project. Information was also collected on the owners/tenants of the cultivated land under the transmission line.

Impact Assessment

During the impact assessment, the environmental, socioeconomic, and project information collected in previous steps was used to determine the potential impacts of the proposed project. Subsequent to this, the potential impacts were characterized in order to determine their significance. Mitigation measures were identified where required to minimize the significant environmental and social impacts. A management framework

was also developed in the form of an EMP for the implementation of the mitigation measures identified during the study.

In addition to the above, the present Resettlement Plan has also been developed as part of this ESA to mitigate the resettlement and other social issues that are likely to arise as a result of the proposed project. The social screening checklist, provided in the terms of reference (ToR), was also used as one of the tools to conduct the social impact assessment.

The impact assessment has been carried out and the associated mitigation measures recommended on the basis of the surveyed transmission line routes and other project locations. Variations in the impacts and associated mitigation measures are expected if the project components are moved outside the surveyed corridor.

RP Development

The ESA report compilation was carried out towards the end of the study, and followed the standard structure defined by the relevant guidelines.

The RP has been developed in accordance with the OP 4.12. The primary data collected during the earlier phase of the study was used to identify the PAPs and to determine the magnitude of the compensation. The RP provides entitlement framework, compensation assessment and disbursement procedure, monitoring requirements and resettlement budget for the proposed project.

1.4.5 Study Team

The ESA team consisted of environmental and socioeconomic experts having considerable experience in their respective field of expertise. The list of the experts is provided in **Appendix A** of the ESA report.

1.5 Document Structure

Chapter 2 discusses the World Bank's safeguard policies, as well as the regulatory and legislative setup in the country, relevant to the social assessment and resettlement.

Chapter 3 provides a simplified and brief description of the project and its components.

The stakeholder consultation has been covered in **Chapter 4**. The Chapter provides stakeholder analysis carried out during the ESA, and participation framework to be employed during the project. Also given in the chapter is the outcome of the institutional as well as grass root stakeholder consultations.

Chapter 5 provides an overview of the socioeconomic conditions of the project area. Also provided in the Chapter are the resettlement issues as well as other socioeconomic impacts and their respective mitigations.

The entitlement framework for the proposed project is provided in **Chapter 6**. The framework defines the entitlement criteria to be followed while assessing the compensation for different types of involuntary resettlement that could arise as a result of the project.

Chapter 7 presents the institutional as well as implementation mechanism for addressing the involuntary resettlement and other socioeconomic issues associated with the project. The Chapter defines organizational structure, roles and responsibilities of various project entities. A step-wise procedure is also provided for the RP implementation in the field. Also given in the Chapter is the communication and documentation protocol to be followed at the project sites. The Grievance Redressal Mechanism is the key element of the implementation mechanism.

The monitoring and evaluation requirements are provided in **Chapter 8**. The Chapter describes the monitoring types, their procedure, timing and the associated reporting requirements.

Finally **Chapter 9** presents the resettlement budget for the proposed project. The budget covers the entire cost of implementing the RP and EMP of the proposed project.

Appendix A provides details of the cultivated land that would fall under the proposed transmission lines, the landowner names, the cultivated area to be affected and estimates of the associated compensation.

2 Policy and Legal Framework

This Chapter discusses the policy and legal framework relevant to the social assessment and resettlement issues of the proposed project.

2.1 The World Bank Operational Policies

Applicability of the WB Operational Policies (OPs) with respect to the resettlement and other social issues associated with the proposed project is tabulated below.

Operational Policy	Applicability
Involuntary Resettlement (OP 4.12)	Yes
Cultural Property (OP 4.11)	No
Indigenous People (OP 4.10)	No
Project in Disputed Area (7.60)	No

These policies are discussed in the following sections.

2.1.1 Involuntary Resettlement (OP 4.12)

The WB's experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.⁶

The overall objectives of the Policy are given below.

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement

⁶ Excerpts from WB OP 4.12. WB Operational Manual. December 2001.

levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

The Policy defines the requirement of preparing a resettlement plan or a resettlement policy framework, in order to address the involuntary resettlement.

For the proposed project, land will need to be acquired for the establishment of the new grid stations. During the site/route selection, settlements are generally avoided, however at some places acquisition of cultivable land – though temporary - cannot be avoided.

Similarly, crops along the proposed transmission lines may be damaged during the construction and operation phases of the proposed project.

In view of the above, the OP 4.12 will be triggered; the present Resettlement Plan has thus been developed in accordance with this OP.

2.1.2 Cultural Property (OP 4.11)

The World Bank's general policy regarding cultural properties is to assist in their preservation, and to seek to avoid their elimination. The specific aspects of the Policy are given below.⁷

- The Bank normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage.
- The Bank will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. In some cases, the project is best relocated in order that sites and structures can be preserved, studied, and restored intact in situ. In other cases, structures can be relocated, preserved, studied, and restored on alternate sites. Often, scientific study, selective salvage, and museum preservation before destruction is all that is necessary. Most such projects should include the training and strengthening of institutions entrusted with safeguarding a nation's cultural patrimony. Such activities should be directly included in the scope of the project, rather than being postponed for some possible future action, and the costs are to be internalized in computing overall project costs.
- Deviations from this policy may be justified only where expected project benefits are great, and the loss of or damage to cultural property is judged by competent authorities to be unavoidable, minor, or otherwise acceptable. Specific details of the justification should be discussed in project documents.
- This policy pertains to any project in which the Bank is involved, irrespective of whether the Bank is itself financing the part of the project that may affect cultural property.

During the ESA, no site of historical, cultural or archaeological importance was found to be affected by the project. Hence OP 4.11 is not triggered.

⁷ Excerpts from the OPN 11.03. WB Operational Manual. September 1986.

However, in case of discovery of any sites or artifacts of historical, cultural, archeological or religious significance during the project execution, the work will be stopped at that site. The provisions of this Policy will be followed. Additionally, the provincial and federal archeological departments will be notified immediately, and their advice sought before resumption of the construction activities at such sites.

2.1.3 Indigenous People (OP 4.10)

For purposes of this policy, the term “Indigenous Peoples” is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:⁸

- self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- an indigenous language, often different from the official language of the country or region.

The OP defines the process to be followed if the project affects the indigenous people.

During the ESA, no indigenous people - with a social and cultural identity distinct from the dominant society that makes them vulnerable to being disadvantaged in the development process - were found in the areas where different project components are planned to be located. Therefore this OP is not triggered.

However if such groups are identified during the project implementation, the proponents will develop an Indigenous People Development Plan, in compliance with the OP and get it approved by the Bank.

2.1.4 Projects in Disputed Areas (OP 7.60)

Projects in disputed areas may raise a number of delicate problems affecting relations not only between the Bank and its member countries, but also between the borrower and one or more neighboring countries. In order not to prejudice the position of either the Bank or the countries concerned, any dispute over an area in which a proposed project is located is dealt with at the earliest possible stage.

The Bank may proceed with a project in a disputed area if the governments concerned agree that, pending the settlement of the dispute, the project proposed for country A should go forward without prejudice to the claims of country B.⁹

Since the project area does not fall in any disputed territory, this OP is not triggered.

⁸ Excerpts from the OP 4.10. WB Operational Manual. July 2005.

⁹ Excerpts from the OP 7.60. WB Operational Manual. November 1994.

2.2 National Laws and Regulations

Pakistan's statute books contain a number of laws concerned with the regulation and control of the environmental and social aspects. However, the enactment of comprehensive legislation on the environment, in the form of an act of parliament, is a relatively new phenomenon. Most of the existing laws on environmental and social issues have been enforced over an extended period of time, and are context-specific. The laws relevant to the developmental projects are briefly reviewed below.

2.2.1 Pakistan Environmental Protection Act, 1997

The Pakistan Environmental Protection Act, 1997 (the Act) is the basic legislative tool empowering the government to frame regulations for the protection of the environment (*the 'environment' has been defined in the Act as: (a) air, water and land; (b) all layers of the atmosphere; (c) all organic and inorganic matter and living organisms; (d) the ecosystem and ecological relationships; (e) buildings, structures, roads, facilities and works; (f) all social and economic conditions affecting community life; and (g) the inter-relationships between any of the factors specified in sub-clauses 'a' to 'f'.* The Act is applicable to a broad range of issues and extends to socioeconomic aspects, land acquisition, air, water, soil, marine and noise pollution, as well as the handling of hazardous waste. The discharge or emission of any effluent, waste, air pollutant or noise in an amount, concentration or level in excess of the National Environmental Quality Standards (NEQS) specified by the Pakistan Environmental Protection Agency (Pak-EPA) has been prohibited under the Act, and penalties have been prescribed for those contravening the provisions of the Act. The powers of the federal and provincial Environmental Protection Agencies (EPAs), established under the Pakistan Environmental Protection Ordinance 1983,¹⁰ have also been considerably enhanced under this legislation and they have been given the power to conduct inquiries into possible breaches of environmental law either of their own accord, or upon the registration of a complaint.

The requirement for environmental assessment is laid out in Section 12 (1) of the Act. Under this section, no project involving construction activities or any change in the physical environment can be undertaken unless an initial environmental examination (IEE) or an environmental impact assessment (EIA) is conducted, and approval is received from the federal or relevant provincial EPA. Section 12 (6) of the Act states that this provision is applicable only to such categories of projects as may be prescribed. The categories are defined in the Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000 and are discussed in **Section 2.2.2** below.

The requirement of conducting an environmental assessment of the proposed project emanates from this Act.

¹⁰ Superseded by the Pakistan environmental Protection Act, 1997.

2.2.2 Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000

The Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000 (the 'Regulations'), developed by the Pak-EPA under the powers conferred upon it by the Act, provide the necessary details on preparation, submission and review of the initial environmental examination (IEE) and the EIA. Categorization of projects for IEE and EIA is one of the main components of the Regulations. Projects have been classified on the basis of expected degree of adverse environmental impacts. Project types listed in Schedule I are designated as potentially less damaging to the environment, and those listed in Schedule II as having potentially serious adverse effects. Schedule I projects require an IEE to be conducted, provided they are not located in environmentally sensitive areas. For the Schedule II projects, conducting an EIA is necessary.

The proposed project falls under the Schedule II of the Regulations, hence an EIA has to be conducted for it.

2.2.3 Land Acquisition Act, 1894

The Land Acquisition Act (LAA) of 1894 amended from time to time has been the de-facto policy governing land acquisition for public purposes in the country. The LAA is the most commonly used law for acquisition of land and other properties for development projects. It comprises of 55 sections pertaining to area notifications and surveys, acquisition, compensation and apportionment awards and disputes resolution, penalties and exemptions. The key sections of the LAA are briefly described below.

Section 3

According to this Section, land means land along with any superstructure, fixtures, etc., thereon and benefits accruing there from. For the purposes of Act, land includes buildings, and also trees and standing crops. Land thus is a sum total of land plus benefits arising out of land plus all objects/things attached to or permanently fastened to anything attached to earth.

Section 4

The Section 4 is the first step in the land acquisition process under the LAA. Under this Section, a preliminary notice is served by the government expressing its desire to "enter upon" broadly identified private lands for surveying and soil-testing for the specified public purpose/s.

Requirements of publication of the notification under Section 4 are mandatory, and the acquisition proceedings would stand invalid if requisites of this section are not fully satisfied. Notification of Section 4 is a public pronouncement by appropriate government officer, empowered to publish a notification to that effect in official gazette in order to put those who are affected or likely to be affected on due notice. It is an introductory measure and is tentative in its nature, as there is no finality or result in acquisition. Purpose of Section 4 is to carry out preliminary investigation/land survey with a view to find out after necessary survey whether land was adapted for purposes for which it was sought to be acquired. The Section 4 puts owners of land on alert that land is to be acquired.

Section 5

The initial notification under the Section 4 is followed and confirmed by way of a second notification under Section 5 of the Act. Under this Section, the marking and measurement of the land and assessment of compensation is carried out. The cash compensation is assessed on the basis of five or three years average registered market rate, and is paid to the landowners for their lands being acquired.

Under Section 5, the owners of land or affectees or those likely to be affected, may raise objections over the intent of land acquisition or survey report to the competent authority within 30 days for the hearing of objections.

Section 6

Once an area in the locality is fixed to be acquired, it is notified by publishing the notification under Section 6 of the Act. The exact purpose of acquisition of land is also mentioned in the notification, and the land may be acquired only for the purpose thus specified. Any proposal for further acquisition in the same locality would have to be followed up by a fresh notification under Section 4.

Section 8

Affectees are made aware of the exact measurement of their respective lands/structures and the value of land under acquisition through issuance of notification under Section 8 of the Act.

Section 9

The government issues notice under Section 9 stating that the land is intended to be possessed and claims for compensation for all interests in the land may be made to the officer concerned and all persons interested/affectees in the land should appear before him at a given place and time not being earlier than 15 days after the publication of said notice under Section 9.

Sections 10, 11 and 12

The Collector under Sections 11 and 12 based on the proceedings under Section 9 and 10 publicly declares/announces awards. Generally the award is declared at place where affectees can get together and hear the award. Affectees can either accept the award or reject the award, however, in any case the affectees have to sign the award mentioning whether they accept the award and the compensation offered therein or reject the award and sign under protest.

Section 17

Under this section, collector is authorized to acquire land on the basis of the situation declared as "emergency situation" on behalf of the government and can avoid the formalities to be completed and to avoid any delay in proceedings. In such a situation, the collector under section 17(4) can pass an award without looking into or addressing the objections/complaints of affectees. Proceedings under this section are independent and not subject to any restrictions and conditions.

Possession of Land

When the Collector has made an award under section 11/12, he may take possession of the land which shall thereupon vest absolutely in the government/ or acquiring department free from all encumbrances.

Under this Act, only legal owners and tenants officially registered with the Land Revenue Department or possessing formal lease agreements are considered "eligible" for land compensation.

Land Acquisition under the Proposed Project

WAPDA has been acquiring land for the grid stations under the provisions of this Act. However, for the proposed project, the grid station sites will be procured directly from the owners, after paying the mutually agreed price. And in case some parts of the land required for the proposed project is acquired under this Act, the Urgency/Emergency Clause (Section 17) will not be used, in the absence of an urgency or emergency.

2.2.4 National Resettlement Policy / Ordinance

The Ministry of Environment, Local Government and Rural Development formulated a draft policy in 2004 on involuntary resettlement with technical assistance from ADB. The policy aims to compensate for the loss of income to those who suffer loss of communal property including common assets, productive assets, structures, other fixed assets, income and employment, loss of community networks and services, pasture, water rights, public infrastructure like mosques, shrines, schools and graveyards.

The government has also developed a document entitled "*Project Implementation and Resettlement of the Affected Persons Ordinance, 2002*", later referred to as the "*Resettlement Ordinance*", for enactment by provincial and local governments, after incorporating local requirements. The Ordinance, being a new law, shall be supplementary to the LAA as well as other laws of Pakistan, and wherever applicable under this policy. However, if necessary, appropriate amendments to the LAA 1894 will also be proposed to facilitate the application of the Resettlement Ordinance.

There has not been much progress on the enactment of the Resettlement Ordinance; hence this is not relevant for the proposed project.

2.2.5 Telegraph Act, 1885

This law was enacted to define the authority and responsibility of the Telegraph authority. The law covers, among other activities, installation and maintenance of telegraph lines and posts (poles). The Act defines the mechanism to determine and make payment of compensation associated with the installation of these lines and posts.

Under this Act, the land required for the poles is not acquired (or purchased) from the owner, nor the title of the land transferred. Compensation is paid to the owner for any structure, crop or tree that exists on the land; cost of the land is not paid to the owner.

WAPDA has been installing the transmission lines and their towers, and determining the associated compensation, on the basis of this Act.

For the proposed project as well, MEPCO will use this Act. However, the land under the towers will be acquired and compensated, if there is loss of access, and productive use of the land by the landowners/affectees is impacted.

2.2.6 Provincial Local Government Ordinances, 2001

These ordinances were issued under the devolution process and define the roles of the district governments. These ordinances also address the land use, conservation of natural vegetation, air, water and land pollution, disposal of solid waste and wastewater effluents, as well as matters relating to public health.

Under the new system of district governments, the Executive District Officer – Revenue (EDO-Revenue) is the Revenue Officer for the district.

2.2.7 Antiquity Act, 1975

The Antiquities Act of 1975 ensures the protection of cultural resources in Pakistan. The Act is designed to protect 'antiquities' from destruction, theft, negligence, unlawful excavation, trade and export. Antiquities have been defined in the Act as ancient products of human activity, historical sites, or sites of anthropological or cultural interest, national monuments, etc. The law prohibits new construction in the proximity of a protected antiquity and empowers the Government of Pakistan to prohibit excavation in any area that may contain articles of archeological significance.

Under this Act, the project proponents are obligated to:

- Ensure that no activity is undertaken in the proximity of a protected antiquity, and
- If during the course of the project an archeological discovery is made, it should be reported to the Department of Archeology, Government of Pakistan.

During the ESA, no site of historical, cultural or archaeological importance was found to be affected by the project. However, in case of discovery of any sites or artifacts of historical, cultural, archeological or religious significance during the project execution, the work will be stopped at that site. The provincial and federal archeological departments will be notified immediately, and their advice sought before resumption of the construction activities at such sites.

2.2.8 Factories Act, 1934

The clauses relevant to the MEPCO's proposed project are those that address the health, safety and welfare of the workers, disposal of solid waste and effluents, and damage to private and public property. The Act also provides regulations for handling and disposing toxic and hazardous substances. The Pakistan Environmental Protection Act of 1997 (discussed above), supersedes parts of this Act pertaining to environment and environmental degradation.

MEPCO and contractors will be liable to follow the provisions of the Act, where relevant.

2.2.9 Employment of Child Act, 1991

Article 11(3) of the Constitution of Pakistan prohibits employment of children below the age of 14 years in any factory, mines or any other hazardous employment. In accordance with this Article, the Employment of Child Act (ECA) 1991 disallows the child labor in the country. The ECA defines a child to mean a person who has not completed his/her fourteenth years of age. The ECA states that no child shall be employed or permitted to work in any of the occupation set forth in the ECA (such as transport sector, railways, construction, and ports) or in any workshop wherein any of the processes defined in the Act is carried out. The processes defined in the Act include carpet weaving, bidi (kind of a cigarette) making, cement manufacturing, textile, construction and others).

MEPCO and its contractors will be bound by the ECA to disallow any child labor at the project sites or campsites.

3 Description of the Project

This Chapter provides a simplified and brief description of various components of the proposed project and their salient features, location, and phases.

3.1 Project Objectives

The overarching objective of the 6th STG and ELR project is to increase the efficiency, reliability and quality of the electricity supply. The project aims to achieve:

- Strengthening of electricity transmission network to reduce bottlenecks and improve system reliability and quality
- Strengthening of electricity distribution network to reduce losses and improvement in supply.

This will be achieved by adding new grid stations, upgrading/augmenting/converting the existing ones, adding new transmission lines, bifurcating long distribution feeders and replacing old/undersized conductors as well as transformers.

3.2 Project Components

The 3-year slice of the 6th STG project – for which MEPCO is seeking the WB financing – consists of establishing 14 new grid stations, converting 3, augmenting 11, extending 20 existing grid stations, and laying of 509 km transmission lines.

The present RP addresses the project components which will be undertaken during the Year 2006-07. These components are shown in **Exhibit 3.1** and their salient information tabulated below.

Project Component	Features
<i>New Grid Stations</i>	
Bahawalpur Cantonment (Cantt.)	132 kV grid station; 2 × 26 MVA transformers
Jail Road, Multan	132 kV grid station; 2 × 26 MVA transformers
Suraj Miani, Multan	132 kV grid station; 2 × 26 MVA transformers
Sahiwal III	132 kV grid station; 2 × 26 MVA transformer
Makhdumpur	132 kV grid station; 2 × 13 MVA transformers
<i>Conversion of Existing Grid Stations (66 kV to 132 kV)</i>	
Head Sidhnai	132 kV grid station; 2 × 13 MVA transformers
Lal Sohanra	132 kV grid station;

Project Component	Features
	2 × 13 MVA transformers
Khairpur Tamewali	132 kV grid station; 2 × 13 MVA transformers
<i>Extension of Existing Grid Stations</i>	
Chowk Azam	1 × Line Bay
Kot Addu	1 × Line Bay
Daharanwala	1 × 13 MVA transformer
Damarwala	1 × 13 MVA transformer
Jampur	1 × 13 MVA transformer
Karor Lal Essan	1 × 13 MVA transformer
Khan Garh	1 × 13 MVA transformer
Khanewal Road, Multan	2 × 26 MVA transformers
Kot Chutta	1 × 13 MVA transformer
Qabula	1 × 13 MVA transformer
Hasilpur	1 × Line Bay
Kahrer Pecca	1 × Line Bay
<i>Augmentation of Existing Grid Stations</i>	
Harappa	1 × 26 MVA transformer
Kacha Khoh	1 × 26 MVA transformer
Mailsi	1 × 26 MVA transformer
Sahiwal New	1 × 26 MVA transformer
Khanpur	1 × 26 MVA transformer
<i>New Transmission Lines ¹¹</i>	
Feed for Bahawalpur Cantanment grid station	Length: 2 km
Feed for Sahiwal III grid station	Length: - 0.3 km
Feed for Jail Road (Multan) grid station	Length: 1 km
Feed for Suraj Miani grid station	Length: 5 km
Feed for Makhdumpur	Length: 18 km
Feed for Head Sidhnai grid station	Length: 15 km
Feed for Lal Sohanra grid station	Length: 2 km
Kahrer Pacca – Lal Sohanra	Length: 30 km
Lal Sohanra – Khairpur Tamewali	Length: 25 km
Khairpur Tamewali – Hasilpur	Length: 35 km
Kot Addu – Chowk Azam	Length: 106 km

¹¹ The lengths of the new transmission lines are indicative only.

Project Component	Features
<i>ELR Works</i>	
New HT lines	65 km
HT Line Re-conductoring	77 km
Transformers	250
New LT Lines	43 km
LT Lines Re-conductoring	72

3.3 Project Implementation

This section briefly describes the various activities that will be carried out during the implementation of the proposed project.

3.3.1 Grid Stations

The sequence of activities which are carried out for the establishment of a new grid station is provided below.¹²

- First of all, the location where the new grid station should be established is identified. This is carried out on the basis of load on the existing feeders, load on the nearby existing grid stations, lengths of the existing feeders, trend of the load growth and future outlook of the area.
- After the broad identification of the required location, availability of land is determined. Usually, 3 candidate sites are identified at this stage.
- In order to make the final selection, a committee of concerned departments (usually GSO, GSC and Planning) is constituted. After conducting the site inspection, the site of the proposed grid station is finalized.
- WAPDA has traditionally been acquiring land through the district/city administration (now district government)¹³, following the procedure laid down in the Land Acquisition Act. However, for the proposed project, MEPCO plans to purchase the required land through direct price negotiation with the land owner.
- The site is surveyed and its contour plan developed. This activity is carried out by the GSC department. Soil survey and geo-technical investigations are also carried out at this stage.
- The contour plan and result of the above investigations are sent to the Design Department.
- The Design Department prepares the detailed design of the grid station, including the civil design, construction drawings, general layout plan and equipment details.

¹² Because of the on-going re-structuring of WAPDA into the DISCOs and NTDC, some of the existing procedures and responsibilities do need to be redefined. Some of the functions which used to be centralized need to be distributed/replicated in the individual DISCOs.

¹³ The District Governments have been introduced in Pakistan.

- Once the civil design is available, estimates are prepared and approvals obtained from the concerned authority.
- Subsequent to the above, tendering and contract awarding is carried out for the civil construction.
- Parallel to the civil works, the grid station equipment (transformers, breakers, isolators, control panels, feeder panels and allied equipment) is obtained from the central stores.¹⁴
- The equipment is handed over to GSC Department, who installs it once the civil works are complete.
- Once the installation is complete, the system is tested jointly by the GSO and GSC departments.
- After the testing, the grid station is commissioned and put into operation.

For the proposed project, some of the grid station works can be implemented through turn-key contract, where the contractor is responsible for the supply, installation and commissioning of the entire grid station.

Furthermore, in view of the extent of the works under the proposed project, MEPCO may employ a supervision consultant, in order to ensure quality of the construction, installation and testing works.

3.3.2 Laying of Transmission Line and Feeders

The sequence of activities which are carried out for the laying of transmission lines and 11-kV feeders is provided below.

- First of all a reconnaissance site visit is carried out by the GSC Department in order to determine feasible routes for the transmission line.
- Three candidate routes are marked on the map, and sent to the Design Department.
- The Design Department approves one of the routes.
- The GSC carries out detailed survey (plain tabling as well as profiling) of the approved route.
- The results of the detailed survey are sent to the Design Department.
- The Design Department prepares the detailed design.
- Material is procured after tendering.
- Tendering for the construction works is carried out and contract awarded.
- Construction activities are started by demarcating the tower locations. Temporary right of way (RoW) is acquired along the transmission line route to carry out the construction activities. Additional construction RoW is acquired for the routes to access the transmission line corridor/tower locations.

¹⁴ For all future projects, DISCOs will be responsible for the procurement of all equipment and store.

- Compensation is determined and disbursed (the relevant procedures to be adopted during the proposed project are discussed later in the document).
- Excavation for tower foundation is carried out subsequent to the above. Appropriate machinery is employed for this purpose, such as excavator. In the hilly/rocky areas, blasting is also sometimes needed for excavation. Once excavation is complete, construction of the tower foundation is taken in hand. Towers are erected subsequent to this.
- Once towers are erected, stringing is carried out and accessories (insulators, etc.) installed.
- After the completion of installation activities described above, testing is carried out. After that the line is commissioned and put into operation.

3.4 Operation and Maintenance Activities

The operation and maintenance (O&M) activities of grid stations and transmission lines are briefly described below.

- Operation Activities
 - ▶ The grid stations are manned round the clock and important parameters (such as voltage, load and power factor) monitored. Daily log sheets are filled, recording the key data.
 - ▶ Any abnormality is recorded and concerned departments informed for taking remedial measures.
- Scheduled Maintenance
 - ▶ Checking/testing of transformers (further discussed below)
 - ▶ Testing of breakers
 - ▶ Testing of protection system
 - ▶ Transmission line patrolling
 - ▶ Washing/replacement of insulators
 - ▶ Emergency Maintenance
 - ▶ Locating the fault
 - ▶ Carrying out repairs or replacements, as needed
 - ▶ Restoring the system to the normal operating conditions.

Maintenance of Transformers

Power transformer repairs: The minor repairs for the power transformers are carried out at the grid stations, however for the major repairs, the transformers are transported to the WAPDA's Power Transformer Reclamation Workshop at Kot Lakhpat, Lahore. MEPCO, much like the other DISCOs, intends to utilize the same facility in the future as well.

Distribution transformer repairs: No field repair is allowed for the distribution transformers. If the transformers are damaged within the warranty period (usually 2 years after delivery), they are returned to the suppliers. If damaged after this period, the transformers are sent to the Distribution Transformer Reclamation Workshops located in Lahore and Multan.

Transformer oil testing: The dielectric strength of the transformer oil filled in the power transformers is tested every year at the grid stations. For this purpose, a simple device called the oil testing set is used. Oil sample is taken out of the transformer and test performed. A record is maintained for these yearly tests. No action is taken if the test results are within the prescribed limits. However, if the dielectric strength of the transformer oil is found to be less than the allowable limits, the oil is replaced.

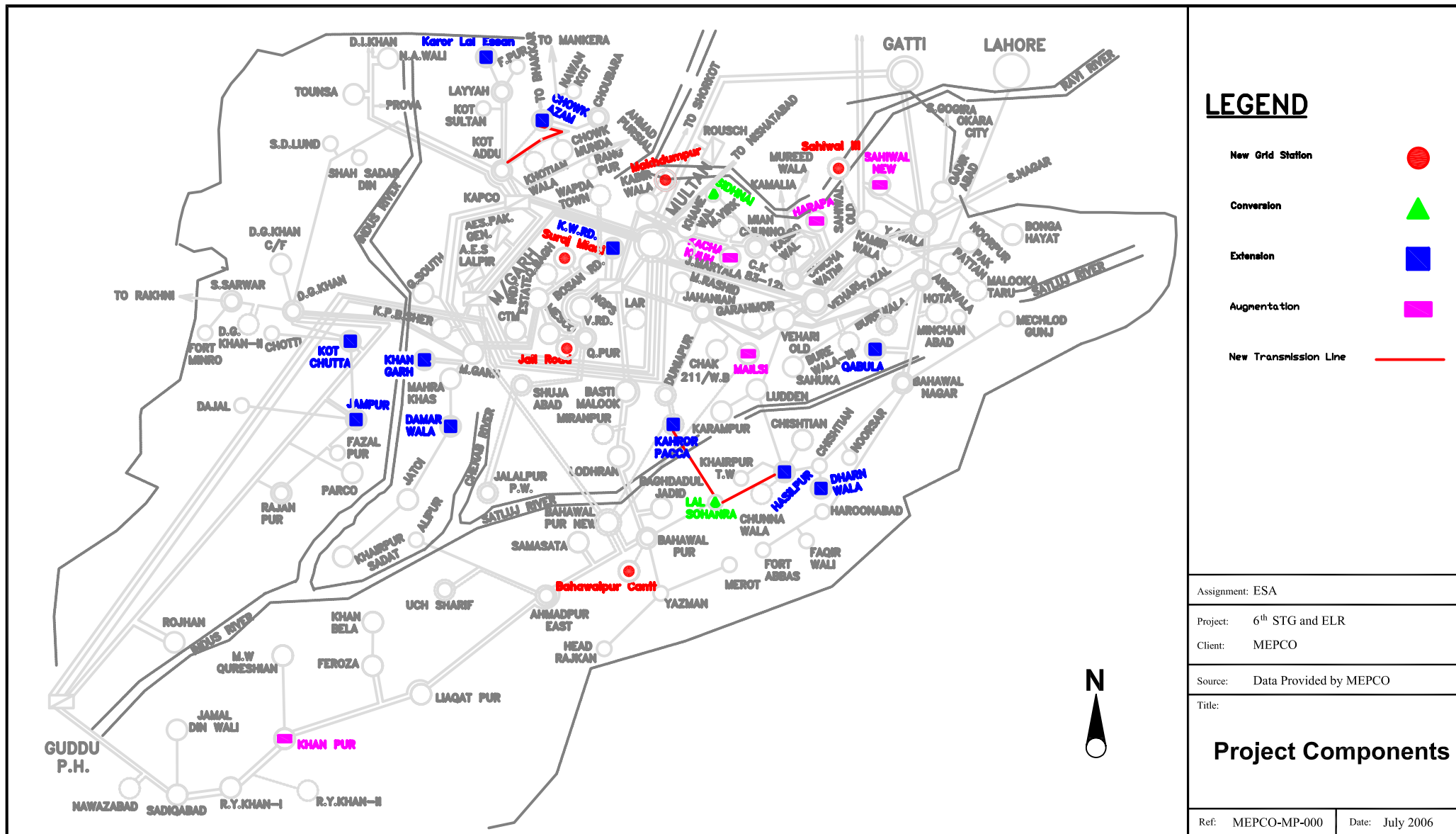
After every five years, a more comprehensive test is carried out for the transformer oil. Three oil samples are taken from each transformer and sent to the WAPDA's High Voltage and Research Laboratory in Faisalabad. At the Laboratory, the following tests are carried out:

- ▶ Flash point
- ▶ Viscosity
- ▶ Moisture
- ▶ Gas contents
- ▶ Dielectric strength.

Currently, no tests are performed to check the presence of poly-chlorinated biphenyl (PCB) in the transformer oil, though the transformer specifications include a clause that the oil should be PCB-free.

Exhibit 3.1: Project Components

(Please see the following page.)



4 Stakeholder Consultations

This Chapter provides the objectives, process and outcome of the stakeholders consultations conducted as part of the present assignment.

4.1 Objectives

Consultation with the stakeholders is an integral part of the environmental and social assessment, as well as RP development, for a project such as the 6th STG and ELR, and aims to provide a two-way communication channel between the stakeholders and the project proponents. In line with this aim, the objectives of the stakeholder consultation conducted as part of the present assignment were to:

- develop and maintain communication links between the project proponents and stakeholders,
- provide key project information to the stakeholders, and to solicit their views on the project and its potential or perceived impacts, and
- ensure that views and concerns of the stakeholders are incorporated into the project design and implementation with the objectives of reducing or offsetting negative impacts and enhancing benefits of the proposed project.

An attempt has been made during the present assignment to initiate consultations with the stakeholders, to solicit their views and concerns, and to address these concerns while developing the mitigation plan for the proposed project.

4.2 Participation Framework

The stakeholder consultation is a continued process, and should be maintained throughout the project. The consultations carried out during the ESA and reported in this Chapter are essentially a first step in this process. During the subsequent project phases as well, participation of the project stakeholders need to be ensured.

Exhibit 4.1 charts out the proposed participation framework during different project phases, while **Exhibit 4.2** provides the conceptual framework employed during the stakeholders consultation carried out as part of the ESA.

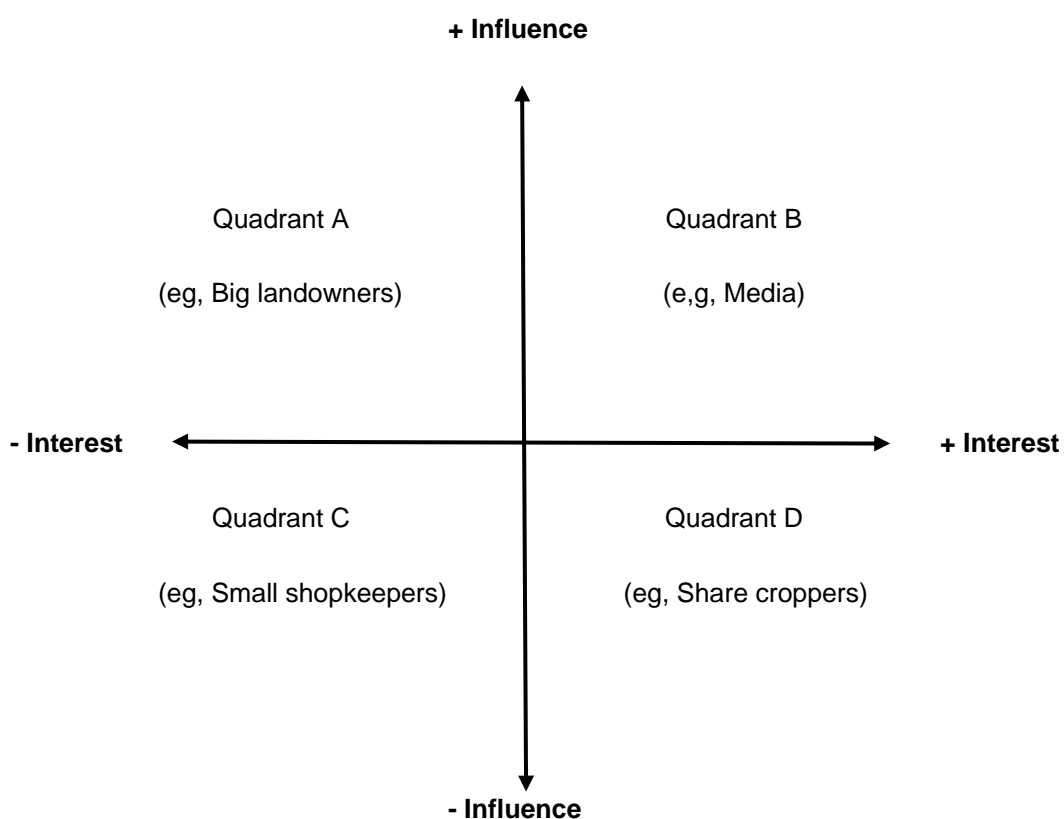
4.3 Stakeholder Analysis

Stakeholder analysis reveals the nature and magnitude of the stakeholders' interests in and influence on a project. The first step for the analysis is to identify the stakeholders, who are essentially not limited to those affected by the project. They also include those who can affect or influence the project. They can be winners, losers or indifferent. The stakeholder analysis aims to distinguish between the actual effects of the project on different stakeholders, and those stakeholders' perceptions about the project and its effects.

The second step in the stakeholder analysis is to analyze the interests and influence of the stakeholders, examining their assets and capabilities. The small landowners may have high stakes in a development project, but very little influence. As a contrast, the regulatory agencies may have very high influence but low interest in a project.

The third step is to differentiate stakeholders by their attachment to the status quo, or conversely, their desire/willingness to change.

The stakeholders can be best analyzed by comparing their commitment to the status quo against the influence they wield. The diagram given below conceptually presents the interplay of stakeholders' interest and their influence.¹⁵



The stakeholders that have considerable influence and are determined to prevent changes (Quadrant A in the above diagram), are the greatest challenges for many projects. The groups that want change, whether or not they have much influence, are the possible counterbalances (Quadrants B and D in the diagram). The project needs to find ways to increase the influence of groups that favor change but lack influence and to mediate between the influential groups that favor change and groups that oppose it.

¹⁵ Source: Social Analysis Sourcebook: Incorporating Social Dimensions into Bank-Supported Projects. The World Bank. December 2003.

During the present assignment, the stakeholder analysis was carried out to identify relevant stakeholders on the basis of their ability to influence the project or their vulnerability to be negatively impacted from it. This approach ensured that no relevant groups are excluded from the consultation, and appropriate engagement strategies are developed for each stakeholder.

Key stakeholders consulted at various levels include:

- People directly affected by the Project (ie, project affected persons or PAPs) (mostly having high negative interest and low influence).
- Project beneficiaries (mostly having high positive interest and low influence).
- MEPCO officials (mostly having high positive interest and high influence)
- District governments (revenue and other departments) (mostly having low/medium interest and high influence)
- Environment Protection Agency (mostly having medium interest and high influence)
- The broader interested community (mostly having low interest and low influence)
- The NGOs, international organizations and other interest groups (mostly having medium interest and medium to high influence).

4.4 Consultation Process

Consultations with the project stakeholders were carried out while conducting the present ESA. A participatory and consultative approach was employed for information gathering and data collection.

Meetings were held with a range of key informants as well as government and civil society stakeholders at different levels. The focus group discussions with smaller groups of grassroots stakeholders were held, whereas one-to-one meetings were held with the institutional stakeholders. These discussions were held with project affected people, project beneficiaries and other local communities in Multan, Muzaffargarh, Bahawalpur and Sahiwal districts. This process of public consultation was conceived to interact meaningfully with affected communities and other stakeholders. The consultations also helped better understand local knowledge with respect to the various sets of issues and concerns, and integrate these into the project design and EMP.

4.5 Consultations with Institutional Stakeholders

The institutional stakeholder consultations were held with the the following organizations:

- Environmental Protection Agency (EPA)
- Sustainable Development Policy Institute (SDPI)
- Leadership in Environment and Development (LEAD) fellows
- Lok Parya (a local NGO working at the grass root level)
- Energy Wing – Planning Commission, Government of Pakistan
- Worldwide Fund for Nature (WWF)
- National Environmental Action Plan (NEAP)

- International Union for Conservation of Nature (IUCN).

In addition, a meeting was also held with Dr Yusuf Hyat, who was part of the Persistent Organic Pollutants (POPs) Project.

Concerns Raised by Institutional Stakeholder

The institutional stakeholders raised several concerns and provided useful suggestions/recommendations. These are provided below.

- MEPCO should fulfill the regulatory requirement of conducting environmental assessment of all of its projects.
- The project proponent should develop organizational capability for the implementation of EMP, and to handle environmental as well as social issues during the project implementation as well as routine operation of the organization.
- The issues related to land acquisition and compensation should be appropriately addressed during the proposed project.
- Installation of the underground PVC cables should be considered near the grid stations in the congested urban areas.
- The construction related issues – such as waste disposal, soil erosion and hazards for the nearby communities – should be adequately addressed during the proposed project.
- The potential environmental issues during the operation and maintenance of the proposed project – such as soil and water contamination caused by the leakage/spillage of the PCB-containing transformer oil – should be adequately mitigated.
- MEPCO should have PCB testing arrangements at its grid stations and workshops.
- The PCB-containing transformer oil should be eliminated from the MEPCO system.
- The effects of electromagnetic radiation caused by the high power transmission lines should be appropriately addressed during the proposed project.
- The possible obstruction to the avifauna caused by the transmission lines, particularly while passing over the rivers should be addressed during the project.

4.6 Grass Root Stakeholders Consultations

The grass root consultations were carried out at the following project locations:

- Site for the Jail Road grid station in Multan
- Site for Suraj Miani grid station in Multan
- Site for Sahiwal III grid station in Sahiwal
- Site for Bahawalpur Cantt. grid station, Bahawalpur
- Site for Makhdumpur grid station
- Kot Addu – Chowk Azam transmission line route

- Kahrar Pecca – Lal Sohanra transmission line route
- Lal Sohanra – Khairpur Tamewali transmission line route
- Khairpur Tamewali – Hasilpur transmission line route.

Exhibit 4.3 presents list of the discussants and the key issues raised during the consultations. The questionnaire used during the consultations is provided in **Exhibit 4.4**. A summary of these consultations is presented below; details of the consultations are provided in **Appendix D** of the ESA report.

Jail Road Grid Station Site, Multan

During the consultations, people of the area complained about low voltage, frequent interruptions and voltage fluctuations in the area which was causing a lot of hardship as well as damage to the electric appliances. This situation also affected the livelihood of the local population, as shared by the people interviewed. The interviewee shared their grievance about corruption in WAPDA due to their negligence on issues related with the repair and maintenance of the faulty systems. Another of the common complaint shared by the people of the area was over-billing by the Utility.

The people of the area generally supported the plans for the new grid station, and preferred to have a dedicated feeder for their neighborhood.

The main concerns shared by the consultees regarding the proposed project included the risk of electrocution associated with the transmission lines that would pass through the congested areas.

Consultations were also held with staff from an industrial unit in the area. They also complained about the low voltage and frequent power interruptions, causing production loss as well as damage to the equipment. They welcomed the establishment of the new grid station in the area. In their opinion, the improved power availability will not only solve the above-described problems, but will also enable them and other industries in the area to enhance their production capacity, thus increasing their profits while also providing additional employment opportunities.

Suraj Miani Grid Station Site, Multan

The people of the area complained about low voltage, frequent interruptions and voltage fluctuations in the area which was causing a lot of hardship as well as damage to the electric appliances. Load shedding was cited as one of the problems faced by the people as well. The residents of the area also informed about occurrence of sparking at the existing electricity wires passing through the locality. They also shared their grievance associated with the over-billing by the Utility.

Regarding the establishment of the new grid station as a part of the proposed project, the people were averse to the idea of installing transmission line towers in the cultivation fields of the area. They suggested that the transmission line should generally follow the existing road alignment, thus avoiding any built-up area or the cultivation fields.

Sahiwal III Grid Station Site, Sahiwal

Much like the consultees in Multan, the people interviewed at the proposed site for the Sahiwal III grid station complained about low voltage, frequent power outages, faulty meters and over billing. The area being under cultivation, the crops suffered as a result of power outages and load shedding.

The people were in general supportive of the establishment of the proposed grid station at the site. Their concerns included the privacy and safety issues during the construction activities, since their women worked in the fields.

Some of the respondents suggested that a dedicated feeder be installed for their village.

Bahawalpur Cantt Grid Station Site, Bahawalpur

The residents of the area complained about low voltage, frequent interruptions and voltage fluctuations in the area which was causing a lot of hardship as well as damage to the electric appliances. Load shedding was cited as one of the problems faced by the people as well.

The people were generally supportive of the MEPCO's initiative to establish the new grid station in the area, and expected the Utility to incorporate all standard safety measures in the system.

The officials from the nearby Bahawalpur Airport were however not supportive of the new grid station to be established at the proposed site. Their apprehensions included obstruction caused by the transmission line towers in the flight path, electromagnetic radiation disturbing the navigation of aircrafts, and increased bird activity as a result of improper waste disposal at the proposed grid station. They strongly suggested that MEPCO should inform the Civil Aviation Authority of its plans, and obtain necessary approvals, before the work can be started on the grid station.

Makhdumpur Grid Station Site

The people interviewed at the proposed site for the Makhdumpur grid station complained about low voltage, frequent power outages, faulty meters and over billing. The area being under cultivation, the crops suffered as a result of power outages and load shedding.

The people were in general supportive of the establishment of the proposed grid station at the site. Their concerns included the privacy and safety issues during the construction activities, since their women worked in the fields. The landowners expected fair, market-based price for the land.

Kot Addu – Chowk Azam Transmission Line Route

A settlement exists near the Kot Addu grid station. The transmission line from Kot Addu to Chowk Azam passes over this settlement. This transmission line is proposed to be upgraded from single circuit to double circuit, using the existing towers, as part of the proposed project. The residents of this settlement were consulted as part of the stakeholder consultations.

The respondents were unanimous regarding the danger this transmission line poses while passing over their houses. Their concerns included their inability to construct

higher buildings, owing to the low height of the transmission line. While they acknowledged that the transmission line was constructed before the settlement was established, they nonetheless desire the transmission line to be re-routed, avoiding the settlement.

Kahrer Pecca – Lal Sohanra Transmission Line Route

The people interviewed along the proposed route complained about low voltage, frequent power outages, faulty meters and over billing. The area being under cultivation, the crops suffered as a result of power outages and load shedding.

The people were in general supportive of the proposed project. Their concerns included compensation for damaged crops during the construction phase.

Lal Sohanra – Khairpur Tamewali Transmission Line Route

The people interviewed along the proposed route complained about low voltage, frequent power outages, faulty meters and over billing. The area being under cultivation, the crops suffered as a result of power outages and load shedding.

The people were in general supportive of the proposed project. Their concerns included compensation for damaged crops during the construction phase.

The wildlife officials interviewed (since the Lal Sohanra National Park is in the vicinity of the route) did not share any concern regarding the proposed project. (They however complained about frequent power failures at the 11-KV feeder passing through the National Park, caused by the tree branches close to the feeder.)

Khairpur Tamewali – Hasilpur Transmission Line Route

The people interviewed along the proposed route complained about low voltage, frequent power outages, faulty meters and over billing. The area being under cultivation, the crops suffered as a result of power outages and load shedding.

The people were in general supportive of the proposed project. Their concerns included compensation for damaged crops during the construction phase. They also expected the transmission line to avoid their homes and settlements.

Exhibit 4.1: Participation Framework

Project Stage	Proposed Tool	Stakeholders Consulted	Responsibility
Project Design Phase	Meetings with institutional stakeholders (carried out during the ESA); Meetings with grass root stakeholders (carried out during the ESA) (See Section 4.3 for a list of key stakeholders.)	Institutional stakeholders; Grass root stakeholders, including the communities to be affected during the project implementation.	ESA consultant.
Project Construction Phase	Sharing of the Resettlement Plan with the affected communities (and other stakeholders).	Institutional stakeholders; Grass root stakeholders, including the communities to be affected during the project implementation.	(Environmental Social Inspectors (ESI); Environmental and Social Monitors (ESM) (Roles and responsibilities of ESI and ESM are defined later in the document).
	Grievance Redressal Mechanism and Social Complaint Register (discussed later in the document).	The affected communities.	ESI; ESM.
	Consultations with the communities during Compliance Monitoring and Effects Monitoring (discussed later in the document).	Affected communities.	ESI; ESM.
	Fortnightly meetings at the site.	MEPCO site staff; Contractors.	ESI; ESM.
	Consultations with the project affectees / communities during the external monitoring (discussed later in the document).	Affected communities.	External monitoring consultant.
	Consultations with the project affectees / communities during the site visits by the WB monitoring mission.	MEPCO site staff; Contractors; The affected communities.	WB monitoring mission.

...Cont'd. Exhibit 4.1.

Project Stage	Proposed Tool	Stakeholders Consulted	Responsibility
Project Operation Phase	Liaison with the communities around the grid stations; Liaison with the communities along the transmission line routes.	The communities around the grid stations and along the transmission line routes.	MEPCO O&M staff; MEPCO Environmental and Social Cell (discussed later in the document).
ESAs and RP development of subsequent phases of the 6 th STG Project.	Meetings with institutional stakeholders; Meetings with grass root stakeholders.	Institutional stakeholders; Grass root stakeholders, including the communities to be affected during the project implementation; Affectees of the previous phase of the project (ie, 6 th STG Project, 2006-07).	ESA Consultant.

Exhibit 4.2: Conceptual Framework

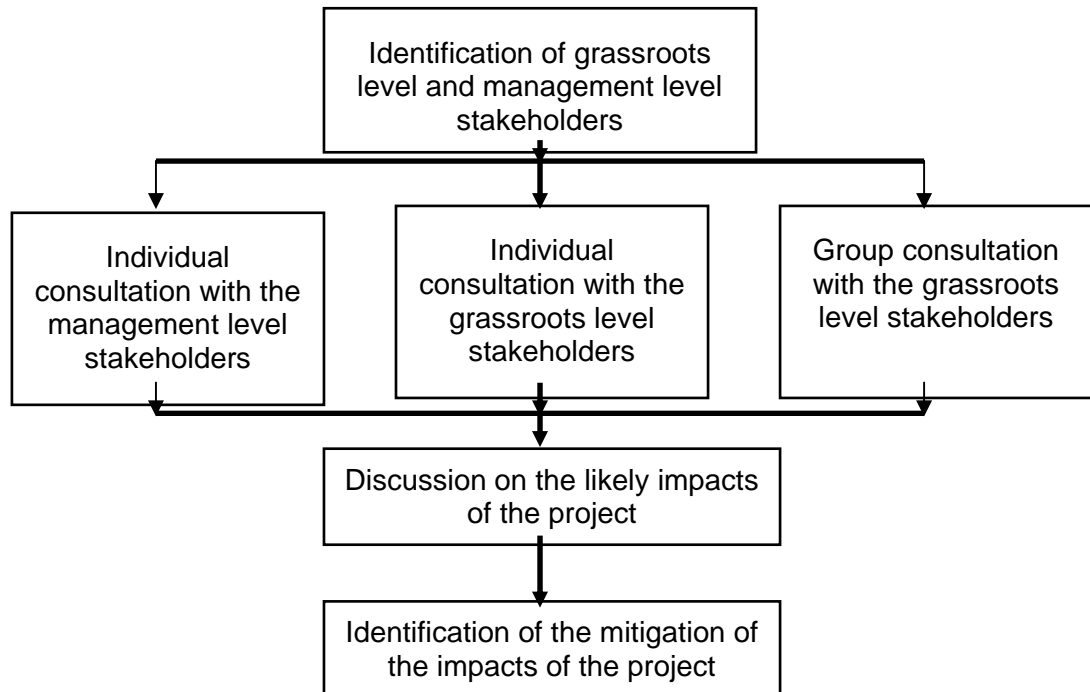


Exhibit 4.3: List of Participants during Grass Root Consultations

Location	Number of Participants	Key Issue Discussed
Multan (near Jail Road grid station site)	15 Residents of the area; Shopkeepers; Staff of two industrial units	Inadequacy of the existing power supply in the area; Safety hazard caused by the transmission line and feeders, for the people of the area. Demand of separate feeders for the area.
Multan (near Suraj Miani grid station site)	12 Residents of the areas; Farmers; Shopkeepers.	Frequent power failures and voltage fluctuation; Safety hazard caused by the transmission line and feeders, for the people of the area. The farmers of the area were averse of the possibility of transmission line towers to be installed in the cultivation fields, during the proposed project.
Sahiwal grid station site and adjoining areas	30 Residents of a nearby villages; Farmers; Staff at the nearby brick kiln.	Frequent power failures and voltage fluctuation; Possibility of dedicated feeder for the area. No apprehensions on the proposed project.
Bahawalpur Cantt, Grid Station	20 Residents of the nearby village; Staff at the nearby grain storage; Staff at the Bahawalpur airport.	Frequent power failures and voltage fluctuation; Over billing; Safety precautions to be taken during the project works; Apprehensions regarding the site in the vicinity of the airport, thus possibly causing hazards for the air traffic.
Lal Sohanra National Park	5 Staff of the National park	The officials confirmed that the transmission line route (or any other project component) was well outside the National park; No apprehension on the proposed project.

...Continued Exhibit 4.3.

Location	Number of Participants	Key Issue Discussed
Bahawalgarh Village (near Kehror Pecca)	12 (farmers, teacher, workers at the shops and daily wage earners)	Low voltage, persistent load shedding and frequent power shut down; No apprehensions on the proposed project. The damage to crops should be minimized during the project. The transmission line towers should avoid the cultivation fields. Tower design should allow cultivation underneath them.
Hameedabad Village (near Khairpur Tamewali)	7 Patwari and farmers of the village.	No electricity in the village; No apprehension on the proposed project.
Kot Addu – Chowk Azam Transmission Line	25 Residents of the settlement under the transmission line; Farmers along the transmission line; School teachers.	Safety hazards caused by transmission line. Low voltage, persistent load shedding and frequent power shut downs. Complaints of noise from the transmission line (chattering), corona and interference with the electrical appliances. Low height of the transmission line, thus not allowing the residents to construct higher buildings. Harmful effects of the electromagnetic radiation.
Makhdumpur Grid Station Site	7 Farmers and residents of the nearby village	Low voltage, load shedding and frequent power shut down; No apprehensions on the proposed project.
Along the route for the Makhdumpur grid station feed	10 Farmers and residents of the nearby villages/deras	Low voltage, load shedding and frequent power shut down; Damage to the crops caused by the construction activities.
Along the route for the Head Sidhnai grid station feed.	12 Farmers and residents of the nearby villages/deras	Minimize the damage to the crops caused by the construction activities. Towers should avoid the cultivation fields. Tower design should allow the cultivation underneath them.

Exhibit 4.4: Checklist used for Stakeholder Consultations

-
1. Overview of basic necessities of livelihood available in the area other than the proposed project (e.g sources of water supply, availability of electricity, sources of fuel wood, means of communication, availability of health and educational facilities, technical and vocational training centers, sources of information)?
 2. Does the proposed project strengthen the social network already existing in the area or affect it?
 3. Who are the people affected by the project with categories of persons and intensity of impacts?
 4. Are directly affected stakeholders agreeable to allow the project?
 5. What are the social benefits of the proposed project like provision of electricity to majority of the people, if not all, and stability of electricity in the area at large?
 6. What social issues/ losses will be triggered as a result of the project intervention (e.g loss of land, loss of livelihood, bifurcation of land, any risks associated with human and animal health etc)
 7. Any commercial activities affected in the visited area due to this project?
 8. Apprehensions of the visited communities and their suggestions for the improvement of the proposed project.
-

5 Key Socioeconomic and Resettlement Issues

The proposed project's adverse socioeconomic impacts and resettlement aspects have been assessed and their mitigation identified in **Chapter 9** of the ESA report. The key issues are summarized in this chapter.

5.1 Project Area Profile

The project area lies in the Upper Indus Plain, which essentially forms the western extension of Indo-Gangetic Plain. The Indus Plain has been made up of the silt brought by the Indus and its numerous tributaries, such as Jhelum, Chenab, Ravi and Sutlej on the east bank, and Kabul, Kurram, Tochi, and others on the west bank. The Indus Plain is known for its agricultural fertility and cultural development throughout history. The Upper Indus Plain consists of four river interfluvies, the Bahawalpur plain and the Sulaiman piedmont.

The main rivers that flow through the project area include Indus, Chenab, Ravi and Sutlej. However, under the Indus Basin Treaty, India has rights over the waters of Ravi and Sutlej.

The agriculture is by far the main economic activity in the project area, which lies within the Indus Basin Irrigation system – one of the most extensive canal irrigation systems in the world. The groundwater extraction augments the canal water for irrigation in the area.

Ecologically, the project area can be divided in three broad ecozones: tropical thorn forest ecozone, riverine forest ecozone and desert habitat. However, urban centers, villages and agriculture activities have greatly modified these ecozones in most parts of the project area. Whatever wild species now found in the area are essentially those which have adapted to the modified conditions and presence of human beings.

Administratively, the project area falls under thirteen districts of the Punjab Province — Multan, Sahiwal, Khanewal, Vehari, Pakpattan, Bahawalnagar, Layyah, Muzaffargarh, Dera Ghazi Khan, Rajanpur, Lodhran, Bahawalpur and Rahim Yar Khan.

5.2 Socioeconomic Impacts during Design Phase

The following aspects should be considered during the design of the proposed project, in order to improve the social performance of the project.

Impacts	Likely Causes for Proposed Project	Measures to be Incorporated in Project Design
Resettlement Issues	Poor site selection; Poor route alignment	<ul style="list-style-type: none"> The grid stations to be established during the proposed project will be located in open areas, free of any existing structure.

Impacts	Likely Causes for Proposed Project	Measures to be Incorporated in Project Design
		<ul style="list-style-type: none"> ■ The transmission line routes included in the proposed project will be selected avoiding settlements, buildings, other structures. And cultivation, as far as possible, thus minimizing the resettlement issues (Resettlement is discussed later in the Chapter).
Safety hazards and public health concerns	Poor site selection; Poor route alignment; Inappropriate equipment selection (such as PCB-containing transformers)	<ul style="list-style-type: none"> ■ All safety precautions will be taken to minimize the safety hazards and risk of accidental electrocution. These will include double periphery walls at the grid stations and appropriate clearance (between the live wires/connectors and the buildings/structures/trees). ■ Transmission lines will not be routed through the settlements as far as possible. Appropriate clearance will be maintained all along the transmission lines and feeders. ■ Appropriate waste disposal systems will be included in the design of the grid stations. These include sewage disposal, and if required, treatment system (such as septic tank). ■ PCB-free transformers will be selected for the project. (This aspect is already included in the MEPCO's transformer specifications.) ■ The transmission line routes will avoid passing over the buildings.
Aesthetic value	Intrusion in the natural landscape	<ul style="list-style-type: none"> ■ Tree plantation will be carried inside and at the periphery of the grid stations, without compromising the safety aspects (ie, required clearances will be maintained). For this purpose, provision will be made in the site layout. ■ Transmission lines and feeders through the cities will be constructed after astute planning, in order to avoid dense concentration of electrical lines.

5.3 Socioeconomic Impacts and Mitigation during Construction Phase

The key socioeconomic impacts associated with the construction phase of the proposed project and recommended mitigation measures are provided in the following table.

Impacts	Mitigation
Land acquisition and damage to crops	<ul style="list-style-type: none"> ■ Land for the grid stations will be procured directly from the landowners on <i>willing seller – willing buyer</i> basis. The price will be mutually agreed, based upon the market price. The seller will have the right of refusal and the entire process will be documented. ■ Compensation will be paid for the crops damaged during the construction activities. The compensation will be paid to the cultivator, and absence of the land title will not be a bar to receiving the compensation. ■ It will be ensured that the land under the 132-KV transmission line tower remains available and accessible for cultivation. ■ In case the above is not possible, the land under the tower will be acquired in accordance with the LAA procedures (Section 17.4 of the LAA will not be used). ■ The 11-KV feeders will be routed along the existing right of ways or roads, avoiding any existing structures. The cultivated fields will also be avoided as far as possible. In case, it is not possible, damage to crops will be compensated. ■ Operation of project vehicles and construction machinery outside the RoW will be avoided. Attempts will be made to use existing tracks/roads to access the transmission line corridor/tower locations. In case new access routes are necessary, the cultivated land will be avoided as far as possible. Damage to crops will be compensated. ■ Grievance redressal mechanism will be put in place to address the community complaints.

Impacts	Mitigation
Blocked access	<ul style="list-style-type: none"> ■ In case of the blockage of the existing routes, alternate routes will be identified and provided in consultation with affected communities.
Noise	<ul style="list-style-type: none"> ■ Vehicular traffic through the communities will be avoided as far as possible. Project routes will be authorized by the MEPCO. ■ Vehicle speeds will be kept low, and horns will not be used while passing through or near the communities. ■ Vehicles will have exhaust silencers to minimize noise generation. ■ Nighttime traffic will be avoided near the communities. ■ Movement of all project vehicles and personnel will be restricted to within work areas, to avoid noise disturbance. ■ Working hours for construction activities within the communities will be limited to between 8 am and 6 pm. ■ Liaison with the community will be maintained. Grievance redressal mechanism will be put in place to address the community complaints, as stated earlier.
Safety hazard	<ul style="list-style-type: none"> ■ The construction sites will have protective fencing to avoid any unauthorized entry. ■ The project drivers will be trained for defensive driving skills (environmental trainings are described in Chapter 10). ■ Vehicular speeds near/within communities will be kept low to minimize safety hazards. ■ Construction camp sites will be located at least 500 m away from the nearest community. Camp sites will be selected with MEPCO's approval. The camps will have periphery fencing to avoid any unauthorized entry. ■ Firefighting equipment will be made available at the camps. ■ The camp staff will be provided fire fighting training. ■ All safety precautions will be taken to transport, handle and store hazardous substances, such as fuel. ■ Liaison with the community will be maintained. In particular, the nearby communities will be informed before commencing the testing commissioning of the system. Protective fencing will be used where appropriate/possible. Awareness raising program will be implemented to educate the communities regarding the hazards associated with the transmission lines, feeders and other electrical systems/equipment. Warning signs will be used at the

Impacts	Mitigation
	appropriate locations.
Public Health Issues	<ul style="list-style-type: none"> ■ The construction camps will have septic tanks and soaking pits of adequate size. ■ Camps will be at least 500 m from any groundwater wells used by the community. ■ The construction camps will have appropriate solid waste disposal mechanism. ■ The construction camps and site offices will have first-aid kits. ■ The construction crew will be provided awareness for the transmissible diseases (such as HIV/AIDS, hepatitis B and C).
Damage to infrastructure	<ul style="list-style-type: none"> ■ All damaged infrastructure will be restored to original or better condition.
Gender issues	<ul style="list-style-type: none"> ■ The routes used by the women will be avoided as far as possible. If unavoidable, alternate routes to be identified for the communities, if required, especially along routes frequented by women folk, such as route to the local well or water source.
Social Issues	<ul style="list-style-type: none"> ■ Camp sites for construction will be 500 m away from the nearest community, as recommended earlier. ■ Construction crew will avoid in entering villages and settlements. ■ Communities will be informed and consulted before commencing works inside or near the communities. ■ Strict code of conduct will be maintained by the construction crew. Local norms will be respected. ■ Child labor will not be allowed at any of the construction sites or campsites.
Impacts on Sites of Historical, Cultural, Archeological or Religious Significance	<ul style="list-style-type: none"> ■ In case of discovery of any sites or artifacts of historical, cultural, archeological or religious significance, the work will be stopped at that site. ■ Relocation of such project components will be carried out if feasible. ■ The provincial and federal archeological departments will be notified immediately, and their advice will be sought before resumption of the construction activities at such sites. ■ The existing graveyards will not be damaged. The construction work close to the graveyards will be carried out after informing/consulting the relevant communities.

5.4 Affected Persons and Assets

The land affected by the project activities comprises the following:

- Grid station sites
- The transmission line corridor
- Access routes.

Exhibit 5.1 summarizes the land requirement for the project.

About 20 acres of land for the proposed grid station sites will be purchased directly from the owners on *willing seller – willing buyer* basis. The price will be mutually agreed. It will be ensured that the seller has the right of refusal. The entire process will be documented.

During the transmission line laying, any crops falling within the 30-m construction right of way (RoW) will be damaged. MEPCO will pay compensation for this crop damage to the affected landowners/cultivators. A summary of the crop damage and the estimated compensation amount is provided in **Exhibit 5.2** (details of the landownership and compensation amounts are provided in **Appendix A** of this document).

Crop compensation for new transmission lines has been estimated based upon wheat crop for two seasons – assuming that the construction activities will continue for two crop-seasons. The crop compensation for adding another circuit to the Kot Addu – Chowk Azam transmission line has been calculated for one season only.

The community properties, physical infrastructure or sites of religious importance (such as mosques, graves and shrines) will not be affected by the construction activities, as identified by the ESA study.

Exhibit 5.1: Summary of Land to be Acquired for the Project

Description	Land Take	Mode of Acquisition / Compensation	Number of Landowners / Affectees
New grid stations (qty: 5)	20 acres (4 acres for each grid station) (permanent land take)	Land to be directly purchased from the owners on mutually agreed price.	4 (Bahawalpur Cantt. grid station site is State-owned)

Exhibit 5.2: Summary of Affected Land and Estimated Compensation

	Project Component	Cultivated Area to be Affected (Acres)	Number of Affectees	Compensation Amount (Rs.)
1	Khairpur Tamewali – Hasilpur Transmission Line	217	57	2,111,814
2	Lal Sohanra - Khairpur Tamewali Transmission Line	198	40	1,939,885
3	Lal Sohanra - Kehrora Pacca Transmission Line	147	150	1,416,150
4	Feed for Head Sidhnai Grid Station	55	43	535,451
5	Feed for Makhdumpur Grid Station	83	109	805,477
6	Kot Addu – Chowk Azam Transmission Line	639	270	2,817,368
	Total	1,339	669	9,626,145

6 Entitlement Principles and Framework

This chapter provides the resettlement principles and entitlement framework to be employed during the proposed project.

6.1 Principles of Resettlement Plan

So far, there is no specific policy on resettlement in Pakistan. The LAA deals with all aspects of land acquisition, and resettlement issues are addressed on project-by-project basis under special provisions made by the concerned Government, as mentioned above. In the absence of a formal policy to assist PAPs (including the non-titled persons), a project-specific set of resettlement principles has been adopted in this Project.

The basic resettlement principles and guidelines include the following:

- The PAPs are defined as those who stand to lose land, houses, structures, trees, crops, businesses, income, livelihood or access to assets/livelihood as a consequence of the proposed project activities.
- All PAPs are equally eligible for compensation and rehabilitation assistance, irrespective of land ownership status, to ensure that those affected by the project will be at least as well off, if not better off than they would have been without the Project.
- Absence of title will not be a bar for PAPs to receive compensation and rehab assistance except for compensation for land. Compensation for land will require a title.
- The compensation packages will reflect replacement costs for all losses (such as lands, crops, trees, structures, businesses, income, etc.).
- PAPs will be systematically informed and consulted about the project, and RP will be made available to the affected persons and communities.
- For land acquired under the LAA (1894), section 17(4) the emergency/urgency clause, will not be used in the absence of an emergency/urgency situation
- For land purchased, the concept of willing buyer/willing seller at market price and with consensus of both parties will be used. The seller will have the right of refusal.
- For land located under the towers, compensation will be paid for crops and only if the land becomes inaccessible and out of productive use, it will be purchased.
- All assets/infrastructure and livelihood negatively impacted will be compensated at replacement cost (salvage value will not be deducted).
- All community and religious sites affected by the project activities will be compensated or rebuilt.
- All public utilities affected/damaged by the project will be compensated.

- All trees affected by the project will be compensated and affectees allowed to salvage the trees.

6.2 Entitlement Framework for Proposed Project

As stated in **Section 5.3** above, damage to the crops is expected to be the only significant resettlement issue likely to arise during the proposed project. However, an entitlement framework has been developed to address other possible resettlement issues. The framework is tabulated in **Exhibit 6.1** and described below.

6.2.1 Loss of Agricultural Land

For the legal title holders, customary or usufruct rights holders, cash compensation of affected land would be paid on the basis of *willing seller-willing buyer* at the mutually agreed market value of the acquired land. The seller will have the right of refusal.

The tenants and sharecroppers will be compensated for the un-expired duration of the lease.

The vulnerable encroachers or squatters will be compensated for affected structure at the replacement cost.

6.2.2 Loss of Residential, Commercial or Institutional Land

The compensation entitlement in case of loss of residential, commercial or institutional land will essentially be similar to the one for the loss of agricultural land, described above. The PAPs with legal title holders, customary or usufruct rights will be compensated on the basis of *willing seller-willing buyer* at the mutually agreed market value of the acquired land.

The tenants will be compensated for the un-expired duration of the lease.

The vulnerable encroachers or squatters will be compensated for affected structure at the replacement cost.

6.2.3 Loss of Residential, Commercial or Institutional Structure

The owners of the affected structure, with or without legal title, will be entitled to cash compensation at the replacement value (salvage value of the structure will not be deducted). In addition, an allowance will also be paid to the owner for the repairs of the remaining structure, if any.

6.2.4 Loss of Common Resources and Facilities

In case of the loss of any common resources or facilities, the project will replace or restore the affected facility or resource, in consultation with the affected community.

6.2.5 Loss of standing crops

The affected cultivators will be entitled to cash compensation for the damaged crops calculated on the basis of market prices.

6.2.6 Loss of Trees

The owners of the affected trees, with or without land title, will be paid cash compensation, on the basis of market value of the trees according to the type, age, size and productivity of trees. The compensation for cutting fruit trees will be equal to 10 years of net income from the trees. In case the trees to be cut are located in an orchard, the compensation would be equal to 20 years of the net income from the affected trees.

6.2.7 Loss of Public Infrastructure

The project will pay cash compensation to the relevant agency based upon the replacement value of the affected infrastructure. Alternatively, the project will replace or restore the damaged infrastructure in the pre-project condition or better, in consultation with the concerned agency.

6.2.8 Loss of or Damage to Religious Sites

The project will pay cash compensation for the replacement cost of the religious sites, such as mosques. Alternatively, the project will construct the religious site, in consultation with the affected community. Project will also pay cash compensation for the relocation of graves/shrines.

Exhibit 6.1: Entitlement Framework

Type of Loss	Definition of Entitled Persons	Entitlement Policy	Responsibility
Loss of agriculture land ¹⁶	Legal users with valid title, customary or usufruct rights.	PAPs will be entitled to cash compensation for acquired land at market value, on 'willing buyer – willing seller' basis. If LAA is used, an amount of 15% will be added to the market price, in accordance with the LAA.	Tehsildar; Environmental and Social Inspector (ESI) (these are defined later in the document)
	Tenant, leaseholder and sharecropper	PAPs will be entitled to: reimbursement for un-expired lease.	Tehsildar; ESI
	PAPs without valid title (vulnerable ¹⁷ encroachers or squatters)	PAPs will be entitled to cash compensation for affected structures at replacement value.	Tehsildar; ESI
Loss of residential, commercial, industrial or institutional land	Legal users with valid title, customary or usufruct rights.	PAPs will be entitled to cash compensation for affected portion of land at replacement value, on 'willing buyer – willing seller' basis.	Tehsildar; ESI
	Tenant, leaseholder and sharecropper	PAPs will be entitled to reimbursement for un-expired lease.	Tehsildar; ESI
	PAPs without valid title (vulnerable encroachers or squatters)	PAPs will be entitled to cash compensation for affected structures at replacement value.	Tehsildar; ESI
Structures (residential, commercial, industrial or institutional)	Owners of affected structure, with or without legal title, customary or usufruct rights	PAPs will be entitled to: <ul style="list-style-type: none"> ○ Cash compensation for affected structures, or portion of the structure, at replacement value. ○ Allowance to cover the repair cost of the remaining structure. 	Tehsildar; ESI

¹⁶ In case of land acquisition, Section 17 of the LAA will not be used, in the absence of the emergency/urgency.

¹⁷ Vulnerable: below poverty line.

Type of Loss	Definition of Entitled Persons	Entitlement Policy	Responsibility
Loss of common resources and facilities	Communities/households	<ul style="list-style-type: none"> Replacement of the common property resources/facilities, in consultation with the affectees. Access to equivalent resources/facilities. 	Contractors; Environmental and Social Monitor (ESM); ESI.
Loss of standing crops	Households who cultivate the land	PAPs will be entitled to: <ul style="list-style-type: none"> Cash compensation equivalent to the market value of damaged crops. 	Tehsildar; ESI
Loss of trees	Owners of the affected trees (irrespective of the land title)	PAPs will be entitled to: <ul style="list-style-type: none"> Cash compensation equivalent to the market value of trees on the basis of type, age and productivity. The compensation for cutting fruit trees will be equal to 10 years of net income from the trees. In case the trees to be cut are located in an orchard, the compensation would be equal to 20 years of the net income from the affected trees. 	Tehsildar; ESI
Loss of public infrastructure	Relevant agencies	Compensation in cash at replacement cost to respective agencies, or Restoration/repair of the damaged infrastructure in a similar or better condition as before.	Contractors; ESM; ESI.
Loss of or damage to religious sites (eg, mosques, graveyards, shrines)	Community and affected households	Replacement cost for religious sites. Cost of removal of graves and all related costs for its relocation.	Contractors; ESM; ESI.

Notes:

1. Compensation for the affected structure will be calculated on the basis of the replacement cost at market prices, without taking salvage value into consideration.
2. All compensations will be paid before commencement of the construction activities.

7 Institutional and Implementation Arrangements

This chapter defines the institutional and implementation arrangements for the resettlement and other socioeconomic aspects of the proposed project.

7.1 Organizational Structure, Roles and Responsibilities

This section describes the organizational structure required for managing the social (as well as environmental) aspects of the proposed project. Also defined in this section are the roles and responsibilities of the various role players during the project.

7.1.1 Management Approach

MEPCO will establish an Environmental and Social Cell (ESC) within the Organization, in order to handle the environmental and socioeconomic matters during the proposed project, other future projects as well as its routine operations.¹⁸ The ESC will not be part of the proposed project organization, and will provide advisory services to the project and other MEPCO departments. Initially, the ESC will have one environmental and one socioeconomic expert of relevant qualification and experience; the strength can be increased in the future as required.

The role of the ESC and other key entities for the proposed project is described below.

MEPCO: The overall responsibility for compliance with the RP rests with the project proponents (MEPCO).

MEPCO's Environmental and Social Cell (ESC): The ESC will provide overall supervision and advisory services during the construction phase of the project. The ESC will supervise the MEPCO's environmental and social monitors (discussed below). The ESC will also advise GSC and other MEPCO departments on social (as well as environmental) matters during the project.

Contractor(s): The contractor(s) will be responsible for the construction activities of the project. The contractor(s) will be responsible for the implementation of the mitigation measures detailed in the RP and Environmental Management Plan (EMP)¹⁹, where relevant. The contractors will also ensure that the project is not put out of compliance with the Bank policies through their actions. The contractor(s) will also be subject to certain liabilities under the environmental laws of the country, and under its contract with MEPCO.

Other essential features of the institutional arrangement proposed for the project are:

- MEPCO will appoint a *Tehsildar* (Land Officer) and a *Patwari* (Land Revenue Clerk) for the implementation of the RP in the field. MEPCO will also appoint Environmental and Social Inspectors (ESIs) for overseeing and monitoring the entire implementation of the RP.

¹⁸ The cost of ESC will not be included in the proposed project.

¹⁹ The EMP is provided in the ESA report in its **Chapter 10**.

- In case MEPCO appoints Supervision Consultant, the ESIs will be appointed by the Consultant (instead of MEPCO).
- The RP as well as environmental/socioeconomic management requirements and specifications will be included in all contracts MEPCO and its contractors/consultants execute.
- Each contractor will be required to appoint a dedicated field Environmental and Social Monitor (ESM) at the project site.
- MEPCO, through the ESC, will cooperate with regulatory agencies (such as the Pak-EPA) or other stakeholders who may want to visit the project sites and review the project activities.

7.1.2 Organizational Structure and Responsibilities

The organizational structure for the construction phase of the project is shown in **Exhibit 7.1**, and its salient features described below.

1. Primary responsibilities:

- ▶ The Grid Station Construction (GSC) Department through its Project Director (PD) will be responsible for the project's compliance with the RP, ESA and EMP throughout the project. The ESC will assist GSC Department and will provide policy support in all environment and socioeconomic matters.
- ▶ The Supervision Consultant (if MEPCO chooses to employ one) through its Resident Engineer (RE) will be responsible for ensuring that the contractors adhere to the quality requirements and other commitments including implementation of the RP, EMP and ESA.
- ▶ The contractors' Chief Executive Officer or Country Manager will assume the main responsibility for all environmental and socioeconomic matters pertaining to their work.
- ▶ The PD will coordinate with relevant government departments (Pak-EPA) and other stakeholders through the ESI.
- ▶ The contractor(s) will ensure that his/their actions do not put the project out of compliance with regards to the RP implementation and WB safeguard policies.

2. Field management and quality control:

- ▶ Carrying out construction activities in an environmentally and socially sound manner during the construction phase will be the responsibility of the site managers of the contractor(s).
- ▶ The GSC's site incharge (or RE, if the Supervision Consultant is employed) will be responsible for the environmental and social soundness of all construction activities.

3. On-the-job supervision and monitoring:

- ▶ MEPCO will appoint a *Tehsildar* at the site, who will have the prime responsibility for the RP implementation related to compensation of land and other assets. The *Tehsildar* will be assisted by a *Patwari*, in matters relating to determining land ownership, assessing crop damage and determining compensation amounts.

- ▶ The ESI will oversee implementation of the RP in the field. He will coordinate with the PD, the *Tehsildar* and the contractor's project management and ESM of each contractor. ESI will be part of MEPCO's site organization if no Supervision Consultant is employed. Otherwise, the ESI will be part of the Supervision Consultant's site staff.
- ▶ If any external monitoring teams visit the sites during the field activities, the ESI will be responsible for coordinating their visits.

The responsibilities of various role players are summarized in **Exhibit 7.2**.

7.2 RP Implementation Procedure

A stepwise procedure is provided below for the implementation of RP during the proposed project.

- The *Tehsildar* and *Patwari* will move to the site at the time of mobilization.
- Immediately after the exact marking of the transmission line route and tower locations, the *Patwari* will identify the cultivated area falling under the construction RoW and, if needed, update the data collected during the ESA (see **Section 5.3** above; details provided in **Appendix A**).
- *Patwari* will reconfirm the ownership of the cultivated land falling under the RoW. For this purpose, coordination with the local *Patwari* of the area may also be needed. The revenue records (*latha*) will be consulted if required.
- *Patwari* will identify the type of crop that will be damaged during the construction activities. *Patwari* will also identify the trees that will need to be cut for the transmission line construction.
- The *Tehsildar* and *Patwari* will determine the compensation amount to be paid to each of the PAPs. For this purpose, coordination with the local district government officials (such as EDO-Revenue) will also be maintained.
- On the basis of the above, the PAPs list (developed at the ESA stage and attached in **Appendix A** of this document) will be revised.
- The PAPs list thus prepared will be shared with the key project staff, and the affected communities.
- The compensation will be paid before any construction activities commence. A receipt will be obtained from each PAP for the payment.
- A complete record will be kept for the PAPs receiving the payments including names, National Identity Card numbers, receipts and PAPs' photographs.
- For any crop damage not included in the PAPs list prepared by the *Tehsildar* and *Patwari*, similar procedure as described above for the compensation estimation will be employed. Compensation will be paid to such PAPs as soon as the estimates are available.

- Any damage to infrastructure/public utilities will be assessed by ESI with the help from the contractor's engineers. The ESI will be responsible to coordinate with the relevant agency and/or community. Cash compensation will be paid to the relevant agency for the damaged infrastructure or public utility. Alternatively, the contractor will repair/restore the damaged infrastructure or public utility, in consultation with the concerned agency.
- Any damage to community asset will be assessed by ESI with the help from the contractor's engineers. The ESI will be responsible to coordinate with the relevant community. Cash compensation will be paid to the affected community for the damaged asset. Alternatively, the contractor will repair/restore the damaged asset, in consultation with the affected community.
- Any damage to the religious sites (such as mosques/shrines) will be assessed by ESI with the help from the contractor's engineers. The ESI will be responsible to coordinate with the relevant affected community. Cash compensation will be paid to the relevant community for the damaged site. Alternatively, the contractor will repair/restore the damaged religious site, in consultation with the affected community. If required, cost of relocating the graves will be paid to the affected community.
- A complete record will be maintained for the above procedure, and made available at the project sites.

7.3 Communication and Documentation

An effective mechanism for storing and communicating relevant information during the project is an essential requirement of an RP. The key features of such a mechanism are:

- Recording and maintenance of all information generated during the monitoring in a predetermined format.
- Communicating the information to a central location.
- Storing raw information in a central database.
- Processing the information to produce periodic reports.

A description of the various components of the communication and documentation system is given below.

7.3.1 Data Recording and Maintenance

The forms to be used for recording information during the social monitoring will be developed by the ESI, under the supervision of ESC. These forms will follow a standard format, which will correspond to the database into which all the information gathered will be placed. All common fields will have identical formats in the database and on the forms. Check boxes will be used as much as possible for ease in filling out the forms and to facilitate data entry.

All forms will be numbered and a tracking system will be developed for each. Whenever a form is released for use in the field, its number will be recorded. The field staff will be

required to account for each form after completion. In this manner, it will be ensured that all forms are returned to the office.

7.3.2 Meetings

The following social (and environmental) meetings will take place during the project:

- Project initiation meetings (one each for each of the contractors).
- Fortnightly meetings.²⁰

These are described below.

Project Initiation Meeting

The purpose of the project initiation meetings will be to ensure that the requirements given in the RP and EMP are fully understood, and to ensure full commitment from concerned parties for their implementation.

Attendees: The meeting will be attended by all relevant staff, including PD, GSC's site incharge, contactors' site managers, ESI, ESM, *Tehsildar* and representative of ESC.

Fortnightly Meeting

A periodic meeting will be held at site during the construction phase. The purpose of the meetings will be to discuss the conduct of the operation, non-compliances noted by the ESI or Contractors' ESMs. The remedial measures will also be discussed and agreed during these meetings.

Attendees: The meeting will be recorded in the form of a report prepared by the ESI. The meetings will be attended by the GSC' site incharge (or RE if MEPCO appoints Supervision Consultant), Contractors' site managers, ESI, ESM and *Tehsildar*.

7.3.3 Reports

The ESI will produce periodic reports based on the information collected. These will include reports for:

- Project initiation meetings with each contractor,
- Fortnightly meetings,
- Compliance monitoring (Non-compliances),
- Effects monitoring.

At the end of the construction phase, a final report will also be prepared.

7.4 Grievance Redressal Mechanism

An attempt has been made during the ESA and while developing the RP, to identify all potential impacts of the proposed project, to identify all PAPs, to provide mitigation measures to address the potential impacts, and to chart out a mechanism to implement these mitigation measures (including payment of compensation).

²⁰ Frequency of meetings may be adjusted per the situation.

However during the project implementation, the stakeholders (mostly the communities in the vicinity of the project sites/transmission line routes) may still have some grievances with respect to the project activities, their impacts, compensation and other mitigation measures. The key reasons of these grievances are listed below:

- PAPs not enlisted,
- Losses (such as damaged crops) not identified correctly,
- Compensation inadequate or inappropriate,
- Dispute about ownership,
- Delay in disbursement of compensation,
- Improper distribution of compensation in case of joint ownership
- Any other issue arising during the project implementation.

In order to address the above eventualities, the Grievance Redressal Mechanism (GRM) has been devised. The main objective of the GRM will be to provide a mechanism to mediate conflict and cut down on lengthy litigation, which often delays the infrastructure projects such as the 6th STG. It will also facilitate people who might have objections or concerns about their assistance, a public forum to raise their objections and through conflict resolution, address these issues adequately. The main functions of the GRM will be as follows:

- Provide a mechanism to the PAPs on problems arising as a result of project activities,
- Record the grievance of the PAPs, categorize and prioritize the grievances that need to be resolved, and
- Report to the aggrieved parties about the developments regarding their grievances and the decision of the project authorities.

Under the GRM, the ESI will maintain the Social Complaint Register (SCR) at the sites to document all complaints received from the local communities. The information recorded in the Register will include date of the complaint, particulars of the complainant, description of the grievance, actions to be taken, the person responsible to take the action, follow up requirements and the target date for the implementation of the mitigation measure. The register will also record the actual measures taken to mitigate these concerns.

As soon as a complaint is received, the ESI will discuss it with the ESMs, and determine the remedial action. If required, consultations will also be undertaken with the contractor's site managers and GSC's PD. Once the remedial action is decided, implementation responsibility as well as schedule will be determined.

The proposed remedial action will be documented in the SCR, with complete details (by whom and by when). The proposed remedial action will be shared with the complainant. Similarly, the actual action taken will also be documented in the Register and shared with the complainant. The complainant's views on the remedial action taken will also be documented in the Register.

The SCR will be reviewed during the fortnightly meetings at the site during the project, and the action items discussed. The progress on the remedial actions will also be reviewed during the meetings.

The Register will also be shared with the PD and ESC, on regular basis, for information and further action, if any.

In order to address any unresolved grievances at a higher level of the organization, a Grievance Redressal Committee (GRC) will be constituted. The Committee will be headed by the PD, with ESI and the ESC social expert its other members. A non-project person acceptable to all parties will also be member of this Committee. Any un-resolved issue will be sent to the Committee for determining the remedial action.

The GRM's roles, responsibilities, implementation mechanism and timeframe are explained in **Exhibit 7.3**.

7.5 Environmental and Social Trainings

Environmental and social trainings will help to ensure that the requirements of the RP, ESA and EMP are clearly understood and followed by all project personnel throughout the project period. The primary responsibility for providing training to all project personnel will be that of the ESI. The environmental and social training program will be finalized before the commencement of the project, during the detailed design phase. The training will be provided to the MEPCO staff, the construction contractors, and other staff engaged for the project. Training will cover all staff levels, ranging from the management and supervisory to the skilled and unskilled categories. The scope of the training will cover general environmental awareness and the requirements of the ESA and the EMP, with special emphasis on sensitizing the project staff to the environmental and social aspects of the area. **Exhibit 7.4** provides types of trainings and target groups. Additional trainings may be provided as and when required.

7.6 Public Disclosure

MEPCO will disclose the RP to all the stakeholders at the commencement of the proposed project. A Summary of RP will be prepared specifically for this purpose and translated into Urdu language, and provided to the affected communities (and also kept at the project sites). This will ensure that the local communities are aware of the project's benefits and provisions available for various types of PAPs, as given in the entitlement framework (**Section 6.2**). In addition, the Summary RP will be disclosed through the MEPCO's official websites.

Exhibit 7.1: Organizational Structure for Environmental and Social Management

(Please see the following page.)

Organizational Structure for Environmental and Social Management

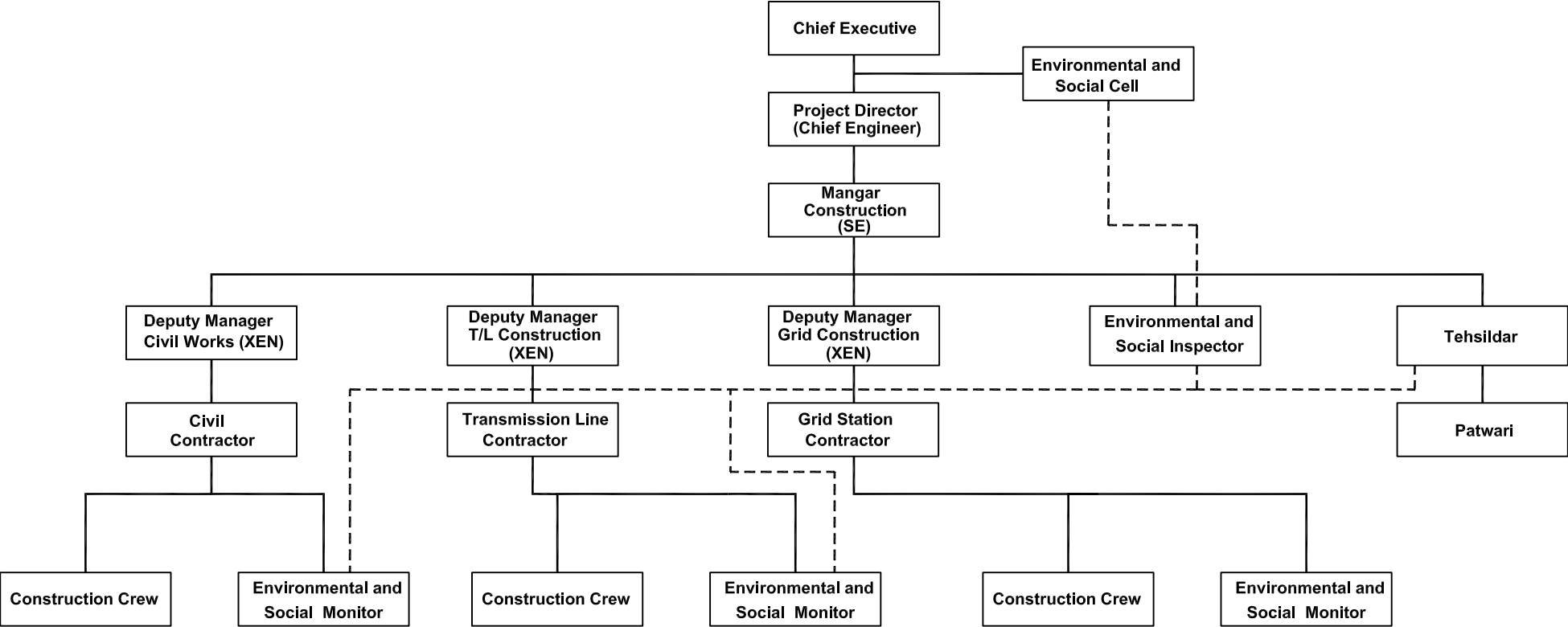


Exhibit 7.2: Roles and Responsibilities

Organization	Designation	Responsibilities
Environmental and Social Cell	Environmental and Social Experts	Advise GSC and other MEPCO departments on matters relating to environment and social aspects of the project. Advise and support ESI for the implementation of RP, ESA and EMP.
Grid Station Construction (GSC) Department	PD	Fulfill MEPCO's and GSC's obligations as laid out various project documents. Ensure that the construction is carried out within the agreed timeframe according to satisfactory HSE and technical standards.
	Site Incharge (or RE if Supervision Consultant is employed)	Facilitate field management of contractors; Report regularly to the Project Manager and PD.
	Environmental and Social Inspector (ESI)	Ensure that the entire project is conducted in an environmentally friendly manner. Ensure compliance with all relevant environmental laws. Facilitate full implementation of RP, EMP and ESA requirements during the project. Assist the PD and Project Manager in fulfilling MEPCO's and GSC's environmental responsibilities and keep them updated on environmental matters relating to the construction. Review environmental reports (ER), and ensure implementation of corrective measures, if any. Coordinate with other stakeholders, including relevant EPAs. Ensure that the project operations comply with EMP, RP.
	<i>Tehsildar</i>	Ensure the implementation of the crop compensation in accordance with the RP, with <i>Patwari's</i> assistance.
Contractors	Site Manager	Manage construction activities, manage construction crew, camp crew and other site personnel, in an environmentally responsible manner; Liaise with GSC's Project Manager; Liaise with GSC's Site Incharge.
	Environment and Social Monitoros (ESM)	Manage the implementation of mitigation measures given in the ESA and EMP; Manage implementation of entire EMP; Report regularly to Site Manager; Liaise with ESI; Provide environmental training to construction crew. Ensure that the project operations comply with EMP, RP.

Exhibit 7.3: Grievance Redressal Mechanism

<i>Stage/Description</i>	<i>Action</i>	<i>Action By</i>	<i>By When</i>	<i>Monitoring By</i>	<i>Notes</i>
Mobilization at site	Placement of Social Complaint Register (SCR) at the site office	ESM	At the time of site mobilization.	ESI	The SCR will have separate columns for: i) date of complaint; ii) description of complaint; iii) particulars of complainant; iv) details of action required/decided; v) person(s) responsible to take action; vi) person(s) responsible to monitor the action; vii) details of action taken (when, by whom, where); viii) comments of the complainant after the action taken. A separate SCR will be placed at each grid station included in the proposed project, and any other project site offices.
Complaint raised by any complainant	The complaint is recorded in the SCR.	ESM	-	ESI	The relevant columns of the SCR are filled.
Identification of remedial action	A meeting is held between ESM and ESI, and if required with PM and Site Incharge. The remedial action is identified. The PD and ESC are informed regarding the grievance and the remedial action identified.	ESI	Within 2 days of the new complaint.	ESC	The relevant columns of the SCR are filled.
Implementation of remedial action	The remedial action is implemented	Contractors or MEPCO, depending upon the nature of the remedial measure	4 weeks (max.)	ESI	The relevant columns of the SCR are filled.
Feed back to the complainant	Information is provided to the complainant regarding the remedial action taken. The comments/observations of the complainant are obtained and documented.	ESM	Within 1 week of the action taken.	ESI	The relevant columns of the SCR are filled.

...Cont'd. Exhibit 7.3.

<i>Stage/Description</i>	<i>Action</i>	<i>Action By</i>	<i>By When</i>	<i>Monitoring By</i>	<i>Notes</i>
Fortnightly site meetings	The SCR will be discussed.	ESI	Fortnightly.	PM	The discussion will be documented in the minutes of meeting.
On monthly basis	The summary of SCR will be sent to PD and ESC.	ESI	Monthly.	PM	-
Un-resolved complaint sent to Grievance Redressal Committee (GRC)	The GRC will identify the remedial action.	PD	Within one week.	Chief Executive	ESI will send the complaint to the GRC after one month of receiving the complaint, if remains un-resolved.

Exhibit 7.4: Environmental and Social Trainings

Contents	Participants	By Whom	Monitored by	Duration and Schedule
General environmental and socioeconomic awareness; ESA and RP development process; Environmental and social sensitivity of the project area; Key findings of the ESA; Mitigation measures; RP; EMP; Social and cultural values of the area (including gender).	Design team; Selected MEPCO management staff	External consultant	ESC	Duration: 1-day session. Prior to the start of the project activities. (To be repeated as needed)
General environmental and socioeconomic awareness; Environmental and social sensitivity of the project area; Consultation process and its importance; ESA process; Mitigation measures; Community issues; Awareness of transmissible diseases Social and cultural values (including gender).	All site personnel	External consultant	ESC	Duration: half a day. Prior to the start of the field activities. (To be repeated as needed)
RP; EMP	<i>Tehsildar and Patwari</i>	ESI	ESC	Duration: half a day. Prior to the start of the field activities. (To be repeated as needed)
EMP; RP; Waste disposal	Construction crew	External consultant	ESI	Duration: One day Prior to the start of the construction activities, to be repeated every 2 months.

... Contd. **Exhibit 7.4.**

Contents	Participants	By Whom	Monitored by	Duration and Schedule
Road safety; Defensive driving; Waste disposal; Cultural values and social sensitivity.	Drivers	ESM	ESI	Duration: half a day Before and during the field operations (once every 2 months).
Camp operation; Waste disposal; Natural resource conservation; Housekeeping.	Camp staff	ESM	ESI	Duration: half a day Before and during the field operations (once every 2 months).
Restoration requirements; Waste disposal	Restoration teams	ESM	ESI	Before the start of the restoration activities.

8 Monitoring and Evaluation

Resettlement monitoring and evaluation (M&E) system will be put in place in order to ensure that the RP is effectively implemented. The following aspects of the RP and resettlement process will be monitored during the proposed project:

- ▶ Number of PAPs and asset loss,
- ▶ Payment of compensation to the PAPs with category of loss;
- ▶ Land acquired by type, mode of acquisition and payment of compensation
- ▶ Timely disbursement of funds;
- ▶ Any outstanding issues and grievance monitoring.

The social monitoring framework and monitoring tools to be employed during the proposed project are discussed below.

8.1 Social Monitoring Framework

The social monitoring framework, presented in **Exhibit 8.1**, defines the desired outcomes and their associated outputs as well as verification mechanisms. The social monitoring framework focuses on the resettlement issues, however it also addresses the other social issues likely to arise during the project execution as well.

8.2 Monitoring Plan

The objective of the monitoring during the various phases of the proposed project will be as follows:

- Ensuring that the RP implementation procedure (given in **Section 7.2**) is fully complied with.
- Ensuring the effectiveness of the RP in minimizing the project's impacts related to involuntary resettlement.

To achieve these objectives, the following monitoring program will be implemented.

8.2.1 Compliance Monitoring

The compliance monitoring of the project activities is principally a tool to ensure that the RP implementation procedure is strictly adhered to during the project execution.

Various aspects of the RP compliance monitoring will be to:

- Systematically observe the activities undertaken by the *Tehsildar*, *Patwari*, contractors (and sub-contractors) or any other person associated with the project
- Verify that the activities are undertaken in compliance with the RP implementation procedure.

- Document and communicate the observations to the concerned person(s) of the GSC Department, ESC and contractors, so that any corrective measures, if required, can be taken in a timely fashion
- Maintain a record of all incidents of social significance, related actions and corrective measures
- Maintain contact with the communities, solicit their views and concerns, and discuss them during the fortnightly meetings.
- Prepare periodic reports of the RP implementation during the project.

Compliance monitoring will be the responsibility of all organizations involved in the field activities, ie, GSC Department and the contractors. It will be carried out by the following:

- ESI
- ESM.

8.2.2 Effects Monitoring

The RP has been developed based upon the potential impacts of the proposed project predicted while conducting the ESA study. This impact prediction was in turn carried out on the basis of information available at the time of conducting the assessment and the natural processes that link various environmental and social parameters. Based on this prediction, mitigation measures are introduced such that the predicted residual effects do not exceed acceptable levels. However, there is always an element of uncertainty in such predictions due to an insufficient grasp of the processes, limitations in prediction techniques, or inadequate data on the environment. This is true for the physical, biological, as well as socioeconomic environment. Consequently, it is possible that even if the mitigation measures are implemented fully, the negative impacts of the project will exceed acceptable limits.

In order to address the above concerns, effects monitoring will be undertaken during the project activities, with the overall objective of proper management of social (and environment) risks and uncertainties. Broadly, effects monitoring has the following objectives:

- To verify that the socioeconomic impacts – particularly related to the involuntary resettlement - of the proposed project are within acceptable limits, thus establishing credibility (public assurance)
- To immediately warn the project proponents (and the regulatory agencies, if required) of unanticipated adverse impact or sudden changes in impact trends so that corrective actions can be undertaken, which may include modifications in the proposed activities, or the inclusion of modified or additional mitigation measures
- To provide information to plan and control the timing, location, and level of certain project activities so that the effects are minimized.
- To facilitate research and development by documenting the effects of the proposed project that can be used to validate impact-prediction techniques and provide a basis for more accurate predictions of future projects.

The RP effects monitoring will comprise the following:

- Socioeconomic aspects, particularly the resettlement and compensation,
- Grievance monitoring.

The social indicators, discussed later in the section, will be used during the effect monitoring of the construction activities.

In addition, contact will be maintained with the communities, their views and concerns solicited. The outcome of these consultations will be discussed during the fortnightly meetings at the site.

8.2.3 External Monitoring

In addition to the compliance and effects monitoring discussed above, MEPCO will engage an independent consultant to carry out external monitoring of RP (and EMP²¹) implementation on periodical basis. The objective of this external monitoring is to validate the internal monitoring results, and specifically ensure that:

- the RP (and EMP) is being adequately implemented,
- mitigation measures are being implemented,
- the compliance and effects monitoring are being conducted,
- environmental and social trainings are being conducted as planned, and
- complete documentation is being maintained.

The external monitoring consultant will periodically visit the sites (grid stations as well as the transmission line routes), examine the documentation maintained at the site, interview key site staff, make spot checks, take photographs where necessary, interview the PAPs, and meet with the communities. After each external monitoring visit, the consultant will prepare a monitoring report and submit to MEPCO. The report will include the observations made during the visits, highlight non-compliances observed, if any, salient information obtained from PAPs/communities, and make recommendations.

The external monitoring consultant will visit the project sites as follows:

- First visit: about 3 months after the site mobilization
- Second visit: about middle of the project
- Last visit: at the end of the project, just before demobilization.

8.3 Monitoring Indicators

An indicative list of monitors is provided below, which will be used during the affects monitoring and external monitoring in order to evaluate various aspects of the RP implementation.

- Total number of PAPs, broken down in gender groups and intensity of impacts
- Number/area/type of affected assets

²¹ The EMP is provided in the ESA report in its **Chapter 10**.

- Amount of compensation estimated for land, crops, trees and other assets
- Amount of compensation disbursed, broken down in by PAPs, assets
- Number of persons compensated by types of losses
- Number of persons not compensated as planned (with reason for the gap)
- Total numbers of grievances recorded
- Total number of grievances addressed
- Amount of land required
- Amount of land purchased/state land acquired/acquired under LAA
- Total number of transmission line towers in cultivated area
- Total number of transmission line towers in cultivated area, with access available for the cultivators to the land under the tower.
- Total number of transmission line towers in cultivated area, with no access available for the cultivators to the land under the tower.
- Total number of non-compliances recorded by ESI (derived from the Compliance Monitoring Reports)
- Actions taken to address non-compliances identified by ESI
- Total number of non-compliances recorded by the External Monitoring Consultant
- Actions decided to address non-compliances identified by the External Monitoring Consultant
- Actions taken to address non-compliances identified by the External Monitoring Consultant.
- Number of training sessions planned and undertaken by target groups and types of trainings.

The list of indicators to be used during the project will be finalized by ESI with the help of ESC.

8.4 Monitoring Reports

Three types of monitoring reports will be prepared during the project. These are described below.

8.4.1 Compliance Monitoring Reports

These reports will be prepared as an outcome of the compliance monitoring discussed in **Section 8.2.1** above. These reports will be developed on the basis of the checklists filled during the monitoring. The report will focus on the non-compliances observed during the monitoring, with reasons of the non-compliances, any subsequent action taken and any other relevant detail. The reports will be produced by the ESI on a weekly basis.

8.4.2 Effects Monitoring Reports

These reports will be prepared as an outcome of the effects monitoring discussed in **Section 8.2.2** above. These reports will be compiled by the ESI on a monthly basis. These reports will document the project performance on the basis of the monitoring indicators discussed in **Section 8.3** above.

8.4.3 External Monitoring Reports

The External Monitoring Consultant will prepare a report after each monitoring visits. The report will include the monitoring methodology, the filled checklists, field observations, photographs, account of the consultations with the PAPs and communities, and recommendations. The reports will be submitted within 2 weeks of the external monitoring visits.

The Consultant will also prepare a final report after the completion of the entire external monitoring program. The report will provide an overview of each individual monitoring visit, any commonalities or trends found during different visits, an analysis of the external monitoring, and recommendations for future projects.

Exhibit 8.1: Social Monitoring Framework

Outcome	Outputs	Verification Source
Land acquisition for the grid stations is carried out on fair and mutually accepted terms.	Value of the land reflective of the market price.	Sales-purchase agreements.
Farmers are compensated in a fair and mutually accepted manner for the crop damages (during both construction and O&M phases of the project)	The PAPs are correctly identified.	List of PAPs in RP; List of PAPs updated by <i>Tehsildar</i> and <i>Patwari</i> during project execution (see Section 7.2).
	The magnitude of crop damage (affected area under cultivation) is correctly recorded.	List of PAPs in RP; List of PAPs updated by <i>Tehsildar</i> and <i>Patwari</i> during project execution.
	Compensation for crop damaged is paid based upon the market rates.	Receipts of payments to PAPs;
A swift and transparent grievance redressal mechanism in place.	The Social Complaint Register for checking.	The Social Complaint Register; Affectees consultations during compliance monitoring (monitoring reports) Affectees consultations during external monitoring (visit reports).
The RP and EMP are effectively implemented	Staff trainings according to the Monitoring Plan (discussed later in the document).	Training reports including list of trainees and types of training.
	The skills and knowledge acquired during the trainings are effectively employed.	Compliance monitoring record; External monitoring visit reports.
	The mitigation measures implemented by the construction staff are appropriately documented.	Compliance monitoring record; External monitoring visit reports.

9 Resettlement Budget

The project proponent will make the necessary budget provisions to ensure that the mitigation commitments including compensation and the monitoring programs can be fully implemented. The entire budget for managing the environmental and socioeconomic aspects, including the resettlement, is provided in **Exhibit 9.1**.

Exhibit 9.1: Environmental and Social Management Budget

	Description	Cost (Pak Rs.)	Basis	Notes
1	Personnel			
	ESI (3)	2,160,000	18 months × 40,000 PM ^a	Responsible for Compliance Monitoring
	ESM (6)	0	To be included in the Contractor's cost	
2	Effects Monitoring	1,145,000	-	See details in EMP (Section 10 of EMP)
3	External Monitoring	900,000	3 × 1-day visits; 5 locations (GS): (15 days). 3 × 2 day visits; 5 TL locations (30 days). 45 days × 10,000 per day × 2 experts	
4	Environmental and social Trainings	440,000	11 training sessions × one-day duration; Rs 40,000 per training. ^b	See Exhibit 7.4 (trainings to be conducted by external consultants only)..
5	Tree Plantation	100,000	About 500 trees	Explained in ESA report (Chapter 10)
6	Development of PCBs Elimination Plan	520,000	26 days × 20,000 per day.	Explained in ESA report (Chapter 10)
7	Crop Compensation	9,626,145	Estimates carried out by <i>Patwari</i> .	See Section 5.3 above.
8	Miscellaneous Expenses	500,000	Lump sum	-
9	Contingencies	462,000	3 % of the above	-
	Total	15,853,145		

^a The duration of the proposed project has been assumed as 18 months.^b Frequency of the trainings may be altered per the requirements.

Appendix A: Details of Crop Compensation

This appendix provides the details of the transmission line routes, the cultivated area falling under these routes, the crop compensation amounts and the names of land owners/cultivators.

Citation in the Main Document: **Section 5.4.**

Crop Compensation: Khairpur Tamewali – Hasilpur Transmission Line ²²

No	From (m)	To (m)	Description	Owners/Cultivators	Area (Acres)	Amount (Rs.)
1	0	680	Un-cultivated Land	-	0	0
2	680	1080	Cultivated Land	Hafiz Muhamamd Buksh	2.97	26,100
3	1080	1370	Cultivated Land	Allah Buksh	2.15	18,922
4	1370	1600	Cultivated Land	Maqsood Ahmad Warghi	1.71	15,007
5	1600	2420	Cultivated Land	Muhammad Arif Sial	6.08	53,505
6	2420	2990	Cultivated Land	Allah Ditta Kori	4.23	37,192
7	2990	3930	Cultivated Land	Nawaz	6.97	61,335
8	3930	4410	Cultivated Land	Abdul Rashid Bajwa	3.56	31,320
9	4410	4955	Cultivated Land	Rana Wali Muhammad	4.04	35,561
10	4955	5425	Cultivated Land	Ch. Abdul Ghafoor	3.48	30,667
11	5425	5985	Cultivated Land	Rana Ferzand Ali	4.15	36,540
12	5985	6475	Cultivated Land	Bilal Ahmad Arian	3.63	31,972
13	6475	6815	Cultivated Land	Muhammad Nawaz Sheikh	2.52	22,185
14	6815	7465	Cultivated Land	Rana Abdul Rehman	4.82	42,412
15	7465	8025	Cultivated Land	Amjad Shah	4.15	36,540
16	8025	8865	Cultivated Land	Meher Muhammad Haji	6.23	54,810
17	8865	9085	Cultivated Land	Parwari Allah Rakha	1.63	14,355
18	9085	9945	Cultivated Land	Ch. Munir Ahmad Gill	6.38	56,115
19	9945	10685	Cultivated Land	Nazir Ahmad	5.49	48,285
20	10685	10995	Cultivated Land	Ch. Muhammad Tariq	2.30	20,227
21	10995	11555	Cultivated Land	M.Rehmat & Ilyas Wahla	4.15	36,540
22	11555	12395	Cultivated Land	Muhammad Qasim	6.23	54,810
23	12395	13065	Cultivated Land	Nasir Baloach	4.97	43,717
24	13065	14425	Cultivated Land	Mian Sajjad Pirzada	10.08	88,739
25	14425	15045	Cultivated Land	Haji Bagga Labana	4.60	40,455
26	15045	16645	Cultivated Land	Mian Sajjad Pirzada	11.86	104,399
27	16645	17185	Cultivated Land	Muhammad Saleem	4.00	35,235
28	17185	17660	Cultivated Land	Muhammad Saeed	3.52	30,994
29	17660	18760	Cultivated Land	Shahid Karim Ullah	8.16	71,775
30	18760	20400	Cultivated Land	Muhammad Fiyyaz Daha	12.16	107,009
31	20400	21160	Cultivated Land	Allah Diwaya	5.64	49,590
32	21160	21760	Cultivated Land	Sultan Mehmood	4.45	39,150

²² The compensation amount has been estimated based upon 2 wheat-crop seasons; Rs 4,400 per acre per season. This rate is the government approved rate for wheat crop, and is provided by MEPCO.

No	From (m)	To (m)	Description	Owners/Cultivators	Area (Acres)	Amount (Rs.)
33	21760	22660	Cultivated Land	Noor Muhammad Daha	6.67	58,725
34	22660	27160	Un-cultivated Land	-	0	0
35	27160	27810	Cultivated Land	Rehmat Ullah Azad	4.82	42,412
36	27810	28310	Cultivated Land	Asmat Ali	3.71	32,625
37	28310	28810	Cultivated Land	Ch. Barkat Ali	3.71	32,625
38	28810	29050	Cultivated Land	Ch. Abdul Sattar	1.78	15,660
39	29050	29315	Cultivated Land	Manzoor Ahmad Arian	1.96	17,291
40	29315	29485	Cultivated Land	Shamim Akhtar	1.26	11,092
41	29485	29775	Cultivated Land	Wakeel Muhamamd Azhar	2.15	18,922
42	29775	29900	Cultivated Land	Doctor Shaukat Ali	0.93	8,156
43	29900	30040	Cultivated Land	Ch. Javed Rana	1.04	9,135
44	30040	30200	Cultivated Land	Muhamamd Aziz	1.19	10,440
45	30200	30390	Cultivated Land	Meher Khadim Hussain	1.41	12,397
46	30390	30550	Cultivated Land	Rana Muhammad Akram	1.19	10,440
47	30550	30750	Cultivated Land	Ch. Muhammad Farooq	1.48	13,050
48	30750	30930	Cultivated Land	Zahid Sttar Rana	1.33	11,745
49	30930	31150	Cultivated Land	Abid Hussain Rana	1.63	14,355
50	31150	31295	Cultivated Land	Muhammad Akram Arian	1.08	9,461
51	31295	31495	Cultivated Land	Ch. Zahid Rana	1.48	13,050
52	31495	32080	Cultivated Land	Ch. Muhamamd Akram	4.34	38,171
53	32080	32400	Cultivated Land	Haji Muhammad Afzal	2.37	20,880
54	32400	32780	Cultivated Land	Muhammad Zafar Rana	2.82	24,795
55	32780	33165	Cultivated Land	Ch. Abdul Sattar Arian	2.85	25,121
56	33165	33475	Cultivated Land	Housing Abadi Area	2.30	20,227
57	33475	33755	Cultivated Land	Park Area	2.08	18,270
58	33755	34055	Cultivated Land	Ch. Muhammad Khalid (Modern Ghee Mill)	2.22	19,575
59	34055	34195	Cultivated Land	Muhammad Iqbal Arian	1.04	9,135
60	34195	34480	Cultivated Land	M Rafique Nasir Arian	2.11	18,596
61	34480	34680	Un-cultivated Land	Railway Line Road Area	0	0
62	-	-	Estimated number of trees to be removed: 100. ²³	-	-	200,000
			Total		217.26	2,111,814

Crop Compensation: Lal Sohanra - Khairpur Tamewali Transmission Line²⁴

No	From (m)	To (m)	Land Use	Owners	Area (Acres)	Amount (Rs.)
1	0	200	Cultivated Land	Abdul Latif	1.48	13,050
2	200	450	Cultivated Land	Rafique Ali	1.85	16,312
3	450	580	Cultivated Land	Muhammad Safdar	0.96	8,482
4	580	630	Cultivated Land	Muhammad Safdar	0.37	3,262

²³ The exact number of trees and their owners can be determined only once the transmission line tower locations are finalized during the construction phase.

²⁴ The compensation amount has been estimated based upon 2 wheat-crop seasons; Rs 4,400 per acre per season.

No	From (m)	To (m)	Land Use	Owners	Area (Acres)	Amount (Rs.)
5	630	1250	Cultivated Land	Ashraf & Sadiq Brother	4.60	40,455
6	1250	1370	Cultivated Land	Allah Diwaya Sonea	0.89	7,830
7	1370	1550	Cultivated Land	Safdar Chishti	1.33	11,745
8	1550	1820	Cultivated Land	Wali Muhammad Chishti	2.00	17,617
9	1820	2620	Cultivated Land	Taj, Mukhtar Brothers	5.93	52,200
10	2620	3235	Cultivated Land	Sarwar Chishti	4.56	40,129
11	3235	3855	Cultivated Land	Ch. Amjad Ghoria	4.60	40,455
12	3855	4335	Cultivated Land	Khadim Hussain	3.56	31,320
13	4335	4835	Cultivated Land	Sohail Akhtar Kahlu	3.71	32,625
14	4835	5407	Cultivated Land	M. Nawaz Bajwa	4.24	37,323
15	5407	5707	Cultivated Land	Abdul Haque	2.22	19,575
16	5707	6360	Cultivated Land	Manzoor Baig	4.84	42,608
17	6360	7310	Un-cultivated Land	-	0	0
18	7310	8680	Cultivated Land	Manzoor Ahmad & Nazir Ahmad	10.16	89,392
19	8680	9480	Cultivated Land	Malik Ejaz Godden	5.93	52,200
20	9480	9920	Cultivated Land	Mian Muhamamd Waris	3.26	28,710
21	9920	10880	Cultivated Land	Fateh Muhammad	7.12	62,640
22	10880	12000	Cultivated Land	Mian Muhammad Mushtaq	8.30	73,080
23	12000	13580	Cultivated Land	Rashid Ahmad & Bashir Ahmad	11.72	103,094
24	13580	14480	Cultivated Land	Khan Muhammad Baloach	6.67	58,725
25	14480	15230	Cultivated Land	Faqir Hussain	5.56	48,937
26	15230	15880	Cultivated Land	Muhammad Sultan	4.82	42,412
27	15880	16380	Cultivated Land	Muhamamd Afzal	3.71	32,625
28	16380	16780	Cultivated Land	Khurshid Ahmad Baloach	2.97	26,100
29	16780	17140	Cultivated Land	Ramzan Baloach	2.67	23,490
30	17140	17660	Cultivated Land	Faiz Muhammad Baloach	3.86	33,930
31	17660	18100	Cultivated Land	Ahmad Nawaz Langha	3.26	28,710
32	18100	18545	Cultivated Land	Ghulam Rasool Baloach	3.30	29,036
33	18545	19325	Cultivated Land	Allah Yar Wahghi	5.78	50,895
34	19325	19385	Cultivated Land	Bahawal Canal Area	0.44	3,915
35	19385	22555	Un-cultivated Land	-	0	0
36	22555	23335	Cultivated Land	Nazar Muhamamd Cheema	5.78	50,895
37	23335	25735	Cultivated Land	Sardar Muhammad	17.80	156,599
38	25735	26895	Cultivated Land	Meher Noor Muhammad Sial	8.60	75,690
39	26895	27525	Cultivated Land	Muhammad Hanif	4.67	41,107
40	27525	28405	Cultivated Land	Lal Khan Ghedo	6.52	57,420
41	28405	29465	Cultivated Land	Ch. Wali Muhammad	7.86	69,165
42	29465	30785	Cultivated Land	Ch. Muhammad Javed	9.79	86,130
43	-	-	Estimated number of trees to be removed: 100	-	-	200,000
			Total		197.69	1,939,885

Crop Compensation Lal Sohanra - Kehror Pacca Transmission Line ²⁵

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
1	0	70	School Plot	-	0	0
2	70	730	Cultivated Land	Afzal	4.89	43,065
3	730	870	Cultivated Land	Atta Muhammad	1.04	9,135
4	870	1530	Cultivated Land	Yar Muhammad	4.89	43,065
5	1530	1948	Cultivated Land	Atta Muhammad	3.10	27,274
6	1948	2188	Cultivated Land	Akbar Khan	1.78	15,660
7	2188	2644	Cultivated Land	Khan Umar	3.38	29,754
8	2644	2684	Cultivated Land	Haji Sardar Shah	0.30	2,610
9	2684	2847	Cultivated Land	Haji Bahar Shah	1.21	10,636
10	2847	2977	Cultivated Land	Bashir Ahmad	0.96	8,482
11	2977	3526	Cultivated Land	Allah Ditta	4.07	35,822
12	3526	3586	Cultivated Land	Sadiq	0.44	3,915
13	3586	3796	Cultivated Land	Ghulam Ali	1.56	13,702
14	3796	3985	Cultivated Land	Muhammad Nawaz Shah	1.40	12,332
15	3985	4125	Cultivated Land	Allah Wasaya	1.04	9,135
16	4125	4195	Cultivated Land	Muhammad Iqbal	0.52	4,567
17	4195	4255	Cultivated Land	Hafiz Allah Yar	0.44	3,915
18	4255	4325	Cultivated Land	Muhammad Iqbal	0.52	4,567
19	4325	4395	Cultivated Land	Allah Wasaya	0.52	4,567
20	4395	4465	Cultivated Land	Ghulam Mustafa	0.52	4,567
21	4465	4613	Cultivated Land	Allah Wasaya	1.10	9,657
22	4613	4733	Cultivated Land	Muhammad Nawaz Shah	0.89	7,830
23	4733	4803	Cultivated Land	Zafar Shah	0.52	4,567
24	4803	4953	Cultivated Land	Fazal Din	1.11	9,787
25	4953	5023	Cultivated Land	Rahim Shah	0.52	4,567
26	5023	5058	Cultivated Land	Zaman Shah	0.26	2,284
27	5058	5128	Cultivated Land	Zaman Shah	0.52	4,567
28	5128	5148	Cultivated Land	Pir Lal Shah	0.15	1,305
29	5148	5248	Cultivated Land	Muhammad Yar Sangla	0.74	6,525
30	5248	5388	Cultivated Land	Altaf Shah	1.04	9,135
31	5388	5895	Cultivated Land	Altaf Shah	3.76	33,082
32	5895	6025	Cultivated Land	Faiz Buksh	0.96	8,482
33	6025	6265	Cultivated Land	Bashir Ahmad	1.78	15,660
34	6265	6465	Cultivated Land	Haji Muhammad	1.48	13,050
35	6465	6765	Un-cultivated Land	River Satluj	0	0
36	6765	6835	Cultivated Land	Khan Muhammad	0.52	4,567
37	6835	6935	Cultivated Land	Mukhtar Ahmad	0.74	6,525
38	6935	7010	Cultivated Land	Ghulam Qadir	0.56	4,894
39	7010	7070	Cultivated Land	Allah Buksh	0.44	3,915
40	7070	7150	Cultivated Land	Mukhtar Ahmad	0.59	5,220
41	7150	7210	Cultivated Land	Mukhtar Ahmad	0.44	3,915
42	7210	7310	Cultivated Land	Ata Muhammad	0.74	6,525

²⁵ The compensation amount has been estimated based upon 2 wheat-crop seasons; Rs 4,400 per acre per season.

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
43	7310	7460	Cultivated Land	Allah Yar	1.11	9,787
44	7460	7530	Cultivated Land	Allah Yar Khan	0.52	4,567
45	7530	7605	Cultivated Land	Ahmad Yar	0.56	4,894
46	7605	7680	Cultivated Land	Shah Muhammad Khan	0.56	4,894
47	7680	7770	Cultivated Land	Manzoor Ahmad	0.67	5,872
48	7770	7840	Cultivated Land	Shah Muhammad Khan	0.52	4,567
49	7840	7910	Cultivated Land	Allah Wasaya	0.52	4,567
50	7910	7980	Cultivated Land	Ghulam Haider	0.52	4,567
51	7980	8050	Cultivated Land	Atta Muhammad	0.52	4,567
52	8050	8250	Cultivated Land	Zahoor Khan	1.48	13,050
53	8250	8320	Cultivated Land	Allah Bachaya	0.52	4,567
54	8320	8390	Cultivated Land	Allah Divaya	0.52	4,567
55	8390	8540	Cultivated Land	Mukhtar Khan	1.11	9,787
56	8540	8917	Cultivated Land	Saif Ullah	2.80	24,599
57	8917	8987	Cultivated Land	Qasim Khan	0.52	4,567
58	8987	9057	Cultivated Land	Allah Yar	0.52	4,567
59	9057	9127	Cultivated Land	Ghulam Haider	0.52	4,567
60	9127	9197	Cultivated Land	Iqbal Khan	0.52	4,567
61	9197	9247	Cultivated Land	Mukhtar Ahmad	0.37	3,262
62	9247	9317	Cultivated Land	Nawab Khan	0.52	4,567
63	9317	9352	Cultivated Land	Atta Muhammad	0.26	2,284
64	9352	9387	Cultivated Land	Mukhtar Ahmad	0.26	2,284
65	9387	9457	Cultivated Land	Muhammad Qasim	0.52	4,567
66	9457	9497	Cultivated Land	Fazal -ur-Rehman	0.30	2,610
67	9497	9647	Cultivated Land	Sadiq Khan	1.11	9,787
68	9647	9677	Cultivated Land	Atta Muhammad	0.22	1,957
69	9677	9707	Cultivated Land	Tariq	0.22	1,957
70	9707	9907	Cultivated Land	Fateh Muhammad	1.48	13,050
71	9907	10267	Cultivated Land	Rabnawaz	2.67	23,490
72	10267	10302	Cultivated Land	Munshi S/O Muhammad Ramzan	0.26	2,284
73	10302	10372	Cultivated Land	Rab Nawaz	0.52	4,567
74	10372	10562	Cultivated Land	Din Muhammad	1.41	12,397
75	10562	10662	Cultivated Land	Subhan	0.74	6,525
76	10662	10732	Cultivated Land	Rafique	0.52	4,567
77	10732	11152	Cultivated Land	Mian Yousaf	3.11	27,405
78	11152	11352	Cultivated Land	Yousaf	1.48	13,050
79	11352	11442	Cultivated Land	Abdul Razaq	0.67	5,872
80	11442	11512	Cultivated Land	Abdul Majeed	0.52	4,567
81	11512	11602	Cultivated Land	Allah Wasaya	0.67	5,872
82	11602	11722	Cultivated Land	Allah Wasaya	0.89	7,830
83	11722	11792	Cultivated Land	Mushtaq	0.52	4,567
84	11792	11932	Cultivated Land	Bashir Ahmad	1.04	9,135
85	11932	12002	Cultivated Land	Mushtaq	0.52	4,567
86	12002	12072	Cultivated Land	Allah Divaya	0.52	4,567
87	12072	12212	Cultivated Land	Muhammad Buksh	1.04	9,135

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
88	12212	12282	Cultivated Land	Qabaz S/O Allah Buksh	0.52	4,567
89	12282	12352	Cultivated Land	Haji Mithoo	0.52	4,567
90	12352	12592	Cultivated Land	Haji Saeed	1.78	15,660
91	12592	12732	Cultivated Land	Hafiz Nazar	1.04	9,135
92	12732	12802	Cultivated Land	Zahoor Ahmad	0.52	4,567
93	12802	12872	Cultivated Land	Nazir Ahmad	0.52	4,567
94	12872	13072	Cultivated Land	Khuda Buksh	1.48	13,050
95	13072	13142	Cultivated Land	Haji Bashir Ahmad	0.52	4,567
96	13142	13202	Cultivated Land	Hassan Buksh	0.44	3,915
97	13202	13342	Cultivated Land	Ghulam Haider	1.04	9,135
98	13342	13482	Cultivated Land	Ijaz S/O Allah Wasaya	1.04	9,135
99	13482	13622	Cultivated Land	Noor Muhammad	1.04	9,135
100	13622	13692	Cultivated Land	Sarwar Shah	0.52	4,567
101	13692	13762	Cultivated Land	Noor Muhammad Dahan	0.52	4,567
102	13762	13832	Cultivated Land	Azam	0.52	4,567
103	13832	14032	Cultivated Land	Ghulam Rasool	1.48	13,050
104	14032	14102	Cultivated Land	Ghulam Rasool	0.52	4,567
105	14102	14172	Cultivated Land	Muhammad Ibrahim	0.52	4,567
106	14172	14412	Cultivated Land	Haji Allah Wasaya	1.78	15,660
107	14412	14622	Cultivated Land	Haji Ahmad Buksh	1.56	13,702
108	14622	14657	Cultivated Land	Allah Yar	0.26	2,284
109	14657	14797	Cultivated Land	Allah Buksh	1.04	9,135
110	14797	15097	Cultivated Land	Un-Known	2.22	19,575
111	15097	15347	Cultivated Land	Nawab Chaman Baig	1.85	16,312
112	15347	15417	Cultivated Land	Jam Baqa Muhammad	0.52	4,567
113	15417	15557	Cultivated Land	Chaman Khan	1.04	9,135
114	15557	15627	Cultivated Land	Malik Sharif	0.52	4,567
115	15627	15697	Cultivated Land	Haji Manzoor	0.52	4,567
116	15697	15767	Cultivated Land	Rasheed	0.52	4,567
117	15767	15802	Cultivated Land	Haji Bashir	0.26	2,284
118	15802	15837	Cultivated Land	Rasheed	0.26	2,284
119	15837	15907	Cultivated Land	Irshad Baig	0.52	4,567
120	15907	16047	Cultivated Land	Irshad Baig	1.04	9,135
121	16047	16117	Cultivated Land	Haji Ahmad Buksh	0.52	4,567
122	16117	16187	Cultivated Land	Pir Buksh	0.52	4,567
123	16187	16257	Cultivated Land	Pir Buksh	0.52	4,567
124	16257	16327	Cultivated Land	Faiz S/O Allah Buksh	0.52	4,567
125	16327	16397	Cultivated Land	Ahmad Buksh	0.52	4,567
126	16397	16537	Cultivated Land	Ghulam Yaseen	1.04	9,135
127	16537	16737	Cultivated Land	Bashir Ahmad	1.48	13,050
128	16737	16807	Cultivated Land	Haji Muhammad Buksh	0.52	4,567
129	16807	16877	Cultivated Land	Haji Wahid	0.52	4,567
130	16877	16947	Cultivated Land	Hafiz Ahmad Buksh	0.52	4,567
131	16947	17017	Cultivated Land	Bashir	0.52	4,567
132	17017	17087	Cultivated Land	Sardar Muhammad	0.52	4,567
133	17087	17157	Cultivated Land	Nasir	0.52	4,567

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
134	17157	17227	Cultivated Land	Abdul Ghaffar	0.52	4,567
135	17227	17297	Cultivated Land	Abdul Ghafoor	0.52	4,567
136	17297	17367	Cultivated Land	Faiz Buksh	0.52	4,567
137	17367	17437	Cultivated Land	Abdul Ghafoor	0.52	4,567
138	17437	17507	Cultivated Land	Muhammad Nazir	0.52	4,567
139	17507	17707	Cultivated Land	Mian Nasir	1.48	13,050
140	17707	18067	Cultivated Land	Manzoor Shah	2.67	23,490
141	18067	18207	Cultivated Land	Qasim Khan	1.04	9,135
142	18207	18407	Cultivated Land	Akhtar	1.48	13,050
143	18407	18477	Cultivated Land	Zafar	0.52	4,567
144	18477	18617	Cultivated Land	Zahoor Khan	1.04	9,135
145	18617	18687	Cultivated Land	Ghulam Mustafa	0.52	4,567
146	18687	18757	Cultivated Land	Ch. Allah Wasaya	0.52	4,567
147	18757	18827	Cultivated Land	Umar Din	0.52	4,567
148	18827	18897	Cultivated Land	Muhammad Ramzan	0.52	4,567
149	18897	18967	Cultivated Land	Alam Khan	0.52	4,567
150	18967	19002	Cultivated Land	Bashir Ahmad	0.26	2,284
151	19002	19072	Cultivated Land	Nazir Ahmad	0.52	4,567
152	19072	19142	Cultivated Land	Yousaf	0.52	4,567
153	19142	19212	Cultivated Land	Muhammad Sadiq	0.52	4,567
154	19212	19282	Cultivated Land	Kaloo S/O Wahid Buksh	0.52	4,567
155	19282	19352	Cultivated Land	Bilal Bhatti	0.52	4,567
156	19352	19525	Cultivated Land	Bashir Ahmad	1.28	11,288
157	19525	19665	Cultivated Land	Muhammad Tahir	1.04	9,135
158	19665	19805	Cultivated Land	Moulvi Iqbal	1.04	9,135
159	19805	19985	Cultivated Land	Ch. Javed	1.33	11,745
160	19985	20235	Cultivated Land	Ch. Javed	1.85	16,312
161	-	-	Estimated number of trees to be removed: 60	-	-	120,000
			Total		147.33	1,416,150

Crop Compensation – Feed for Head Sidhnai Grid Station²⁶

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
1	0	140	Cultivated Land	Bashir Ahmad	1.04	9,135
2	140	420	Cultivated Land	Shoque	2.08	18,270
3	420	490	Cultivated Land	Govt. Land	0.52	4,567
4	490	630	Cultivated Land	Dara S/O Sardar	1.04	9,135
5	630	700	Cultivated Land	Munir Jutt	0.52	4,567
6	700	960	Cultivated Land	Munir Jutt	1.93	16,965
7	960	995	Cultivated Land	Dr. Shamas	0.26	2,284
8	995	1065	Cultivated Land	Dr. Shamas	0.52	4,567

²⁶ The compensation amount has been estimated based upon 2 wheat-crop seasons; Rs 4,400 per acre per season.

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
9	1065	1135	Cultivated Land	Ali Muhammad	0.52	4,567
10	1135	1315	Cultivated Land	Khan Baig	1.33	11,745
11	1315	1435	Cultivated Land	Bashir Ahmad	0.89	7,830
12	1435	1505	Cultivated Land	Rafique	0.52	4,567
13	1505	1575	Cultivated Land	Bashir	0.52	4,567
14	1575	1610	Cultivated Land	Arshad	0.26	2,284
15	1610	1680	Cultivated Land	Pehalwan	0.52	4,567
16	1680	1750	Cultivated Land	Muhammad Nawaz	0.52	4,567
17	1750	1890	Cultivated Land	Jamal Sargana	1.04	9,135
18	1890	2010	Cultivated Land	Muhammad Nawaz	0.89	7,830
19	2010	2080	Cultivated Land	Pehalwan	0.52	4,567
20	2080	2220	Cultivated Land	Allah Ditta	1.04	9,135
21	2220	2340	Cultivated Land	Allah Yar	0.89	7,830
22	2340	2460	Cultivated Land	Mehar Shahmand	0.89	7,830
23	2460	2530	Cultivated Land	Govt. Land	0.52	4,567
24	2530	2565	Cultivated Land	Abdul Sattar Jutt	0.26	2,284
25	2565	2685	Cultivated Land	Abdul Sattar Jutt	0.89	7,830
26	2685	2885	Cultivated Land	Nawaz Bhatti	1.48	13,050
27	2885	3065	Cultivated Land	Noor Muhammad Sial	1.33	11,745
28	3065	3185	Cultivated Land	Abid Ali	0.89	7,830
29	3185	3335	Cultivated Land	Nazir Ahmad	1.11	9,787
30	3335	3405	Cultivated Land	Abid Ali	0.52	4,567
31	3405	3885	Cultivated Land	Muhamamd Ali Sahoo	3.56	31,320
32	3885	4365	Cultivated Land	Haji Nawaz	3.56	31,320
33	4365	4435	Cultivated Land	Manzoor Ahmad	0.52	4,567
34	4435	4575	Cultivated Land	Daim S/O Makhan	1.04	9,135
35	4575	4695	Cultivated Land	Habib	0.89	7,830
36	4695	4785	Cultivated Land	Abid	0.67	5,872
37	4785	4935	Cultivated Land	Zahoor	1.11	9,787
38	4935	5085	Cultivated Land	Nusrat	1.11	9,787
39	5085	5155	Cultivated Land	Zahoor	0.52	4,567
40	5155	5305	Cultivated Land	Sardar Shaukat	1.11	9,787
41	5305	5505	Cultivated Land	Akhtar	1.48	13,050
42	5505	5955	Cultivated Land	Sardar Shafqat	3.34	29,362
43	5955	6090	Cultivated Land	Mazhar	1.00	8,809
44	6090	6410	Cultivated Land	Sardar Ishfaq	2.37	20,880
45	6410	6710	Cultivated Land	Haji Zafar	2.22	19,575
46	6710	6860	Cultivated Land	Sardar Shafqat	1.11	9,787
47	6860	7140	Cultivated Land	Mian Noor Muhammad	2.08	18,270
48	7140	7440	Cultivated Land	Sardar Ishfaq Ahmad	2.22	19,575
49	-	-	Estimated number of trees to be removed: 25	-	-	50,000
			Total		55.17	535,451

Crop Compensation – Feed for Makhdumpur Grid Station ²⁷

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
1	0	60	Cultivated Land	Noor Muhammad	0.44	3,915
2	60	223	Cultivated Land	Ghulam Farid	1.21	10,636
3	223	266	Cultivated Land	Muhamamd Nawaz	0.32	2,806
4	266	326	Cultivated Land	Noor Muhammad	0.44	3,915
5	326	440	Cultivated Land	Muhammad Ramzan	0.85	7,438
6	440	479	Cultivated Land	Khizar Hayat	0.29	2,545
7	479	544	Cultivated Land	Malik Talib	0.48	4,241
8	544	639	Cultivated Land	Malik Iqbal	0.70	6,199
9	639	684	Cultivated Land	Malik Iqbal	0.33	2,936
10	684	734	Cultivated Land	Malik Mujahid	0.37	3,262
11	734	1014	Cultivated Land	Muhammad Tayyab	2.08	18,270
12	1014	1194	Cultivated Land	Malik Mazahar	1.33	11,745
13	1194	1314	Cultivated Land	Rana Yasrab	0.89	7,830
14	1314	1494	Cultivated Land	Malik Asif	1.33	11,745
15	1494	1547	Cultivated Land	Jhang Road Kabirwala	0.39	3,458
16	1547	1727	Cultivated Land	Malik Ahmad Nawaz	1.33	11,745
17	1727	2044	Cultivated Land	Malik Muhammad Sharif	2.35	20,684
18	2044	2224	Cultivated Land	Muhammad Zubair	1.33	11,745
19	2224	2284	Cultivated Land	Jahangir Khan	0.44	3,915
20	2284	2464	Cultivated Land	Mehar Safdar	1.33	11,745
21	2464	2524	Cultivated Land	Mehar Zafar	0.44	3,915
22	2524	2658	Cultivated Land	Muhammad Iqbal	0.99	8,743
23	2658	2778	Cultivated Land	Mehar Zafar	0.89	7,830
24	2778	2808	Cultivated Land	Malik Kausar	0.22	1,957
25	2808	2898	Cultivated Land	Khizar	0.67	5,872
26	2898	3598	Cultivated Land	Safdar Shah	5.19	45,675
27	3598	3658	Cultivated Land	Haji Shahid	0.44	3,915
28	3658	3688	Cultivated Land	Alsam	0.22	1,957
29	3688	3718	Cultivated Land	Abdul Aziz	0.22	1,957
30	3718	3871	Cultivated Land	Rao Akmal	1.13	9,983
31	3871	3961	Cultivated Land	Rao Khursheed	0.67	5,872
32	3961	4171	Cultivated Land	Muhammad Aslam	1.56	13,702
33	4171	4261	Cultivated Land	Zafar Hassan	0.67	5,872
34	4261	4381	Cultivated Land	Ijaz S/O Atta Muhammad	0.89	7,830
35	4381	4441	Cultivated Land	Nawaz Bhatti	0.44	3,915
36	4441	4501	Cultivated Land	Ziyarat	0.44	3,915
37	4501	4621	Cultivated Land	Sajjad	0.89	7,830
38	4621	4681	Cultivated Land	Shamshad	0.44	3,915
39	4681	4741	Cultivated Land	Talib Hussain	0.44	3,915
40	4741	4801	Cultivated Land	Allah Ditta	0.44	3,915
41	4801	4861	Cultivated Land	Talib Hussain	0.44	3,915

²⁷ The compensation amount has been estimated based upon 2 wheat-crop seasons; Rs 4,400 per acre per season.

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
42	4861	4921	Cultivated Land	Allah Ditta	0.44	3,915
43	4921	4951	Cultivated Land	Nazim	0.22	1,957
44	4951	5041	Cultivated Land	Sadar Din	0.67	5,872
45	5041	5131	Cultivated Land	Mangat	0.67	5,872
46	5131	5161	Cultivated Land	Sadar Din	0.22	1,957
47	5161	5191	Cultivated Land	Muhammad Yasrab	0.22	1,957
48	5191	5311	Cultivated Land	Sadar Din	0.89	7,830
49	5311	5326	Cultivated Land	Muhammad Ramzan	0.11	979
50	5326	5371	Cultivated Land	Muhammad Sadiq	0.33	2,936
51	5371	5401	Cultivated Land	Abdul Ghafoor	0.22	1,957
52	5401	5431	Cultivated Land	Ghulam Muhammad	0.22	1,957
53	5431	5521	Cultivated Land	Fazil	0.67	5,872
54	5521	5581	Cultivated Land	Khizar	0.44	3,915
55	5581	5671	Cultivated Land	Altaf	0.67	5,872
56	5671	5761	Cultivated Land	Malik Aslam	0.67	5,872
57	5761	5941	Cultivated Land	Tasawar	1.33	11,745
58	5941	5971	Cultivated Land	Mazahar	0.22	1,957
59	5971	6151	Cultivated Land	Haq Nawaz	1.33	11,745
60	6151	6331	Cultivated Land	Muhamam S/O Bahadar	1.33	11,745
61	6331	6391	Cultivated Land	Iqbal	0.44	3,915
62	6391	6631	Cultivated Land	Muhammad Mushtaq	1.78	15,660
63	6631	6751	Cultivated Land	Kazim Shah	0.89	7,830
64	6751	6901	Cultivated Land	Waris Shah	1.11	9,787
65	6901	7021	Cultivated Land	Muhammad Abbas	0.89	7,830
66	7021	7141	Cultivated Land	Zafar Ali	0.89	7,830
67	7141	7381	Cultivated Land	Mukkhtar Bandeshah	1.78	15,660
68	7381	7501	Cultivated Land	Muhammad Hussain	0.89	7,830
69	7501	7561	Cultivated Land	Arif Ali Bandeshah	0.44	3,915
70	7561	7621	Cultivated Land	Arif Ali Bandeshah	0.44	3,915
71	7621	7651	Cultivated Land	Maqbool Ahmad	0.22	1,957
72	7651	7711	Cultivated Land	Arif Ali Bandeshah	0.44	3,915
73	7711	7771	Cultivated Land	Arif Ali Bandeshah	0.44	3,915
74	7771	7801	Cultivated Land	Arif Ali Bandeshah	0.22	1,957
75	7801	7861	Cultivated Land	Arif Ali Bandeshah	0.44	3,915
76	7861	7921	Cultivated Land	Ch. Mumtaz	0.44	3,915
77	7921	7981	Cultivated Land	Maqbool S/O Buland	0.44	3,915
78	7981	8101	Cultivated Land	Abdul Karim	0.89	7,830
79	8101	8191	Cultivated Land	Liaqat Ali	0.67	5,872
80	8191	8221	Cultivated Land	Ch. Aslam	0.22	1,957
81	8221	8281	Cultivated Land	Ch. Aslam	0.44	3,915
82	8281	8341	Cultivated Land	Shaukat Ali	0.44	3,915
83	8341	8401	Cultivated Land	Shaukat Ali	0.44	3,915
84	8401	8461	Cultivated Land	Muhammad Chaman	0.44	3,915
85	8461	8551	Cultivated Land	Dil Muhammad	0.67	5,872
86	8551	8611	Cultivated Land	Muhammad Iqbal	0.44	3,915
87	8611	8671	Cultivated Land	Muhammad Rafique	0.44	3,915

No	From (m)	To (m)	Land Use	Owners/Cultivators	Area (Acres)	Amount (Rs.)
88	8671	8731	Cultivated Land	Gul Muhammad	0.44	3,915
89	8731	8791	Cultivated Land	Gul Muhammad	0.44	3,915
90	8791	8821	Cultivated Land	Gul Muhammad	0.22	1,957
91	8821	8851	Cultivated Land	Muhammad Akram	0.22	1,957
92	8851	8881	Cultivated Land	Ghulam Shabbir	0.22	1,957
93	8881	8911	Cultivated Land	Muhammad Akram	0.22	1,957
94	8911	8941	Cultivated Land	Ghulam Abbas	0.22	1,957
95	8941	8971	Cultivated Land	Ghulam Shabbir	0.22	1,957
96	8971	9001	Cultivated Land	Shaukat Ali	0.22	1,957
97	9001	9031	Cultivated Land	Muhammad Sadiq	0.22	1,957
98	9031	9061	Cultivated Land	Muhammad Shafi	0.22	1,957
99	9061	9106	Cultivated Land	Ghulam Farid	0.33	2,936
100	9106	9151	Cultivated Land	Ghulam Sarwar	0.33	2,936
101	9151	9181	Cultivated Land	Muhammad Nawaz	0.22	1,957
102	9181	9301	Cultivated Land	Khan Muhammad	0.89	7,830
103	9301	9541	Cultivated Land	Muhammad Bashir	1.78	15,660
104	9541	9661	Cultivated Land	Qasim	0.89	7,830
105	9661	9901	Cultivated Land	Rasheed S/O Ali Muhammad	1.78	15,660
106	9901	10021	Cultivated Land	Manzoor Ahmad	0.89	7,830
107	10021	10351	Cultivated Land	Haji Rasheed	2.45	21,532
108	10351	10501	Cultivated Land	Muhammad Akram	1.11	9,787
109	10501	10651	Cultivated Land	Ahmad	1.11	9,787
110	10651	10681	Cultivated Land	Zulfiqar	0.22	1,957
111	10681	10732	Cultivated Land	Nasir Khan	0.38	3,328
112	10732	10792	Cultivated Land	Mithoo	0.44	3,915
113	10792	10852	Cultivated Land	Islam	0.44	3,915
114	10852	10912	Cultivated Land	Pannu	0.44	3,915
115	10912	10972	Cultivated Land	Muhammad Afzal	0.44	3,915
116	10972	11032	Cultivated Land	Qalab Khan	0.44	3,915
117	11032	11152	Cultivated Land	Shahid Abbas	0.89	7,830
118	11152	11212	Cultivated Land	Bashir Khan	0.44	3,915
119	11212	11272	Cultivated Land	Asghar Ali Pahor	0.44	3,915
120	-	-	Estimated number of trees to be removed: 35	-	-	70,000
			Total		83.32	805,477

Crop Compensation: Kot Addu - Chowk Azam Transmission Line²⁸

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
1	0	340	Cultivated Land	Ch Abdul Wahab	2.52	11,092
2	340	680	Cultivated Land	Ch Razzaq S/O Nizim	2.52	11,092

²⁸ The compensation amount has been estimated based upon 1 wheat-crop season; Rs 4,400 per acre per season.

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
3	680	1020	Partially cultivated	Rayasat Ali	0	0
4	1020	1360	Cultivated Land	Munshi Mohajir	2.52	11,092
5	1360	1700	Cultivated Land	Mahr Khadim	2.52	11,092
6	1700	2040	Cultivated Land	Mashori	2.52	11,092
7	2040	2380	Cultivated Land	Rana Ghafar	2.52	11,092
8	2380	2720	Cultivated Land	Mashri	2.52	11,092
9	2720	3060	Barren land	-:	0	0
10	3060	3400	Cultivated Land	Sharfoo Araien	2.52	11,092
11	3400	3740	Cultivated Land	Khuda Bukhsh	2.52	11,092
12	3740	4080	Cultivated Land	Shahid	2.52	11,092
13	4080	4420	Cultivated Land	Ghulam Rasool	2.52	11,092
14	4420	4760	Cultivated Land	M.Nawaz	2.52	11,092
15	4760	5100	Cultivated Land	Mnazoor Hussain,	2.52	11,092
16	5100	5440	Cultivated Land	Yar Muhammad	2.52	11,092
17	5440	5780	Cultivated Land	M.Ayoub	2.52	11,092
18	5780	6120	Cultivated Land	Sharif	2.52	11,092
19	6120	6460	Cultivated Land	Chudhary Khalid	2.52	11,092
20	6460	6800	Cultivated Land	Fouji Haider	2.52	11,092
21	6800	7140	Cultivated Land	Munir Ahmad	2.52	11,092
22	7140	7480	Cultivated Land	Abdullah Khan	2.52	11,092
23	7480	7820	Cultivated Land	Kamal Chuan	2.52	11,092
24	7820	8160	Cultivated Land	Allah Dewaya	2.52	11,092
25	8160	8500	Cultivated Land	Abdul Aziz	2.52	11,092
26	8500	8840	Cultivated Land	Malik Zulfiqar	2.52	11,092
27	8840	9180	Cultivated Land	Malik IJaz	2.52	11,092
28	9180	9520	Cultivated Land	Qari Mushtaq	2.52	11,092
29	9520	9860	Cultivated Land	Muatafa	2.52	11,092
30	9860	10200	Cultivated Land	Bashir Ahmad	2.52	11,092
31	10200	10540	Cultivated Land	Allah Wasaya	2.52	11,092
32	10540	10880	Barren land	Manzoor Hussain	0	0
33	10880	11220	Barren land	Muhammad Nawaz	0	0
34	11220	11560	Barren land	Nazar Awan	0	0
35	11560	11900	Barren land	Nazar Awan	0	0
36	11900	12240	Barren land	Muhammad Ramzan	0	0
37	12240	12580	Barren land	Manzoor Shah	0	0
38	12580	12920	Barren land	Hadi Hussain	0	0
39	12920	13260	Barren land	Sajjad Hussain Shah	0	0
40	13260	13600	Barren land	Ghulam Yasin	0	0
41	13600	13940	Barren land	Ghulam Yasin	0	0
42	13940	14280	Barren land	Allah Bux	0	0
43	14280	14620	Barren land	Muhammad Ashiq	0	0
44	14620	14960	Barren land	Zafar Hussain	0	0
45	14960	15300	Barren land	Ghulam Shabbir	0	0
46	15300	15640	Barren land	Malik Ajmal	0	0
47	15640	15980	Barren land	Sultan Mehmood Hnaira	0	0
48	15980	16320	Barren land	Ghulam Mustafa	0	0

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
49	16320	16660	Barren land	Abdul Aziz	0	0
50	16660	17000	Cultivated Land	Asadulah Pathan	2.52	11,092
51	17000	17340	Cultivated Land	Ghulam Fareed	2.52	11,092
52	17340	17680	Cultivated Land	Mustafa Hanjra	2.52	11,092
53	17680	18020	Cultivated Land	Malik Bilal	2.52	11,092
54	18020	18360	Cultivated Land	Bashir Ahmad	2.52	11,092
55	18360	18700	Cultivated Land	Umer Khan	2.52	11,092
56	18700	19040	Cultivated Land	Bashir Ahmad	2.52	11,092
57	19040	19380	Cultivated Land	Fida Hussain	2.52	11,092
58	19380	19720	Cultivated Land	M.Shafi	2.52	11,092
59	19720	20060	Cultivated Land	Ghulam Shafi	2.52	11,092
60	20060	20400	Cultivated Land	M.Ayoub	2.52	11,092
61	20400	20740	Cultivated Land	M.Ayoub	2.52	11,092
62	20740	21080	Cultivated Land	M.Mushtaq	2.52	11,092
63	21080	21420	Cultivated Land	Qabrsitan	2.52	11,092
64	21420	21760	Cultivated Land	M.Hanif	2.52	11,092
65	21760	22100	Cultivated Land	Haji Ayoub	2.52	11,092
66	22100	22440	Cultivated Land	M.Ismail	2.52	11,092
67	22440	22780	Cultivated Land	Sahib Ali	2.52	11,092
68	22780	23120	Cultivated Land	M.Younas	2.52	11,092
69	23120	23460	Cultivated Land	Anwar Ali	2.52	11,092
70	23460	23800	Cultivated Land	Iftekhar	2.52	11,092
71	23800	24140	Cultivated Land	M.Aslam	2.52	11,092
72	24140	24480	Cultivated Land	Malik Sultan Hanjra	2.52	11,092
73	24480	24820	Cultivated Land	Malik Sultan Hanjra	2.52	11,092
74	24820	25160	Cultivated Land	Rab Nawaz	2.52	11,092
75	25160	25500	Cultivated Land	Zulfiqar Ali	2.52	11,092
76	25500	25840	Cultivated Land	M.Akhtar	2.52	11,092
77	25840	26180	Cultivated Land	M.Khalid	2.52	11,092
78	26180	26520	Cultivated Land	Abdul Karem	2.52	11,092
79	26520	26860	Cultivated Land	Manzoor Ahmad	2.52	11,092
80	26860	27200	Cultivated Land	Qasim Hussain	2.52	11,092
81	27200	27540	Cultivated Land	Sakhawat Muhmmad	2.52	11,092
82	27540	27880	Cultivated Land	Hafiz Yar Muhammad	2.52	11,092
83	27880	28220	Cultivated Land	Merhar Ghulam Hussain	2.52	11,092
84	28220	28560	Cultivated Land	Zaffar Iqbal	2.52	11,092
85	28560	28900	Cultivated Land	Ghulam Muhammad	2.52	11,092
86	28900	29240	Cultivated Land	Mehar Ghulam Muhammad	2.52	11,092
87	29240	29580	Cultivated Land	Dr.M.Shafi	2.52	11,092
88	29580	29920	Cultivated Land	Shadi Khan	2.52	11,092
89	29920	30260	Cultivated Land	Masood Khan	2.52	11,092
90	30260	30600	Cultivated Land	M.Arshad	2.52	11,092
91	30600	30940	Cultivated Land	Gull Hussain Khan	2.52	11,092
92	30940	31280	Cultivated Land	Zamir Gul Khan	2.52	11,092
93	31280	31620	Cultivated Land	Bashir Ahmad	2.52	11,092

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
94	31620	31960	Cultivated Land	Ijaz Hussain	2.52	11,092
95	31960	32300	Cultivated Land	Rasheed Ahmad	2.52	11,092
96	32300	32640	Cultivated Land	Siddique Hussain	2.52	11,092
97	32640	32980	Cultivated Land	Ashiq Hussain	2.52	11,092
98	32980	33320	Cultivated Land	Ghulam Surani	2.52	11,092
99	33320	33660	Cultivated Land	Ghulam Surani	2.52	11,092
100	33660	34000	Cultivated Land	Government land Shoukat Ali	2.52	11,092
101	34000	34340	Cultivated Land	Shoukat Ali	2.52	11,092
102	34340	34680	Cultivated Land	Rehamt Ali	2.52	11,092
103	34680	35020	Cultivated Land	Rehamt Ali	2.52	11,092
104	35020	35360	Cultivated Land	M.Sadiq	2.52	11,092
105	35360	35700	Cultivated Land	M.Sadiq	2.52	11,092
106	35700	36040	Cultivated Land	M.Riaz	2.52	11,092
107	36040	36380	Cultivated Land	M.Riaz	2.52	11,092
108	36380	36720	Cultivated Land	M.Riaz	2.52	11,092
109	36720	37060	Cultivated Land	Karem Bux	2.52	11,092
110	37060	37400	Cultivated Land	Khokhar Textile Mills	2.52	11,092
111	37400	37740	Cultivated Land	Khokhar Textile Mills	2.52	11,092
112	37740	38080	Cultivated Land	Khokhar Textile Mills	2.52	11,092
113	38080	38420	Cultivated Land	Sarfraz Khan	2.52	11,092
114	38420	38760	Cultivated Land	Sarfraz Khan	2.52	11,092
115	38760	39100	Cultivated Land	Sarfraz Khan	2.52	11,092
116	39100	39440	Cultivated Land	M.Khalid	2.52	11,092
117	39440	39780	Cultivated Land	M.Ali	2.52	11,092
118	39780	40120	Cultivated Land	Munawwar Hussain	2.52	11,092
119	40120	40460	Cultivated Land	Dr M.Iqbal	2.52	11,092
120	40460	40800	Cultivated Land	Munir Ahmad	2.52	11,092
121	40800	41140	Cultivated Land	Dr.Anwar	2.52	11,092
122	41140	41480	Cultivated Land	Nazir Ahmad	2.52	11,092
123	41480	41820	Cultivated Land	Majeed Ahmad	2.52	11,092
124	41820	42160	Cultivated Land	Mukhtiar Hussain	2.52	11,092
125	42160	42500	Cultivated Land	Asif	2.52	11,092
126	42500	42840	Cultivated Land	Ehsan Ullah	2.52	11,092
127	42840	43180	Cultivated Land	Mubarak Ali	2.52	11,092
128	43180	43520	Cultivated Land	M.Arif	2.52	11,092
129	43520	43860	Cultivated Land	Ch.M.Nawaz	2.52	11,092
130	43860	44200	Cultivated Land	Ch.M.Nawaz	2.52	11,092
131	44200	44540	Cultivated Land	Ch.M.Nawaz	2.52	11,092
132	44540	44880	Cultivated Land	Government land	2.52	11,092
133	44880	45220	Cultivated Land	Government land	2.52	11,092
134	45220	45560	Cultivated Land	Government land	2.52	11,092
135	45560	45900	Cultivated Land	M.Iqbal	2.52	11,092
136	45900	46240	Barren land	Government land	0	0
137	46240	46580	Cultivated Land	Ali Ahmad Jut	2.52	11,092
138	46580	46920	Cultivated Land	Rana Akram	2.52	11,092

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
139	46920	47260	Cultivated Land	Mubarak Ali Gujjar	2.52	11,092
140	47260	47600	Cultivated Land	M.Rafiq	2.52	11,092
141	47600	47940	Cultivated Land	Master Mushtaq	2.52	11,092
142	47940	48280	Cultivated Land	Ghulam Rasool Arain	2.52	11,092
143	48280	48620	Cultivated Land	Zulfiqar	2.52	11,092
144	48620	48960	Cultivated Land	Ghulam abbas	2.52	11,092
145	48960	49300	Cultivated Land	Rana Latif	2.52	11,092
146	49300	49640	Cultivated Land	Mustafa,	2.52	11,092
147	49640	49980	Cultivated Land	M.Arshad	2.52	11,092
148	49980	50320	Cultivated Land	M.Arshad	2.52	11,092
149	50320	50660	Cultivated Land	Sharif Masih,	2.52	11,092
150	50660	51000	Cultivated Land	Saleem Muhammad	2.52	11,092
151	51000	51340	Cultivated Land	Habib Ullah	2.52	11,092
152	51340	51680	Cultivated Land	Zaffar	2.52	11,092
153	51680	52020	Cultivated Land	Allah Ditta	2.52	11,092
154	52020	52360	Cultivated Land	M.Aslam	2.52	11,092
155	52360	52700	Cultivated Land	Rasheed Masih	2.52	11,092
156	52700	53040	Cultivated Land	Rasheed Masih	2.52	11,092
157	53040	53380	Cultivated Land	Bashir Masih	2.52	11,092
158	53380	53720	Cultivated Land	Mansha Masih	2.52	11,092
159	53720	54060	Cultivated Land	Khamisha Sadiq	2.52	11,092
160	54060	54400	Cultivated Land	Ghulam Rasool	2.52	11,092
161	54400	54740	Barren	Government land	0	0
162	54740	55080	Cultivated Land	Dilawar	2.52	11,092
163	55080	55420	Cultivated Land	Khalid Rahi,	2.52	11,092
164	55420	55760	Cultivated Land	Arif	2.52	11,092
165	55760	56100	Cultivated Land	Arif	2.52	11,092
166	56100	56440	Cultivated Land	Arif	2.52	11,092
167	56440	56780	Cultivated Land	Arif	2.52	11,092
168	56780	57120	Cultivated Land	Arif	2.52	11,092
169	57120	57460	Cultivated Land	Ch.Anwar	2.52	11,092
170	57460	57800	Barren	Government land	0	0
171	57800	58140	Barren	Government land	0	0
172	58140	58480	Barren	Government land	0	0
173	58480	58820	Uncultivated	Ghulam Haider	0	0
174	58820	59160	Uncultivated	Ghulam Haider	0	0
175	59160	59500	Partially cultivated	Qasim Ali	1.26	5,546
176	59500	59840	Partially cultivated	Ijaz, Government land	1.26	5,546
177	59840	60180	Cultivated Land	Haji Faiz Ullah	2.52	11,092
178	60180	60520	Partially cultivated	Haji Faiz Ullah	1.26	5,546
179	60520	60860	Uncultivated	Government land	0	0
180	60860	61200	Cultivated Land	Government land	2.52	11,092
181	61200	61540	Cultivated Land	Habib Ullah	2.52	11,092
182	61540	61880	Cultivated Land	Habib Ullah	2.52	11,092
183	61880	62220	Cultivated Land	Government land	2.52	11,092
184	62220	62560	Cultivated Land	Maghar Khan	2.52	11,092

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
185	62560	62900	Cultivated Land	Ismil Ullah	2.52	11,092
186	62900	63240	Cultivated Land	Asmat Ullah	2.52	11,092
187	63240	63580	Partially cultivated	M.Shafi Kareem	1.26	5,546
188	63580	63920	Partially cultivated	M.Zahid	1.26	5,546
189	63920	64260	Cultivated Land	M.Amjad	2.52	11,092
190	64260	64600	Cultivated Land	Abdul Hameed	2.52	11,092
191	64600	64940	Partially cultivated	M.Sultan Kuchai	1.26	5,546
192	64940	65280	Cultivated Land	Dr.Amir Bux	2.52	11,092
193	65280	65620	Cultivated Land	M.Aslam Jut	2.52	11,092
194	65620	65960	Partially cultivated	Rana Arshad	1.26	5,546
195	65960	66300	Cultivated Land	M.Mukhtiar	2.52	11,092
196	66300	66640	Partially cultivated	Nawaz Khan	1.26	5,546
197	66640	66980	Cultivated Land	Fida Khan	2.52	11,092
198	66980	67320	Cultivated Land	Sarfraz Khan	2.52	11,092
199	67320	67660	Barren	Amanullah	0	0
200	67660	68000	Barren	Government land	0	0
201	68000	68340	Partially cultivated	Allah Ditta	1.26	5,546
202	68340	68680	Barren	Government land	0	0
203	68680	69020	Cultivated Land	Noor Muhammad	2.52	11,092
204	69020	69360	Cultivated Land	Qadir Bux	2.52	11,092
205	69360	69700	Cultivated Land	Qadir Bux	2.52	11,092
206	69700	70040	Barren	Government land	0	0
207	70040	70380	Baren	Government land	0	0
208	70380	70720	Cultivated Land	M.Asghar	2.52	11,092
209	70720	71060	Cultivated Land	Khuda Bux	2.52	11,092
210	71060	71400	Cultivated Land	M.Riaz	2.52	11,092
211	71400	71740	Cultivated Land	M.Sardar	2.52	11,092
212	71740	72080	Cultivated Land	Ghulam Qasim	2.52	11,092
213	72080	72420	Partially cultivated	Government land, M.Saleem	1.26	5,546
214	72420	72760	Cultivated Land	Saeed Ahmad khan	2.52	11,092
215	72760	73100	Cultivated Land	Saeed Ahmad khan	2.52	11,092
216	73100	73440	Cultivated Land	Pir Bux	2.52	11,092
217	73440	73780	Cultivated Land	M.Nadem	2.52	11,092
218	73780	74120	Cultivated Land	Sultan	2.52	11,092
219	74120	74460	Cultivated Land	M.Fareed	2.52	11,092
220	74460	74800	Cultivated Land	M.Fareed	2.52	11,092
221	74800	75140	Cultivated Land	Abdul Hameed	2.52	11,092
222	75140	75480	Cultivated Land	Abdul Hameed	2.52	11,092
223	75480	75820	Cultivated Land	M.Amin	2.52	11,092
224	75820	76160	Cultivated Land	Dr.Manzoor Ahmad	2.52	11,092
225	76160	76500	Cultivated Land	M.Javed	2.52	11,092
226	76500	76840	Cultivated Land	M.Javed	2.52	11,092
227	76840	77180	Cultivated Land	M.Anwar	2.52	11,092
228	77180	77520	Cultivated Land	M.Anwar	2.52	11,092
229	77520	77860	Cultivated Land	M.Anwar	2.52	11,092

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
230	77860	78200	Cultivated Land	Qadir Bux Hiraj	2.52	11,092
231	78200	78540	Partially cultivated	Manzoor Ahmad	1.26	5,546
232	78540	78880	Partially cultivated	Government land	1.26	5,546
233	78880	79220	Cultivated Land	M.Ashraf	2.52	11,092
234	79220	79560	Cultivated Land	Abbdul Ghaffar	2.52	11,092
235	79560	79900	Cultivated Land	Nazir Ahmad	2.52	11,092
236	79900	80240	Cultivated Land	Ch.Lal Din	2.52	11,092
237	80240	80580	Cultivated Land	Haji Mushtaq Ahmad	2.52	11,092
238	80580	80920	Cultivated Land	Kareem Bux	2.52	11,092
239	80920	81260	Cultivated Land	Riaz Ahmad	2.52	11,092
240	81260	81600	Cultivated Land	Sana Ullah	2.52	11,092
241	81600	81940	Cultivated Land	M.Akram	2.52	11,092
242	81940	82280	Sandy Area	Khurshid Muhammad S/O Ghulam Muhammad	0	0
243	82280	82620	Cultivated Area	Khurshid Muhammad	2.52	11,092
244	82620	82960	Cultivated Area	Muhammad Akram S/O Khuda Bux	2.52	11,092
245	82960	83300	Cultivated Area	Muhammad Aslam	2.52	11,092
246	83300	83640	Cultivated Area	Muhammad Aslam	2.52	11,092
247	83640	83980	Cultivated Area	Sher Muhammad S/O Muhammad Ramzan	2.52	11,092
248	83980	84320	Cultivated Area	Ijaz Hussain S/O Pir Bux	2.52	11,092
249	84320	84660	Cultivated Area	Ghulam Nabi S/O Muhammad Siddique	2.52	11,092
250	84660	85000	Cultivated Area	Ghulam Idress S/O Suleman	2.52	11,092
251	85000	85340	Cultivated Area	Gul Muhammad S/O Qadir Bux	2.52	11,092
252	85340	85680	Cultivated Area	Faiz Rasool S/O Qadir Bux	2.52	11,092
253	85680	86020	Cultivated Area	Government land	2.52	11,092
254	86020	86360	Cultivated Area	Muhammad Butta S/O Noor Muhammad	2.52	11,092
255	86360	86700	Partially cultivated	Din Muhammad S/O Ghulam Muhammad	1.26	5,546
256	86700	87040	Cultivated Area	Noor Muhammad S/O Taj Muhammad	2.52	11,092
257	87040	87380	Barren land	Ghulam Muhammad S/O Taj Muhammad	0	0
258	87380	87720	Cultivated Area	Government land	2.52	11,092
259	87720	88060	Sandy Area	Muhammad Bux	0	0
260	88060	88400	Cultivated Area	Muhammad Bux	2.52	11,092
261	88400	88740	Cultivated Area	Government land	2.52	11,092
262	88740	89080	Cultivated Area	Ghulam Hussain S/O Rehman Ali	2.52	11,092
263	89080	89420	Cultivated Area	Maher Mazhar S/O Ghulam Muhammad	2.52	11,092
264	89420	89760	Cultivated Area	Nazar Shah S/O Pir Shah	2.52	11,092

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
265	89760	90100	Cultivated Area	Karim Bux S/O Bhaja	2.52	11,092
266	90100	90440	Cultivated Area	Muhammd Amin S/O Meher Pathana	2.52	11,092
267	90440	90780	Cultivated Area	Sultan Mehmood S/O Amir Muhammad	2.52	11,092
268	90780	91120	Un-Cultivated Area	Nasir S/O Ahmed Yar	0	0
269	91120	91460	Cultivated Area	Rafi Ullah S/O Fateh Muhammad	2.52	11,092
270	91460	91800	Cultivated Area	Altah Hussain S/O Sher Muhammad	2.52	11,092
271	91800	92140	Sandy Area	Govt: Property	0	0
272	92140	92480	Cultivated Area	Ghulam Rasool S/O Allah Wasaya	2.52	11,092
273	92480	92820	Cultivated Area	Ghulam Rasool	2.52	11,092
274	92820	93160	Cultivated Area	Ghulam Hassan S/O Allah Bux	2.52	11,092
275	93160	93500	Cultivated Area	Mliak Muhammad	2.52	11,092
276	93500	93840	Cultivated Area	Muhammad Yaqoob S/O Ghulam Farid Jat	2.52	11,092
277	93840	94180	Cultivated Area	Maher Muhammad Mushtaq S/O Maher M.Sharif	2.52	11,092
278	94180	94520	Some Cultivated Area	Muhammad Amir Sukhara	1.26	5,546
279	94520	94860	Some Cultivated Area	Allah Bux S/O Muhammad Bux	1.26	5,546
280	94860	95200	Cultivated Area	Haji Gulzar Hussain S/O Khair Din	2.52	11,092
281	95200	95540	Half Span Cultivated	Muhammad Yaseen S/O Muhammad Amin Duloo	1.26	5,546
282	95540	95880	Half Span Cultivated	Atta Muhammad S/O Allah Yar	1.26	5,546
283	95880	96220	Cultivated Area	Zawar Hussain S/O Ghulam Methala	1.26	11,092
284	96220	96560	Cultivated Area	Zawar Hussain	2.52	11,092
285	96560	96900	Cultivated Area	Rab Nawaz S/O Ghulam Rasool Arain	2.52	11,092
286	96900	97240	Cultivated Area	Mukhtar Ahmed S/O Nazir Ahmed Arain	2.52	11,092
287	97240	97580	Half Span Cultivated	Akbar S/O Ali Muhammad	1.26	5,546
288	97580	97920	Half Span Cultivated	Ghulam Hussain Awan	1.26	5,546
289	97920	98260	Half Span Cultivated	Shoukat Ali S/O Sultan Awaz	1.26	5,546
290	98260	98600	Cultivated Area	Manzoor Khan Awan	2.52	11,092
291	98600	98940	Cultivated Area	Latif Awan	2.52	11,092
292	98940	99280	Cultivated Area	Abdul Jabbar Awan	2.52	11,092
293	99280	99620	Cultivated Area	Azam Awan	2.52	11,092
294	99620	99960	Cultivated Area	Malik Ghulam Rasool	2.52	11,092
295	99960	100300	Some Cultivated Area	Master Nazir Ahmed Khushi Muhammad Malik Gous, Malik	1.26	5,546

No	From (m)	To (m)	Land Use	Land Owner/Cultivator	Area (Acres)	Amount (Rs)
				Ghulam Rasool		
296	100300	100640	Govt: Property	Govt: Property	0	0
297	100640	100980	Cultivated Area	Malik Amir Qalam	2.52	11,092
298	100980	101320		Riaz Hussain Joyia, Baba Farzand Ali Sajjid Arain, Mian M.Sher Muhammad, Liaqat Awan, Fuhig Sadiq M.Ashraf Insari ,M.Yousaf Gondal	0	0
			Un- Cultivated Area		0	0
299	101320	101660	Un- Cultivated Area	Talib Moughal	0	0
300	101660	102000		M.Ramzan Sniber, Nawaz Baloch, Saif –ul-Rehman, Dost Muhammad Iftikhar Arain, Ahmed Arain Amir Muhammad	0	0
			Un- Cultivated Area		0	0
301	102000	102340	Cultivated Area	Muhammad Usman	2.52	11,092
302	102340	102680	Cultivated Area	Haji Khaliq Baloch	2.52	11,092
303	102680	103020	Cultivated Area		2.52	11,092
304	103020	103360	Cultivated Area	Court Yard	2.52	11,092
305	103360	103700		Muhammad Sharif S/O Muhammad Yousaf	2.52	11,092
			Cultivated Area		2.52	11,092
306	103700	104040		Muhammad Aslam S/O Mubark Ali	2.52	11,092
			Cultivated Area		2.52	11,092
307	104040	104380		Bashir Ahmed, Abdul Hameed, Fazal, Faqir Ahmed, Abdul Azaz, Javad , Abdul Hakim, M.Azeem Bashir Ahmed Mukhtar M.Ramzan	1.26	5,546
			Some Area Cultivated		1.26	5,546
308	104380	104720	Govt: Property	Government land	0	0
			Total		638.82	2,817,368