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Task 1.13: AAWDC Project Land Acquisition and Resettlement Policy Framework

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Glossary of Terms and Abbreviations

AAWDC	Aqaba-Amman Water Desalination and Conveyance
ADC	Aqaba Development Corporation
ASEZA	Aqaba Special Economic Zone Authority
BOT	Build-Operate-Transfer
BPS	Booster Pump Station
BPT	Break Pressure Tank
EIB	European Investment Bank
ERI	Economic Resilience Initiative
ESIA	Environmental and Social Impact Assessment
DLS	Department of Lands and Survey
Km	Kilometre
LAL	Land Acquisition Law
LARAP	Land Acquisition and Resettlement Action Plan
LARPF	Land Acquisition and Resettlement Policy Framework
MCM	Million Cubic Meters
MoEnv	Ministry of Environment
MWI	Ministry of Water and Irrigation
PAP	Project Affected Person
REOL	Real Estate Ownership Law No. 13 of 2019
RGT	Regulating Tank
SWRO	Sea Water Reverse Osmosis
WAJ	Water Authority of Jordan

1. Introduction

The Aqaba-Amman Water Desalination and Conveyance (AAWDC) Project aims at reducing the deficit in the country's already short water resources by providing a safe and reliable freshwater supply for Amman and other governorates in Jordan in addition to areas along the Project pipeline route. The Project includes developing a water supply infrastructure entirely within Jordan's boundaries and control.

Jordan has limited surface and groundwater resources, such that the available renewable water resources provide an estimated at 100 cubic meters/capita/year, significantly less than the international threshold of 500 cubic meters, which is considered "absolute scarcity". As a result, the only remaining option that provides an entirely in-country and Jordan-controlled new water supply source is the desalination of the Red Sea seawater. In February 2020, the Ministry of Water and Irrigation (MWI) announced the launch of the Aqaba-Amman Water Desalination and Conveyance National Project, describing it as "the largest water generation scheme to be implemented in the history of the Kingdom". In accordance with the relevant water strategy and projections, the Project will generate around 250 MCM/year of drinking water according to the relevant water strategy and projections, after commissioning. The AAWDC Project concept involves the development of infrastructure, to be located entirely within Jordan, starting from the Southern Red Sea coast in Aqaba and ending near the capital city of Amman. The Project will be implemented through a build-operate-transfer (BOT) scheme. The BOT Contractor will construct and operate the Project for the duration of the BOT contract before transferring project's ownership to MWI at the end of the contract period.

The Project is expected to have a wide range of positive and negative environmental and social impacts at the local and national level. In order to identify and assess each of these impacts, an Environmental and Social Impact Assessment (ESIA) study was conducted for the Project. The study adhered to the Jordanian environmental and social regulatory requirements and procedures, as well as the environmental and social standards of the European Investment Bank (EIB) and the requirements of the United States Agency for International Development (USAID). It also follows other relevant environmental and social regulations and international best practices. The ESIA study is undergoing an approval process by the Jordanian Ministry of Environment (MoEnv), Aqaba Special Economic Zone Authority (ASEZA), EIB and the United States Agency for International Development.

The EIB requires the preparation of a Land Acquisition and Resettlement Policy Framework (LARPF) for the AAWDC Project, which will guide the preparation and implementation of future Land Acquisition Resettlement Action Plan (LARAP) by MWI. The LARAP will be developed when detailed information about project sites are finalized and the extent of land acquisition, resettlement and other important variables have been determined. At this stage, the development of the LARAP cannot be undertaken as project details are subject to review by the BOT Developer during the implementation phase. Consequently, during the project preparation phase and prior to the approval of the project, this LARPF is prepared with due consideration of the project-affected communities.

This LARPF is based on the Government of Jordan's laws and procedures and EIBs standards to effectively assess the scale of and responsibilities for addressing all adverse impacts arising from land acquisition and resettlement. This also includes maintaining and improving the living standards of those affected by land acquisition and any other resettlement effects of the project.

1.1. Objectives of the LARPF

Involuntary Resettlement from development projects may cause loss of shelter, loss of income and damage to business in the affected communities thus affecting their assets and livelihoods. Based on the preliminary project design, the construction of the AAWDC project may involve land acquisition and therefore EIB Standard 6 will be triggered, as well as Standard 7 (Rights and Interests of Vulnerable Groups) and Standard 10 (Stakeholder Engagement). However, that based on the current preliminary design of the AAWDC, no physical resettlement is anticipated for the Project.

This LARPF establishes the principles and procedures which will govern the land acquisition process, and compensation entitlements for loss of land or other fixed assets as a result of Project implementation. The LARPF was prepared based on EIB Standard 6, applicable Jordanian laws and regulations, and MWI's procedures for land acquisition and compensation. The LARPF will form the basis for all future resettlement planning for the AAWDC Project by MWI. It ensures that all proper procedures are followed by MWI in the event of potential displacement or

livelihood disruption. It will further ensure that resettlement is implemented in compliance with the EIB Standards as well as World Bank Operational Policies.

The LARPF seeks to reduce potential adverse impacts on project affected persons (PAPs) and to define the planning, preparation and implementation of the resettlement process for the Project based on the following general principles:

- The Project must avoid and/or minimize potential adverse impacts which include involuntary resettlement and/or economic displacement caused by land acquisition;
- Measures to mitigate the adverse impacts (if they cannot be avoided) should be developed to adequately compensate PAPs and to restore their livelihoods;
- Ensure there is no impoverishment of people as a consequence of land acquisition, or acquisition of assets for purposes of implementing the AAWDC Project;
- Ensure that all PAPs are aware about the grievance mechanism which must be easily accessible; and,
- The Project Promoter must institute a consultative, transparent and accountable Involuntary Resettlement process and be committed to follow it.

1.2. Scope of this Report

The LARPF outlines the main legal framework guiding the future resettlement preparation and implementation and the main compensation principles accompanying the process. At a later stage, specific LARAP(s) will be prepared by MWI for the project and be updated as necessary. The LARAP(s) will be prepared and implemented based on the strategy and principles outlined in this document.

This LARPF also provides a legal analysis of the national laws governing land acquisition and asset compensation and compares them with EIB standards. The LARPF is based on the anticipated potential resettlement issues that the AAWDC Project is likely to trigger. It also lists potential risks that could be caused by or associated with the construction and operation of the water conveyance pipeline and related components.

2. Project Description

The AAWDC Project concept involves the development of infrastructure starting from the Southern Red Sea coast in Aqaba and ending in the capital city of Amman. The Project comprises several technical components as follows:

- Seawater Intake System off shore and Intake Pump Station (IPS) on shore;
- Seawater Pipeline from IPS to the Sea Water Reverse Osmosis (SWRO) Desalination Plant;
- SWRO Desalination Plant;
- Brine pipeline from the SWRO Desalination Plant to the IPS and brine outfall system off shore;
- Pump Stations along Conveyance Pipeline from SWRO Desalination Plant to Mudawwara;
- Regulating Tanks;
- Pump Station (PS) in Mudawwara;
- Conveyance Pipeline from Mudawwara to Amman terminating at a pump station next to Amman Development Corridor - PS ADC;
- PS ADC;
- Conveyance Pipeline to Abu Alanda Reservoir;
- Conveyance Pipeline to Al-Muntazah Reservoir;
- Aqaba Reservoir 1 at the BPS2 site; and
- Aqaba Reservoir 2 at the SWRO Desalination Plant site.

The AAWDC Project was developed to address the emerging challenges associated with the on-going water crisis in Jordan, with the primary objective to provide safe and reliable freshwater supply for Amman and other governorates in Jordan and areas along the Project conveyance pipeline route.

A summary of the Project scope of facilities was presented on 25/10/2020 by CDM Smith (Design Team assigned to the Project) for 250 MCM/year production capacity and subsequently updated on September 2021 to the set production capacity of 300 MCM/year is shown in Table 2-1 below.

Table 2-1: Scope of Facilities

Item	Type of Facilities	Description
1	Seawater Intake System and Conveyance Pipeline to the Intake Pump Station	Sized to meet the set production capacity of 300 MCM/year of fresh water at a set plant availability of 97%. The RO plant overall recovery rate was set between 42% and 45%.
2	Seawater Intake Pump Station	
3	Seawater Pipeline from IPS to Desalination Plant	
4	Desalination Plant	
5	Brine Line	Sized to discharge generated brine
6	Conveyance Pipeline from Desalination Plant to Amman PS ADC	250 MCM/year
7	Pump Stations along Conveyance Pipeline from Desal Plant to Amman 1. BPS 1 to 4 2. Mudawarra PS 3. PS ADC	BPS 1 is sized for 300 MCM/year while all other pumping stations are sized for 250 MCM/year
8a	Conveyance Pipeline from PS ADC to Abu Alanda Reservoir	180 MCM/year
8b	Conveyance Pipeline from PS ADC to Al Muntazah Reservoir	70 MCM/year
9	Regulating Tanks on Conveyance Pipeline	250 MCM/year for the tanks that are a part of the conveyance system

A general layout showing the AAWDC Project area along with the project's key components is presented in Figure 2-1.

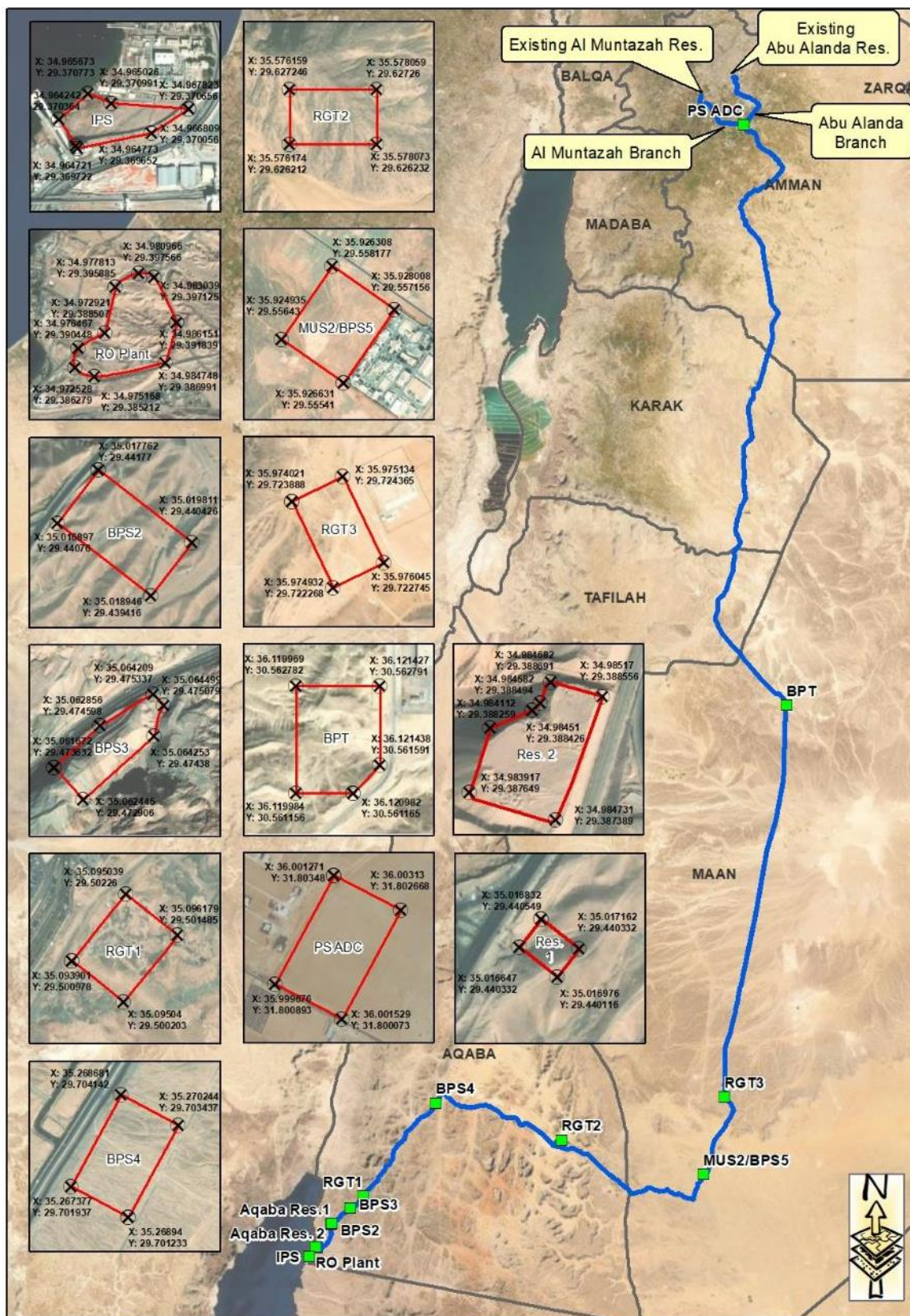


Figure 2-1: General Layout of the AAWDC Project

3. Legislative and Institutional Framework

3.1. Jordanian Legislation

Land and Property Expropriation in Jordan

Land and property expropriation for the public interest projects in Jordan is carried out through established institutional and legal frameworks. This section describes the Jordanian legal and policy framework for land expropriation and discusses the various land and property ownerships. It also outlines the procedures for land and property expropriation.

The Real Estate Ownership Law No. 13 of 2019 is a new legislation in Jordan compiling 13 laws and 19 by-laws and builds on global experiences in tackling challenges in the real estate sector in Jordan. The law takes into account legal stability as well as the social and economic aspects of the real-estate sector.

Compensation of Private Land and Properties

Land acquisition is undertaken in accordance with the Real Estate Ownership Law No. 13 of 2019 (REOL) which recently replaced Decree (12) of 1987. REOL is the legal instrument in Jordan for land acquisition and applies to all cases of land acquisition in the Hashemite Kingdom of Jordan.

Conditions for Land Acquisition

Article 178 and Article 189 of the REOL provide the two main points under which land can be expropriated:

- No land can be taken away unless it is for public benefit and that there is fair and just compensation for any PAPs (Article 178 of the REOL)
- The law requires direct negotiation between the purchasers or public benefit project and land owners until agreement is reached (Article 189 of REOL). In the event that agreement cannot be reached between the two parties, cases can be referred to the courts.

Compensation for Expropriated Land

Article 190 of REOL states that compensation should be fair to both owner and tenant. Owners should be compensated for their properties including (e.g., buildings, improvements, trees) at full replacement cost at market rate.

Compensation Principles

Articles 179-214 of the REOL lists the following key principles and stages under which compensation shall be processed:

- Setting the proper amount of compensation for land value is dependent on:
 - a. The amount of land expropriated;
 - b. The purpose of confiscation;
 - c. The percentage of land confiscated and,
 - d. The status and size of the leftover land.
- The land owner is responsible for paying any previous taxes on the property concerned prior to compensation.
- When final agreement is reached on compensation amount, approval and authentication by the Directorate of Land followed by an authentication of the Cabinet is required.
- The relevant party or the public benefit project is required to pay the compensation to the land owner directly or deposit the full compensation amount in the Treasury under the beneficiary name within three months.
- Non-payment results in a 5% annual interest being added to the compensation starting the day after the three month period.

Land and Property Ownership

Private Land

Article 186 of the REOL specifies that the owner of the property is the person in whose name the property is registered at the Land Registry. If the property is not registered, the person seizing the land on the day of issuance of the Council of Ministers' Resolution to acquire shall, for the purposes of compensation, be considered the owner. This stipulation does not preclude anyone else from claiming ownership through the courts. The entitlements of legally established renters are also confirmed.

Article 192 does not place limit on what a PAP can be compensated for. However, it permits expropriation without compensation for up to 25% of the area of a plot if the purpose of the expropriation is for:

- Linear projects (e.g. the construction, or expansion/widening of a road), or
- The construction of a government housing project.

Article 193 of the REOL stated that, if for the above purposes all the area is expropriated or if what is left is not of use, compensation shall be paid in full for the whole property without any part being acquired for free.

Multiple Ownerships

It is the general practice of the government of Jordan to deal with the multiple owners as a body and to ask them to select a representative to act and negotiate on their behalf. Nonetheless, all owners or shareholders will be entitled to property compensation according to their shares.

Government Land

The process of acquisition of government lands and assets is handled through intra-government discussions and agreements that usually involve the transfer of ownership from one government department to another.

Tribal Land

There are no specific provisions in the REOL or other legislation for tribal lands to be acquired or for the loss of traditional use rights. However, based on the information currently available, all lands affected by the AAWDC Project are registered by the appropriate authority to owners or government departments and none is designated as tribal land. This needs to be re-confirmed by the LARAP.

Improvements and Water Rights

Compensation for farmlands may include separately itemized compensations for features such as walls, greenhouses, wells, water rights, etc.

Article 190 of REOL states that owners should be compensated for their properties which include buildings, improvements, trees and, etc. at full replacement cost. In principle, any damage or injury caused by the project may be compensated. In earlier court decisions on land acquisition in Jordan, it was confirmed that "The property appropriated is the land and the buildings, trees and other fixtures on it including the water tank built in the land. Claiming for equitable compensation includes everything on the property. Previous court decisions also considered that loss of water rights could require compensation.

Crops and Trees

Under the REOL, tree and annual crops are subject to compensation, but no guidelines are provided except that the expropriation shall be in consideration of an equitable compensation.

Renters

The REOL restricts the awards to renters proportionately as a percentage of the compensation for the plot. The highest amounts payable to renters are:

- a. 15% of the compensation of the plot, if the payment is to compensate for property used for industrial or commercial purposes.
- b. 8% of the compensation of the plot, if the payment is to compensate for property used for any other purpose.

The REOL does not preclude private agreements between renters and owners. This may become necessary as reaching a settlement without the agreement of the renter would be unlikely.

Procedures and Mechanisms for Expropriation

Articles 181 through 189 of the Real Estate Ownership Law No. 13 of 2019 define all concerned parties involved in land acquisition and provide a clear summary of the process to be followed including the roles of the various parties.

Figure 4- 1 below provides a flow chart of the land acquisition process adopted by MWI/WAJ for all its projects. It shows the various steps for processing land acquisition requests issued by the relevant department at MWI.

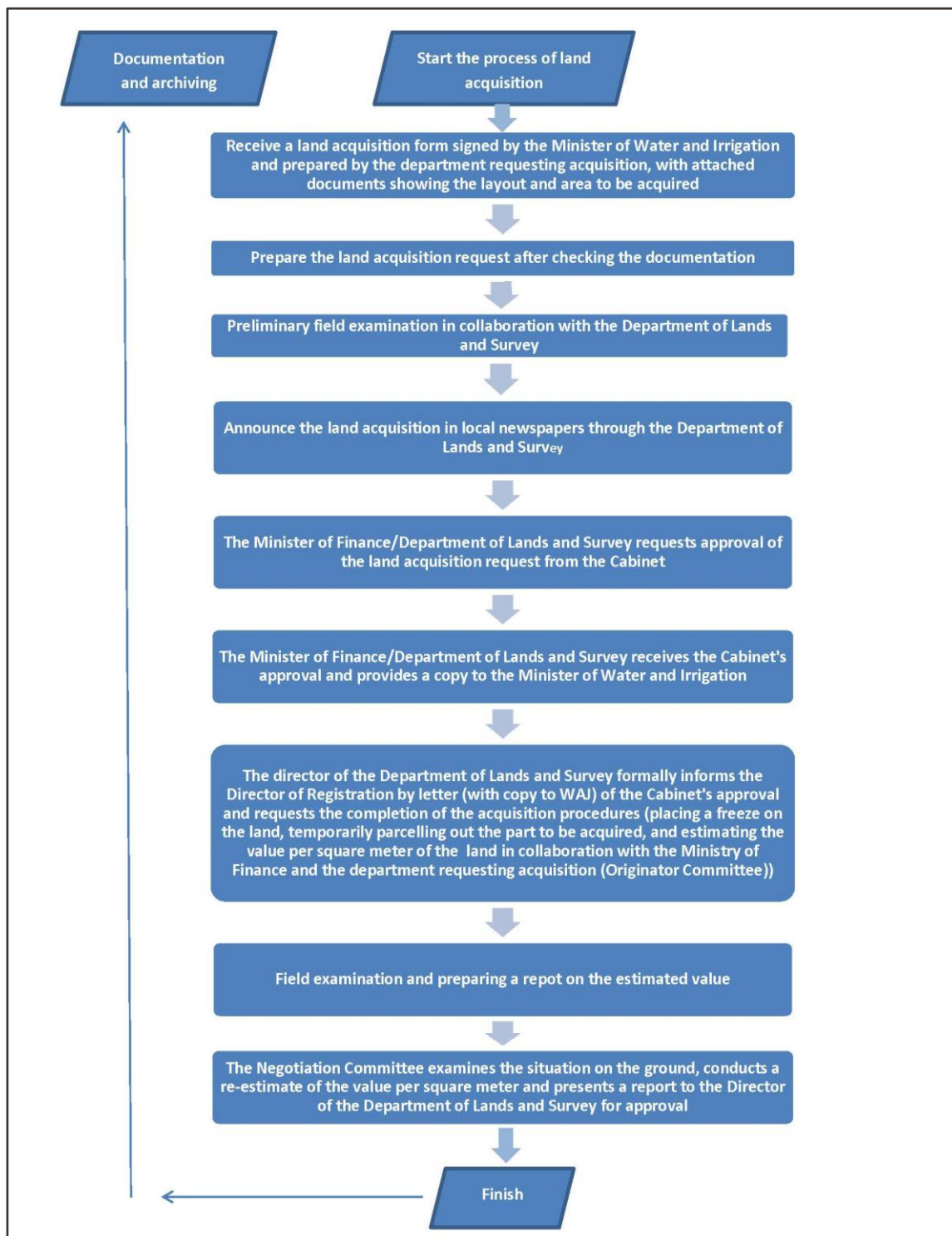


Figure 4-1: Flow chart of the land acquisition process adopted by MWI/WAJ for all projects

Source: MWI

Land Expropriation Approval

Land expropriation requires the Cabinet's approval. When acquiring land for public benefit, projects are required to provide fair compensation and are subject to provide evidence that they have the needed resources to pay compensations relating to their operations.

Articles 188B and Article 189 of the REOL state that direct negotiation between land owners and the relevant purchasing party or public benefit project should take place to allow for agreement to be made on a fair and just level of compensation of any confiscated land. When the parties reach agreement, the project will ensure that compensation for land is directed to the PAPs or placed under bank accounts in their names in accordance with the REOL, Article 198.

Valuation Committee

A valuation committee will be established by the expropriating party and its primary responsibility is to estimate fair compensation for expropriated lands and properties.

According to Jordanian regulations, valuation methods will include the following steps:

- Demonstration of public benefit from the project concerned.
- Assessment of replacement values of confiscated land.
- Establishment of compensation rates for all assets to be confiscated.

Valuations are based on current land values and prices. While the Valuation Committee is essentially governmental, the law specifically empowers the Director of Lands and Surveys to call upon any advice in a review of compensation if necessary.

Residential Buildings

Residential buildings acquisition procedures in Jordan are similar to land acquisition procedures as stated in REOL. Acquisition of residential buildings is not subject to Prime Ministry approval. The process for acquiring residential building is summarized below:

- A committee is formed at the local district or municipality level at the request of the appropriate ministry to value the structures affected. This committee comprises the district representatives of the Ministries represented on the acquisition committee, namely the Ministry of Public Works and Housing, Department of Lands and Survey, Ministry of Finance, Ministry Agriculture; and the Audit Bureau.
- This committee evaluates the affected structures and provides a valuation report. The valuation is given on a unit rate per square meter. This valuation is presented to the owner who may object. A period of 30 days is permitted for objection. The committee may seek additional technical assistance in drawing up their valuation.
- If there is no objection, the valuation report is sent to the Minister of Finance for approval. If objections are raised the valuation is not forwarded to the Minister and negotiations are entered into. If these are successfully concluded the process is restarted and the agreed valuation passed on to the Minister. If no agreement is reached the issue is referred to the courts.
- After ministerial approval the valuation report is forwarded to the Director of Lands and Survey for payment. The funds utilized are drawn from specific appropriate agency budget allocations.

Grievance Procedures

In the event agreement cannot be reached between the two parties, Article 189 of the REOL makes provisions for cases to be referred to the Primary Court that has jurisdiction in the area of the project and/or to higher courts if necessary.

The following grievance procedure is adopted by MWI/WAJ and will be used for the AAWDC Project in cases where PAPs contest the proposed compensation value:

1. The estimation of the value per square meter of the land to be acquired depends on the administrative value estimate set by the Department of Lands and Survey which is posted on the publicly accessible website of the Department of Lands and Survey.
2. The field investigation report and the Originator Committee report are prepared with a description of the plot of land to be acquired in addition to the administrative value estimate per square meter.

3. The owner/owners of the plot of land to be acquired will be provided with an estimate of the administrative value in addition to a table showing the consequential damages affecting their land and corresponding financial compensations.
4. It is noted that the REOL is currently under study to grant authority to the director of the Department of Lands and Survey to enable adding by up to 25% of the administrative value in case the owner/owners contest the compensation value offered to them.
5. In the event that the owner/owners do not accept the price estimate listed in the Originator Committee report, they can resort to court.
6. It is noted that a text message is sent to the owner/owners of the land to be acquired by the Department of Lands and Survey for the purpose of informing them of the procedures (actions) that have been taken on their land.
7. Land acquisition announcements are published in the local newspapers and posted on the publicly accessible website of the Department of Lands and Survey. It will soon be also possible to post it on the website of WAJ.

3.2. EIB Resettlement Requirements

The EIB Standard 6 outlines the responsibilities of the project promoter with regard to managing involuntary resettlement risks and impacts. The Standard states that the responsibility of the project promoter is to avoid involuntary resettlement in the first instance; and to minimize and mitigate where involuntary resettlement cannot be avoided, with a view to improving or at least restoring their socio-economic and livelihood conditions.

The following table presents an overview of the main requirements of the EIB's Involuntary Resettlement - Standard 6.

Table 3-1: EIB Involuntary Resettlement Requirements

EIB's Involuntary Resettlement - Standard 6	
Involuntary Resettlement Principles	
<p>Avoid or, at least minimize project-induced resettlement whenever feasible through exploring alternative project designs, avoid and/or prevent forced evictions.</p> <p>Ensure that any eviction which may be exceptionally required is carried out lawfully, respects the rights to life, dignity, liberty and security of those affected who must have access to an effective remedy against arbitrary evictions.</p> <p>Respect right to property of all affected people and communities and mitigate any adverse impacts arising from their loss of assets, or access to assets and/or restrictions of land use, whether temporary or permanent, direct or indirect, partial or in their totality.</p> <p>Assist all displaced persons to improve, or at least restore, their former livelihoods and living standards and adequately compensate for incurred losses, regardless of the character of existing land tenure arrangements (including title holders and those without the title) or income-earning and subsistence strategies.</p> <p>Ensure that resettlement measures are designed and implemented through the informed and meaningful consultation and participation of the project-affected people throughout the resettlement process.</p> <p>In addition, the EIB is committed to upholding the Aarhus Convention, which emphasizes the citizens' rights to justice, to be consulted and to enjoy access to information on projects and plans and programs that will have environmental and social impacts on them, their assets and their lives.</p> <p>Forced evictions shall not take place. Evictions during land acquisition and expropriation must be carried out lawfully, only in exceptional circumstances and in full accordance with relevant national laws, international human rights and humanitarian law.</p> <p>Planning and managing involuntary resettlement properly as early as possible in the project life cycle, in consultation with all key stakeholders is of paramount importance.</p>	

EIB's Involuntary Resettlement - Standard 6

Project-Affected People

Project-affected people (PAPs) cover all persons impacted by the involuntary resettlement, including all members of a household (women, men, girls, boys, incl. several generations in the case of extended households); the owner and employees of a business; members of an ethnic minority group; tenants; land owners and sharecroppers; informal settlers (i.e. lacking formal titles); holders of customary land rights; informal business-operators and their employees/assistants.

Eligible PAPs may be in any of the following situations:

Have formal legal rights to the land/structure they occupy; do not have formal legal rights to land, but have a claim to land that is recognized or recognizable under the national laws (e.g. ancestral, traditional lands);

Are dependent on the impacted land for their livelihood by way of customary access to natural resources;

Have no recognizable legal right or claim to the land or structure they occupy; and/or

Economically displaced persons who face loss of assets or access to assets.

It is important to note that PAPs are not household units and different individuals will be differently impacted by the resettlement. Gender dynamics need to be duly observed and taken into account throughout the process.

Indigenous Peoples and other Vulnerable Groups

For Indigenous Peoples and other Vulnerable Groups, EIB's Standard 7, Rights and Interests of Vulnerable Groups is applied in synergy and cross-reference with EIB Standard 6.

Indigenous peoples are defined as a distinct social and cultural group, possessing the following characteristics:

Self-identification as indigenous;

A shared experience of oppression or colonization;

Collective entitlement and/or attachment to ancestral lands, territories and natural resources in their habitats and use thereof;

Distinct social, economic and political systems; and

Distinct languages, spiritual traditions, culture, beliefs and knowledge

Vulnerable groups may be excluded from political decision-making, and may therefore face a higher risk of impoverishment and social exclusion. Hence, the resilience levels of such groups to adverse impacts are lower. Such groups may include ethnic, religious, cultural, linguistic minorities, indigenous groups, female-headed households, children and youngsters, the elderly, persons with disabilities, and the poor. In conflict zones and post-conflict contexts, certain groups may suffer further (e.g. women and children lacking the capacity to claim heritage from missing parents) and new categories may appear such as refugees, returnees and internally displaced people in need of economic and social reintegration into society.

Evaluation of Impacts

The promoter is required to carry out a census and a socioeconomic baseline survey to establish the number of people to be displaced, livelihoods affected, and property to be compensated. The census date is usually also a cut-off date for eligibility claims. The cut-off date may also be the date of the project area delineation, prior to the census, but only following an effective and documented public information dissemination, and continuous dissemination to prevent further population influx.

The socioeconomic baseline survey is done through a sample survey and is critical in identifying the current socio-economic, cultural and political profile of the affected persons; their levels of overall resilience or vulnerability to establish degrees and sorts of impacts.

The census and the baseline survey are ideally done in parallel. Where this is not possible, the socioeconomic survey is done at the preliminary project design stage and the census by the time of the final detailed design.

A cut-off date determines the eligibility for compensation of project-affected persons. The cut-off date represents the actual date that the project-affected persons' assets and infrastructure at a particular site were recorded during the census survey.

Assets (land, structures and other assets) created, encroached or acquired by individuals or groups after the cut-off date, will not be eligible for compensation. Setting a cut-off date requires clear, public and accessible disclosure of the imminent project activities on the site concerned and their relevant implications for peoples' lives.

As the cut-off date is specified in a RAP, it is discussed, agreed and established with the EIB during the RAP

EIB's Involuntary Resettlement - Standard 6

preparation process.

Based on the socioeconomic/baseline survey results, any needs for expropriation, land acquisition and leasing and/or involuntary movement of people and likely restrictions on access to land, shelter and/or livelihood and subsistence strategies will be identified and communicated to EIB.

The promoter will provide the EIB with adequate documentation in relation thereto, namely an acceptable LARPF or LARAP. No work activities shall commence before the promoter has addressed the involuntary resettlement in a manner consistent with the principles and standards presented here and satisfactory to the EIB.

Compensation Principles

All affected persons will be paid fair compensation in good time for expropriated assets. Compensation should be provided for any loss of personal, real or other property, goods or assets, including rights or interests in property, for instance, land plots and house structures, contents, infrastructure, mortgage or other debt penalties. Where land has been taken, affected persons should be compensated with land of commensurate quality, size and value, or better.

The promoter is required to offer to the affected persons an informed choice of either compensation in kind (land-for-land; land plot and house to replace affected land plot and house) or monetary compensation at the beginning of the project. The promoter is expected to comply with the preferences expressed by the affected persons.

The value of any improvements to the land, business losses, equipment, inventory, livestock, trees, crops and lost wages or income must also be compensated, along with economically assessable damage, including: property or interests in property, goods, assets, use-rights or rights of access to natural resources, loss of life or limb; physical or mental harm; lost opportunities, including employment, education and social benefits; material damages and loss of earnings, including loss of earning potential; moral damage; costs required for legal or expert assistance, medicine and medical services, and psychological and social services; and costs of salvage and transport.

To enable affected persons to make productive use of cash compensation, it should be paid in its entirety and in a timely manner. In cases of loss of housing, replacement housing offers must satisfy criteria of adequate housing. Compensation for houses and other structures should be equivalent to replacement cost plus relocation costs. Depreciation of assets or the value of salvage materials shall not be deducted from the value of replacement cost.

Where the option of cash compensation or alternative accommodation is provided, the cost estimates for providing alternative accommodation could be used for calculating cash compensation payable. For movable structures, such as kiosks or stalls, comparable replacement sites should be offered. A good practice is to calculate replacement cost for such structures as the cost of alternative sites, the cost of replacing improvements (such as foundations), and relocation expenses or other transaction costs.

The promoter is required to pay by check or deposit the amount beforehand (as per valuation undertaken) to an individual or joint account for the affected person's access.

The promoter must ensure that compensation and income restoration measures are implemented without discrimination based on gender, race, ethnicity, religion, disability or other prohibited grounds. The promoter must ensure equal treatment of women during compensation and income restoration processes, especially with regard to women's rights and interests in land, property, assets, and compensation and relocation assistance, even where these are not recognized in formal law.

PAPs should be:

Provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project; Provided assistance (such as moving allowances) during relocation; Provided with residential housing, or housing sites, or, as required, agricultural or business sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site (in exceptional cases when this is not possible, adequate compensation must be provided);

Offered compensation for loss of income for a transition period as a form of support after resettlement, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living.

Compensation for loss of income is initially advised for the first three (3) months; only a singular repetition of this period is foreseen, not exceeding a total of six (6) months whereby loss of income may be compensated for;

Offered assistance for livelihood restoration or improvement through provision of training, credit, job placement,

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and/or other types of assistance; and, Offered an appropriate grievance mechanism that will allow prompt response to specific concerns related to compensation and resettlement by affected people and host communities.

Public Consultation, Participation and Disclosure

Resettlement is a process that involves project-affected people, host communities, the promoter, community-based organizations, non-governmental organizations and a multitude of governmental agencies, national and local. It is crucial that the promoter identifies and consults with all persons and communities involved in the resettlement process, including the host communities who will receive those who are resettled.

All relevant stakeholders must participate in the decision-making process to mitigate adverse project impacts and ensure that potential benefits of resettlement are sustainable. Consultation will continue in accordance with Standard 10 on Stakeholder Engagement and during the implementation and monitoring of the resettlement process.

Dialogue and consultation must cover women, vulnerable and marginalized groups, in accordance with Standard 7. It is therefore important to also hold separate consultations with women only, possibly broken down by different age groups.

Effective and meaningful engagement and consultation is a two-way process to be guided by the following general principles:

- Be initiated by the promoter early in the project during the identification of environmental and social risks and potential adverse impacts and continue throughout the project life cycle as risks and impacts arise;

- Be inclusive of the affected communities, and accessible to any vulnerable groups within, and differentiated by various segments;

- Be inclusive, beyond the affected parties, of any groups or individuals who have been identified as other interested parties; and,

- Be adequately documented both in substance and process.

Factors such as literacy, unequal gender relations and access to sources of project information need to be carefully considered by the promoter when pursuing an effective disclosure and information dissemination campaign.

Grievance Mechanism

The promoter shall set up and maintain a grievance mechanism that is independent, free and will prompt address specific concerns about compensation and relocation from the affected people and host communities and other directly involved entities. The mechanism should be easily accessible, culturally appropriate, widely publicized, and well integrated in the promoter's project management system. It should enable the promoter to receive and resolve specific grievances related to compensation and relocation by affected persons or members of host communities, and use the grievance log to monitor cases and improve the resettlement process.

Monitoring and Evaluation

The promoter's obligations to implement a LARAP and to report to the EIB on its implementation are to be defined in the project's legal agreements. The promoter shall set up necessary systems (i.e. resources, staff, and procedures) to monitor the implementation of a LARAP on a regular basis and take corrective action as necessary. Affected persons will be consulted as part of the monitoring activities. The implementation and effectiveness of the resettlement action plan shall be subject to monitoring and review by qualified resettlement specialists and/or other independent third parties as appropriate and commensurate to the scale and risks involved in the resettlement.

Implementation of a LARAP will be considered completed when the adverse impacts of resettlement have been addressed in a manner that is consistent with the relevant plan and requirements outlined in Standard 6. The promoter should present EIB with a report upon the completion of the LARAP implementation, prepared by an external party. The resettlement audit will include, at a minimum, a review of the mitigation measures implemented by the promoter, a comparison of implementation outcomes against agreed objectives, and a conclusion as to whether any follow-up actions and further monitoring are needed.

Source: Based to a large extent on the "Red Sea Dead Sea ESIA Phase 1", co-funded by EIB, December 2017

The following table presents the gaps that exist between the local national requirements in Jordan and those of EIB particularly as they relate to Resettlement and Land Acquisition and Public Consultations and Disclosure.

Table 3.2- Gaps in Legislation and Measures to Bridge Them

Issue	Gaps between Local and EIB Requirements	Measures to Bridge Gaps
Resettlement and Land Acquisition	<ul style="list-style-type: none"> ▪ The Jordanian Real Estate Ownership Law (REOL) No. 13 of 2019 does not recognize displaced people (physically or economically) without formal legal rights. Furthermore, it does not recognize the term 'involuntary resettlement'. ▪ The focus in Jordanian legislation is confined to land and assets such as buildings, trees and other fixed objects which may be expropriated or damaged by the project. ▪ Resettlement assistance is not covered except for the provision of cash compensation for the loss of land or assets for persons with formal legal rights. ▪ Loss of value and economic resettlement are not covered by the local legislation. ▪ The Jordanian legislation does not require the preparation of Land Acquisition and Resettlement Action Plans (LARAPs), nor to undertake a socio-economic survey prior to commencing project activities. Furthermore, it does not require performing consultation with project affected people or conducting monitoring or reporting. ▪ The Jordanian legislation offers the owner the right to negotiate to reach agreement over the compensation and to refer the case to the courts but only as it relates to the amount of the compensation. ▪ Project affected persons and host communities have very limited opportunity under the law to participate in defining or agreeing eligibility criteria. 	<ul style="list-style-type: none"> ▪ Develop a LARAP for the AAWDC in line with EIB standards Project prior to project commencement. ▪ Undertake a full socio-economic survey prior to commencing project activities. ▪ Maintain open communication channels and on-going consultations with project affected people throughout the project lifecycle. ▪ Conduct regular monitoring and reporting. ▪ Implement a grievance mechanism. ▪ Pay special attention to disputed tribal lands.
Public Consultations and Disclosure	<ul style="list-style-type: none"> ▪ Jordan's local legislation is not very elaborate on public consultation and disclosure requirements while EIB recognizes the importance of an open and transparent engagement between the client, its workers, and local communities directly affected by the project. ▪ EIB requires that stakeholder engagement should be initiated at an early stage of the project cycle to outline a systematic approach to stakeholder engagement that will help clients build and maintain a constructive relationship with their stakeholders, in particular the directly affected communities; to promote improved environmental and social performance through effective engagement with the project's stakeholders; and to provide means for adequate engagement with affected communities throughout the project cycle on issues that could potentially affect them and to ensure that meaningful environmental and social information is disclosed to the project's 	<ul style="list-style-type: none"> ▪ Stakeholder engagement, including disclosure and dissemination of information, should be planned for and carried out in line with the principles of prior, informed and free engagement and informed participation, in order to lead to broad community support by the affected communities and longer-term sustainability of the project's activities. ▪ Stakeholders' inputs must be documented and carefully considered throughout the project preparation and implementation phases. ▪ Applying EIB requirements will ensure that a grievance mechanism is established and

Issue	Gaps between Local and EIB Requirements	Measures to Bridge Gaps
	stakeholders.	<p>grievances from affected communities and other stakeholders are addressed and managed appropriately.</p> <ul style="list-style-type: none"> ▪ MWI must adopt a stakeholder engagement process that provides stakeholders with access to timely, relevant and understandable information, and to engage relevant internal and external stakeholders throughout the project to ensure effective communication. ▪ MWI must ensure that the level of engagement corresponds to the type and scale of the potential impacts and will take the concerns of stakeholders into consideration in decision-making.

4. Key Principles for Land Acquisition and Resettlement

During implementation of the AAWDC project, MWI, as the Project Promoter, is expected to adhere to the following basic principles on land acquisition leading to resettlement and/or economic displacement:

1. Land acquisition and any associated resettlement will be minimized by project design and implementation, to the extent possible. Where land acquisition is unavoidable, the project design will be revisited (where possible) to minimize adverse impacts on residents in the project area.
2. PAPs will be compensated, relocated and their livelihood restored, in order to improve their standard of living and income earning capacity, or at least to restore them to pre-project levels.
3. All people residing in, or using land, or having rights over resources within the project area (on the date of the census survey) will be entitled to compensation for their losses which will be documented through a census and asset inventory to be undertaken as part of the LARAP.
4. Moving allowance and (if needed) assistance with relocation will be provided to vulnerable individuals. The lack of legal rights or title with regard to an asset(s) affected by the project (be it land, crops/trees or structures) will not preclude PAPs from receiving compensation and relocation assistance as per the objectives of the EIB Standard 6 and WB OP 4.12. It should be noted that persons who do not hold recognized or recognizable rights will not be entitled to receive compensation for land acquisition. However, this does not preclude them from receiving other kinds of assistance.
5. Compensation strategy for land, structures, crops/ trees affected or damaged by the project, involves compensation at full replacement cost.
6. PAPs who are subject to physical displacement (and therefore will have to relocate and therefore who lose their shelter), will receive a Moving Allowance, in addition to compensation fairly due to them for their affected assets, such as land, structures, crop/trees. Those PAPs who are subject to economic displacement (where they do not need to move but their livelihood is affected) will be compensated for affected assets. As noted above, persons with no recognized or recognizable rights will not be entitled to receive compensation for land acquisition but this does not preclude them from receiving other kinds of assistance.
7. The LARAP will be prepared by MWI before commencement of project activities and following consultations with the project affected people who shall endorse the Plan through documented public consultations and discussions. Financial and physical resources for resettlement and rehabilitation will be made available by MWI as and when necessary.
8. Planning and implementation of resettlement and livelihood restoration measures will be aligned with the project schedule which might need to be periodically revisited to accommodate changes and ensure smooth implementation of the resettlement and land acquisition process.
9. Adequate arrangements will be put in place by MWI for the effective and timely internal and external monitoring to ensure proper implementation of all resettlement and livelihood restoration measures.

5. Eligibility and Entitlements

Based on EIB Standard 6, the following guidelines are used concerning PAP's eligibility and entitlement:

Any person negatively affected by the project is eligible for compensation, livelihood restoration and/or other resettlement assistance.

People with formal land title, land use rights, customary or traditional rights to the land as well as those who occupy/use the land but have no formal title for objective reasons are eligible for compensation for land.

People who occupy the land but have no formal or informal claim to it, such as squatters, shall be provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives of the resettlement standards laid out in this Standard, if they occupy the project area prior to a cut-off date established by the promoter and acceptable to the EIB. Such affected persons shall not be compensated for land but for their land improvements or structures, such as houses and/or small businesses, and may qualify for other resettlement and rehabilitation assistance.

Resettlement assistance can consist of land, cash, jobs, or other forms of assistance determined in consultation with affected people and acceptable to the promoter.

Seasonal resource users may not be present in the project area during the time of the census and thus appropriate consultation techniques should be used to identify those PAPs.

Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance.

Compensation Entitlements

Private Land

- Where the owner and the user is the same individual, this person will receive the full elements of compensation; and
- Where land is cultivated by a land user who is not a landowner, the compensation will be shared between the landowner and the land user in the following way:

Permanently acquired land

- Compensation for land to the landowner; and
- Compensation for crops/trees to the land user.

Temporarily occupied land

- Compensation for lease or easement to the landowner; and
- Compensation for crops/trees to the land user.

Compensation for any structures will be paid to an owner of such structure who could either be the land owner or land user depending on who owns the structure in question.

Treasury, Government and other Public Land

Where Treasury, Government, or other publicly owned land is used by an individual (regardless whether it is legally or illegally), this land user is entitled to the following compensation:

- Compensation for permanently acquired land includes compensation for crops; and compensation for any structures to which a land user can confirm ownership (by official documentation or through credible witnesses/ community elders).
- Compensation for temporarily occupied land includes compensation for crops only.

6. Land Acquisition and Resettlement Action Plan (LARAP)

MWI, as the Project Promoter, must ensure that prior to commencing project construction activities, a full LARAP is developed based on this LARPF. The LARAP would include the following:

- a. A survey to identify the socio-economic characteristics of the affected persons, including a census;
- b. A comprehensive plan for the acquisition of land and/or resettlement;
- c. A compensation package in accordance with the compensation guidelines set out in this LARPF which should also be acceptable to the affected persons;
- d. A consultation process to ensure that affected people are aware of their rights and responsibilities in connection with the planning and execution of the resettlement action plan; and
- e. A grievance redress procedure to resolve disputes possibly emerging from the implementation of land acquisition and/or resettlement action plan.

The LARAP aims to identify, assess and evaluate potential involuntary resettlement impacts on the PAPs by the project, and to propose efficient resettlement mitigation, management and monitoring measures. The LARAP needs to cover the different types and modes of involuntary resettlement including (1) relocation or loss of shelter, (2) loss of assets or access to assets, and (3) loss of income sources or means of livelihood, regardless whether the PAPs must move to another location or not. The LARAP should also indicate the budget amount and source of funds for the required compensation.

Following are the proposed contents of the LARAP:

- Executive summary
- Scope and approach of the resettlement action plan
- Project description
- Project potential resettlement impacts
- LARAP objectives
- Socio-economic characteristics
- Legal and institutional framework for land acquisition and involuntary resettlement by the project
- Eligibility
- List and category of persons affected by resettlement and land acquisition
- Valuation of and compensation
- Resettlement measures
- Grievance mechanism
- Organizational responsibility
- Cost and budget
- Payment mechanism
- Monitoring and evaluation
- Schedule of implementation

A meeting was held with MWI on December 22, 2021 to discuss the preparation of the Land Acquisition and Resettlement Plan for the AAWDC Project. Based on the meeting, MWI confirmed the following principles which will be followed throughout the preparation and implementation of the Resettlement Action Plan(s):

- It will be MWI's responsibility to prepare and implement the LARAP. This will be done in close collaboration with the following official entities: Ministry of Finance, Department of Lands and Survey, Ministry of Agriculture and the Prime Ministry.

- MWI would require up to 6 months for preparing and implementing the LARAP from the time that project design is finalized. The LARAP will consequently be updated in the event that there are design changes.
- Implementation of the LARAP including payment of compensation will be funded by the Treasury of the Hashemite Kingdom of Jordan. At this stage, MWI does not have yet allocated budget or estimates of the cost of land acquisition and resettlement for the project.
- MWI does not see any gaps in the Real Estate Ownership Law No. 13 of 2019 which could negatively affect preparing and implementing the LARAP for the AAWDC Project.
- MWI ensures that no field activities by the BOT Contractor will take place except after affected private plots have been properly acquired and compensation payment made. Activities on Treasury and government lands can be acquired immediately without the need to wait until the acquisition process is complete.
- Under the Jordanian law, it is possible to make direct purchase of land where there is only one owner and the acquired area is significant compared to the overall area of the plot.
- Payment for land acquisition is made through the Department of Lands and Survey while direct damages are compensated through direct payment by WAJ.
- MWI will follow the community grievance procedure outlined in the Stakeholder Engagement Plan for the AAWDC Project.
- The rights of farmers cultivating affected land will be acknowledged even if they do not have legal /recognizable land titles provided there is evidence that they were benefitting from affected land.
- There will be no free acquisition of up to 25% of the area of land.
- Some of the indicators which MWI will use to measure performance with the implementation of the LARAP include whether land owners were properly and timely informed of the need to acquire their land, number of complaints filed by PAPs, and the time taken to resolve grievances and complaints.

7. Resettlement Triggers and Potential Impacts

The right to acquire land for public benefit is well-established by legislation in Jordan. Involuntary resettlement safeguards are triggered when there is physical displacement (relocation, loss of residential land, or loss of shelter) and/or economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Right-of-Way (ROW) and Land Acquisition are triggered by the AAWDC Project. These can be defined as follows:

- **Right of Way (ROW):** the right to cross property to go to and from another parcel. The right of way may be an "easement," which is a right to pass across another's land.
- **Land Acquisition (LA):** means acquiring land for public purpose by government/government agency, as authorized by the law, from the individual landowner(s) after allocating/advancing fixed compensation in lieu of losses incurred by landowner(s) due to surrendering of his/her land – fully or partially - to the concerned government agency.

Project activities expected to trigger resettlement impacts (resettlement stressors) include the following:

1. Acquisition of a land plot, property or asset, fully or partially, for the project purpose (i.e. public benefit);
2. Loss of access to business due to construction activities within the pipeline corridor or near roads close to these businesses causing a loss of income (from a decline in the number of customers or interference with the movement of goods and materials);
3. Disruption of normal business activities due to noise and dust;
4. Loss of income due to temporary or permanent impacts on agricultural activities in affected plots;
5. Granting the water conveyance pipeline system the Right of Way (ROW) through publically or privately owned lands or properties; and
6. Temporary infringement on land or property during the implementation of the construction activities.

Anticipated Negative Impacts

Based on the EIB Standards and World Bank's OP 4.12, Involuntary Resettlement is triggered when PAPs experience impacts on their assets, and livelihoods. Anticipated negative impacts caused by the project will include:

1. Relocation or loss of shelter;
2. Loss of land (for land owners) and access to land (for land users) resulting from land acquisition, lease and easement;
3. Loss of assets including the partial loss of land to acquisition and/or the ROW area within the affected property/asset;
4. Physical displacement of Project-Affected People;
5. Loss of access to assets; or
6. Loss of income sources or means of livelihood, whether or not the PAPs must move to another location. This also includes reduced market value of the affected property.

Anticipated Positive Impacts

The project will bring an improvement in the availability of water supply for the entire country. This will also reflect positively on the sanitary hygienic conditions in the project area and beyond which will have substantial positive socio-economic impacts on the local communities. The positive impacts that will be generated by the project include:

1. Improved water availability for Jordanian citizens;
2. Improved sanitary and hygienic conditions for the local communities; and
3. Reduced depletion of existing groundwater aquifers in Jordan.

8. Identified Cases of Land Acquisition

The AAWDC Project resettlement impacts have been defined as follows:

- **Right of Way (ROW):** The right to cross property to go to and from another parcel. The right of way may be an "easement", which is a right to pass across another's land.
- **Land Acquisition (LA):** Acquiring land for the project (public benefit), as authorized by the law, from the individual landowner(s) after allocating/advancing compensation in lieu of losses incurred by land owner(s).
- **Land Allocation:** Transfer of ownership from one governmental department (or Jordan's Treasury) to another, in this case MWI as Project Promoter.

Consultations with stakeholders and PAPs revealed that, generally, owners of vacant land plots are not so much concerned about the potential acquisition of entire plots as they are about acquisition resulting in parcelling or fragmenting their land which often times renders the remainder of the plot unusable or unfit for the designated land use (residential, commercial). Most of the PAPs interviewed expressed their opinion that the GoJ pays fair and equitable compensation for acquired land.

The project is expected to affect approximately 128 plots of land with one plot jointly owned by a private owner and WAJ. These will be subject either to land acquisition, land allocation from ASEZA, Right-of-Way, or other forms of ownership transfer. Following are the ownership status of the affected plots.

Table 8-1: Affected Plots and Ownership Status

Affected Plot Owner	Number of Plots Affected
ASEZA	3
Private owners	44*
Government of Jordan	30
Government Road	43
Aqaba Development Corporation (ADC)	3
ARCJO	1
Hijaz Rail	2
WAJ	3*
Total	129

*one plot is jointly owned by WAJ and a private owner

Figure 6-1 below shows part of the plots that will be affected by the construction of the project.

Plots of land and other property that will potentially be affected by the construction of all the AAWDC Project have been identified and are presented in Table 6-2. These cases should be confirmed by the LARAP once the BOT Contractor has been selected by the Project Promoter (MWI) and the project design is finalized. A detailed survey of the affected plots conducted as part of the LARAP will document the exact areas to be expropriated along with all assets which will potentially be affected by the project.

As shown in Table 6-2, the Project will affect both government and private land through acquisition. Furthermore, any residential or commercial structures existing on those plots may also be affected. Since the AAWDC Project promoter is the Government of Jordan, acquiring government land will follow the procedures established for transfer of ownership between governmental departments in Jordan. Acquiring private land, however, will involve the lengthier and more detailed process compared to government land or land owned by Jordan's Treasury.



Figure 8-1: Part of the Land Acquisition Cases Affected by AAWDCP

Table 8-2: Plots of Land Affected by the AAWDC Project

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
1	10+300	10+300	BPS2	292	العقبة	4,402,369.7			34,700.0	Need Land Allocation from ASEZA	ASEZA Land
2	16+100	16+100	BPS3	2997	العقبة	743,382.6			30,400		ASEZA Land
3	19+700	20+050	PIPELINE	2980	العقبة	139,454.0	350	15	5,250		ADC Land (شركة تطوير العقبة)
4	20+400	20+950	PIPELINE / RGT 1	7	جبل أم حماط	462,428.7			38,340		Government Land
5	20+950	21+300	PIPELINE	11	العقبة	218,991.1	350	15	5,250		ADC Land (شركة تطوير العقبة)
6	21+300	21+450	PIPELINE	18	العقبة	854,251.2	150	15	2,250		ADC Land (شركة تطوير العقبة)
7	33+500	34+100	PIPELINE	27	العقبة	7,058,547.2	600	15	9,000	To Avoid Aqaba Free Zone / Need Land Allocation from ASEZA	ASEZA Land
8	43+900	44+400	PIPELINE	704	الراشديه	13,008.6	80	15	1,200	ROW/Government Road as per MoPWH letter # 12892	Government Road
9				706	الراشديه	10,056.3	73	15	1,095		Government Road
10				705	الراشديه	13,031.6	117	15	1,748		Government Road
11				702	الراشديه	15,102.8	93	15	1,388		Government Road
12				701	الراشديه	56,297.1	164	15	2,453		Government Road
13	48+611	48+638	PIPELINE	712	الراشديه	2,618.2	27	15	405	Require Land Acquisition	Private Land
14	50+200	50+200	BPS4	725	الراشديه	22,687.3			22,687	Require Land Acquisition	Private Land
15				712	الراشديه	11,544.8			11,545		شركة العقبة للسكك الحديدية/ arcjo
16				711	الراشديه	12,880.7			12,881		Private Land
17				707	الراشديه	13,179.3			13,179		Private Land
18	50+400	50+950	PIPELINE	55	القويرة	83,458.1	131	15	1,958	Existing Dirt Road / Require Land Acquisition	Private Land
19				194	القويرة	43,222.6	75	15	1,125		Private Land
20				195	القويرة	43,072.9	65	15	975		Private Land
21				196	القويرة	26,813.0	62	15	930		Private Land

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
22				424	القوية	117,281.1	227	15	3,405		Private Land
	76+100	76+320	PIPELINE	23	وادي ابو عامود		220	15	3,300	Require Land Acquisition	Government Land
	80+900	98+550	PIPELINE	29	وادي ابو عامود		3,600	15	54,000	RUM FARM	Government Land
				23	وادي ابو عامود	1,021,294.0	1,000	15	15,000		Government Land
23				3	منيشير	2,902,249.0	2,320	15	34,800		Government Land
24				5	منيشير		10,570	15	158,550		Government Land
25			RGT 2	1	منيشير				21,800	Require Land Acquisition	Government Land
26	122+100	129+050	PIPELINE	4	سهل عمير وعمار		6,950	15	104,250	Require Land Acquisition	Government Land
	129+050	131+450	PIPELINE	4	سهل عمير وعمار		2,400	15	36,000	Parallel to Disi line	Government Land
27	131+450	139+500	PIPELINE /BPS 5(MUS 2)	14	جبل البتراء الشرقي				161,060	Parallel to Disi line	Government Land
28			PIPELINE	9	جبل البتراء الشرقي	65,731.8	190	15	2,850		Government Land / MWI
29			PIPELINE	7	جبل البتراء الشرقي	701,636.3	300	15	4,500		Hijaz Rail Road Land
30	143+000	278+600	PIPELINE	12	جبل البتراء الشرقي		8,750	15	131,250	Parallel to Disi line	Government Land
31			PIPELINE / RGT 3	8	محطة بطن الغول				203,200		Government Land
32			PIPELINE	7	محطة بطن الغول	125,626.5	475	15	7,125		Government Land
33			PIPELINE	9	وادي ابو عامود الغربي		6,600	15	99,000		Government Land
34			PIPELINE	2	وادي ابو عامود الغربي		4,130	15	61,950		Government Land

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
35			PIPELINE	2	مثلث الشيدية		4,020	15	60,300		Government Land
36			PIPELINE	1	طريق الشيدية القديم		8,880	15	133,200		Government Land
37			PIPELINE	1	طريق الحاج		12,020	15	180,300		Government Land
38			PIPELINE	1	وادي ابوطرفة		6,350	15	95,250		Government Land
39			PIPELINE	2	ثورين		2,900	15	43,500		Government Land
40			PIPELINE	1	ثورين		6,550	15	98,250		Government Land
41			PIPELINE	1	وادي الرتبة		9,930	15	148,950		Government Land
42			PIPELINE	5	وادي ابوصفاة		3,000	15	45,000		Government Land
43			PIPELINE	1	الطريق الاسمنتي		11,570	15	173,550		Government Land
44			PIPELINE / BPT	4	وادي العيرية				209,300		Government Land
45			PIPELINE	1	القرطاسيات		9,970	15	149,550		Government Land
46			PIPELINE	1	وادي البهيه		5,230	15	78,450		Government Land
47			PIPELINE	8	وادي ابو العوافي		9,600	15	144,000		Government Land
48			PIPELINE	727	جرف الدراويش	93,670.2	58	15	870		Hijaz Railway
49			PIPELINE	713	جرف الدراويش	27,313.0	19	15	282		Private Land
50			PIPELINE	712	جرف الدراويش	27,761.4	62	15	930		Private Land
51			PIPELINE	782	جرف الدراويش	449.2	60	15	900		WAJ
52			PIPELINE	785	جرف الدراويش	1,233.6	74	15	1,103		WAJ
53			PIPELINE	787	جرف الدراويش	1,033.4	86	15	1,290		Private and WAJ Land
54			PIPELINE	708	جرف الدراويش	62,745.2	151	15	2,265		Private Land

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
55			PIPELINE	707	جرف الدراويش	40,141.3	81	15	1,215		Private Land
56			PIPELINE	776	جرف الدراويش	898.7	75	15	1,125		Private Land
57			PIPELINE	773	جرف الدراويش	11,390.0	61	15	915		Private Land
58			PIPELINE	768	جرف الدراويش	48,857.3	40	15	600		Private Land
59	292+000	292+600	PIPELINE	3	قاع الفحيلي	4,202,124.9	600	15	9,000	Parallel to Disi line	Government Land
60	384+110	384+500	PIPELINE	1	ضبيعه	1,597,812.9	390	15	5,850	Require Land Acquisition	Private Land
	384+700	385+120	PIPELINE	1	ضبيعه	1,597,812.9	420	15	6,300	Require Land Acquisition	Private Land
61	386+000	386+070	PIPELINE	76	ارنبه الشرقية	4,930.5	70	15	1,050	Require Land Acquisition	Private Land
62	386+300	386+500	PIPELINE	4	ارنبه الشرقية	154,328.8	70	15	1,050	Require Land Acquisition	Private Land
	386+900	387+400	PIPELINE	4	ارنبه الشرقية	154,328.8	500	15	7,500	Require Land Acquisition	Private Land
63	387+550	387+800	PIPELINE	1	ارنبه الشرقية	323,079.4	250	15	3,750	Require Land Acquisition	Private Land
64	387+800	387+900	PIPELINE	72	ارنبه الشرقية	51,117.6	100	15	1,500	Require Land Acquisition	Private Land
65	387+900	387+950	PIPELINE	115	ارنبه الشرقية	56,832.0	50	15	750	Require Land Acquisition	Hejaz Railway
66	388+350	388+750	PIPELINE	115	السيفية	4,526.2	82	15	1,226	Existing Road / Require Land Acquisition	Private Land
67				110	السيفية	3,883.1	55	15	825		Private Land
68				106	السيفية	3,908.7	54	15	816		Private Land
69				103	السيفية	3,934.3	56	15	840		Private Land
70				101	السيفية	3,992.6	56	15	840		Private Land
71				100	السيفية	3,664.9	64	15	960		Private Land

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
72	390+250	390+350	PIPELINE	5	السيفية	1,003,539.9	100	15	1,500	Government Road as per Ministry of Municipal Affairs	Government Road
73	390+800	391+100	PIPELINE	240	السيفية	10,185.2	83	15	1,245	Existing Road / Required Land Acquisition	Private Land
74				241	السيفية	10,205.4	61	15	915		Private Land
75				194	السيفية	9,749.5	124	15	1,860		Private Land
76				193	السيفية	10,601.5	55	15	825		Private Land
77	391+450	391+900	PIPELINE	45	القنيطرة	10,059.5	30	15	450	Government Road as per Ministry of Municipal Affairs	Government Road
78				44	القنيطرة	10,224.8	116	15	1,740		Government Road
79				43	القنيطرة	10,181.6	53	15	795		Government Road
80				40	القنيطرة	10,061.8	40	15	600		Government Road
81				114	القنيطرة	10,319.6	22	15	330		Government Road
82				115	القنيطرة	13,239.1	139	15	2,085		Government Road
83	392+650	392+850	PIPELINE	105	القنيطرة	3,781.9	55	15	825	Government Road as per Ministry of Municipal Affairs	Government Road
84				104	القنيطرة	3,987.9	59	15	885		Government Road
85				103	القنيطرة	4,274.7	60	15	900		Government Road
86				102	القنيطرة	4,161.0	55	15	825		Government Road
87	393+550	394+600	PIPELINE	3	القنيطرة	154,805.8	795	15	11,925	Government Road as per Ministry of Municipal Affairs	Government Road
88				368	القنيطرة	10,468.0	197	15	2,955		Government Road
89				367	القنيطرة	10,734.1	63	15	945		Government Road
90	403+100	403+350	PIPELINE	22	القنيطرة	11,888.9	95	15	1,425	Government Road as per Ministry of Municipal Affairs	Government Road
91				23	القنيطرة	12,499.2	91	15	1,365		Government Road
92	403+700	404+350	PIPELINE	28	القنيطرة	20,342.2	212	15	3,180	Government Road as per Ministry of Municipal Affairs	Government Road
93				67	القنيطرة	12,171.7	43	15	642		Government Road
94				1115	الكتيفة	20,012.6	105	15	1,575		Government Road

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
95				181	الكتيفه	15,750.6	213	15	3,195		Government Road
96	404+770	404+930	PIPELINE	1465	الكتيفه	157,803.9	160	15	2,400	Government Road as per Ministry of Municipal Affairs	Government Road
97	406+300	406+420	PIPELINE	153	الكتيفه	89,119.6	120	15	1,800	Government Road as per Ministry of Municipal Affairs	Government Road
98	408+500	408+900	PIPELINE	66	ذهبيه الشرقية	55,069.1	154	15	2,310	Government Road as per Ministry of Municipal Affairs	Government Road
99				84	ذهبيه الشرقية	11,282.6	18	15	270		Government Road
100				83	ذهبيه الشرقية	11,192.7	62	15	930		Government Road
101				82	ذهبيه الشرقية	21,875.4	127	15	1,905		Government Road
102	409+400	409+950	PIPELINE	70	ذهبيه الشرقية	217,488.6	132	15	1,980	Government Road as per Ministry of Municipal Affairs	Government Road
103				62	ذهبيه الشرقية	280,865.4	438	15	6,570		Government Road
104	410+400	410+700	PIPELINE	39	ذهبيه الشرقية	296,698.8	300	15	4,500	Government Road as per Ministry of Municipal Affairs	Government Road
	Realignment US of PS ADC (from Station 411+000 to PS ADC)	PIPELINE		2139	ذهبيه الشرقية	1,250,874.9	658	15	9,870	Existing Dirt Road / Require Land Acquisition	Private Land
				41	ذهبيه الشرقية	1,086.5	30	15	450	Require Land Acquisition	Private Land
				26	ذهبيه الشرقية	980.8	24	15	360	Require Land Acquisition	Private Land
				793	ذهبيه الغربية	13,591.3	58	15	870	Require Land Acquisition	Private Land
				1285	ذهبيه الغربية	12,657.5	64	15	960	Require Land Acquisition	Private Land
				1286	ذهبيه الغربية	12,646.4	63	15	945	Require Land Acquisition	Private Land
				703	ذهبيه الغربية	11,959.9	32	15	480	Require Land	Private Land

Item	From	To	Description	Plot No.	VILLAGE	TOTAL AREA (m ²)	Required Length (m)	Required Width (m)	Required Area (m ²)	Comments	Land Owner
										Acquisition	
				694	ذهيبه الغربية	10,216.6	142	15	2,130	Require Land Acquisition	Private Land
109	414+400	414+400	PS ADC	1077	ذهيبه الغربية	50,001.3			50,001	Require Land Acquisition	Private Land
110				1078	ذهيبه الغربية	77,771.5			13,500		Private Land
111				1047	ذهيبه الغربية	10,002.4	47	15	705		Government Road
112				1048	ذهيبه الغربية	9,737.2	123	15	1,845		Government Road
113	0+900	1+350	PIPELINE	1052	ذهيبه الغربية	9,558.5	13	15	195	R.O.W / Government Road as per MoPWH letter#12892	Government Road
114				1053	ذهيبه الغربية	10,277.9	105	15	1,575		Government Road
115				332	اللين	650.1	28	15	420		Government Road
116	2+450	2+550	PIPELINE	353	اللين	650.3	26	15	390	R.O.W / Government Road as per MoPWH letter#12892	Government Road
117				91	اللين	9,421.1	57	15	855		Government Road
118	3+200	3+400	PIPELINE	92	اللين		142	15	2,130	R.O.W / Government Road as per MoPWH letter#12892	Government Road
120				94	اللين	10,051.2	72	15	1,080		Government Road