

The HASHEMITE KINGDOM OF JORDAN

Ministry of Water and Irrigation
Water Authority of Jordan



**Feasibility Study, Environmental
and Social Impact Assessment and
Detailed Designs and Bidding
Documents for Zarqa Governorate
Wastewater System Reinforcement
and Expansion Project**



**Resettlement Action Plan (RAP)
Final Report**

Annex 4 to the DESIA Final Report



MWH

BUILDING A BETTER WORLD

March 2012

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ABBREVIATIONS

Design Team	The design consulting company which was responsible for the preparation of the designs for the MCA Wastewater Reinforcement and Expansion Project in Zarqa
DLS	Department of Land and Survey
DoS	Department of Statistics
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
LA	Land Acquisition
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MWI	Ministry of Water and Irrigation
PAP	Project Affected People/Persons
RAP	Resettlement Action Plan
RAP Consultant	The Involuntary Resettlement study and plan preparation consultant for the MCA Wastewater Reinforcement and Expansion Project in Zarqa
ROW	Right Of Way
ToR	Terms of Reference
WAJ	Water Authority of Jordan

1 EXECUTIVE SUMMARY

1.1 Introduction

MWH was retained by the Ministry of Water and Irrigation / Water Authority of Jordan (MWI/WAJ) on November 19th, 2009 to perform consulting services for the preparation of the feasibility study, environmental and social impact assessment and detailed designs and bidding documents for Zarqa Governorate wastewater system reinforcement and expansion. This report presents the Resettlement Action Plan (RAP) report as Annex 3 to the Environmental and Social Impact Assessment (ESIA) for the mentioned project. The proposed project has recently reached the final design stage by MWH for the benefit of the Water Authority of Jordan with funding from the Millennium Challenge Corporation (MCC). Review of the Project designs showed that acquisition of land and obtaining wastewater system Right of Way to pass through a number of governmentally or privately owned properties / land plots is unavoidable to achieve the Project stated goals for the best interest of the public.

This RAP has been prepared in compliance with the applicable national legislations in Jordan and with the triggered World Bank social safeguard policies, in particular the Operational Policy 4.12 on Involuntary Resettlement. It constitutes 15 chapters other than the executive summary and the introduction chapters. The other chapters are:

- Scope and approach of the resettlement action plan
- Project description
- Project potential resettlement impacts
- Rap objectives
- Socio-economic characteristics
- Legal framework for involuntary resettlement by the project
- Institutional framework
- Eligibility
- Valuation of and compensation for losses
- Resettlement measures
- Grievance Mechanism
- Organizational responsibility
- Cost and budget
- Monitoring and evaluation
- Schedule of implementation

1.2 About the Proposed Project

This project aims at achieving the following for Zarqa Governorate:

- Decrease or eliminate sewage overflows and the resulting health risks and costs; and
- Extend the piped sewerage system to that part of the population who are presently served only by water and not by sewer.

The project covers selected areas in Zarqa Governorate which extends from Zarqa River in the west to the Saudi border in the east. The major communities within the study area include Zarqa, Russiefah, Hashimyah, and Es-Sukhneh. **It should be noted that this RAP concerns the MCC-funded portion of this Project and as such covers only the East Zarqa which includes Hashimyah, and West Zarqa which include Russiefah. Es-Sukhneh Zone is not covered by this plan.**

The proposed wastewater management system for the governorate of Zarqa involves keeping the conveyance of all flows generated within the project area to As Samra WwTP. This system involves the upgrading of the main elements of the existing Zarqa wastewater conveyance system to serve the projected population of Zarqa until the year 2035.

The key features of MCC-Funded Project are:

- Construction of about 209 km of secondary sewers to extend wastewater collection services to new areas;
- Construction of 18.5 km of secondary sewers in areas to fill wastewater collection services gaps;
- Construction of 18 km of trunk lines in diameters ranging from 300 to 900 mm to connect the above collection networks to the existing systems;
- Reinforcement of the existing collection networks in Zarqa, Russiefah and al-Hashimyah by construction of 17.3 km of new and replacement sewers ranging in diameter from 200 to 1400 mm.
- Rehabilitation of the existing collection networks in Zarqa, Russiefah and al-Hashimyah by replacement of 15.4 km of 200 to 300 mm diameter sewers.
- Cleaning of 50 km of sewers in West Zarqa system and 20 km in East Zarqa system using bucket machines with the remainder of the WAJ/Zarqa estimated 200 km requiring cleaning to be carried out in Phase II.

1.3 Scope and Approach of the Resettlement Action Plan

The overall objective of this study is to carry out an assessment of involuntary resettlement impacts by the project on the Project Affected People (PAPs), and to prepare an effective implementation-ready Resettlement Action Plan (RAP) as part of the social impact assessment and in compliance with MCC related policies, guidelines and procedures, and with the World Bank social safeguard policy on Involuntary Resettlement (Operational Policy number 4.12).

The RAP aims to identify, assess and evaluate potential involuntary resettlement of PAPs by the proposed project, and to suggest efficient resettlement mitigation, management and monitoring measures. The assessment needs to cover the different types and modalities of involuntary resettlement including (1) relocation or loss of shelter, (2) loss of assets or access to assets, or (3) loss of income sources or means of livelihood, whether or not the PAPs must move to another location.

The service geographic scope constitutes three areas within Zarqa Governorate, namely East Zarqa, West Zarqa and Es-Sukhneh. It covers a total of 33 neighborhoods (locally known as Hai) belonging to three municipalities (Al-Zarqa Municipality, Russiefah Municipality and Al-Hashimyah Municipality) in addition to the in-between connections that fill the network gaps between the neighborhoods.

It worth mentioning that each identified involuntary resettlement case have been assigned serial number (code) which have been maintained in all project chapters and tables thus to ease the track of changes, assessment of impacts and designing case-specific measures whenever needed.

1.4 Project Potential Resettlement Impacts

Generally, and as provided in the project ROW Report, ROW and Land Acquisition 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 some 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 land owner(s) due to surrendering of his/her land to the concerned government agency.

The resettlement stressors are the project activities expected to cause resettlement impacts on the PAPs. This includes three main activities:

1. Acquisition of a land plot, property or asset for the project purpose (i.e. public benefit), hereinafter referred to as LA.
2. Granting the Wastewater conveyor system the Right of Way through publically or privately owned lands or properties, hereinafter referred to as ROW.
3. Implementation of the construction activities

Expected resettlement impacts can be grouped into the following categories:

1. Relocation or loss of shelter;
2. Loss of assets including the partial loss of land equal to the acquisition land area and/or the ROW area within the affected property/asset;
3. Loss of access to assets; or
4. Loss of income sources or means of livelihood, whether or not the PAPs must move to another location. This also includes reduced property market value.

1.4.1 Land Acquisition Sites

The study found that there will be two plots acquisitioned in East Zarqa, one to be acquisitioned in West Zarqa, and one plot to be acquisitioned in Russiefah.

The four plots subject to land acquisition were surveyed by the RAP team which showed that three sites are vacant of any type of use up to the date of the survey (August 2011), and one plot in Russiefah was found to be partially residential land having the targeted parcel within this plot vacant of any use. The total calculated area of the four plots is 17,414 square meters, and the proposed area for acquisition is 4,772 square meters. Three plots (cases 41, 74 and 94) are suggested to be partially acquisitioned.

1.4.2 ROW Resettlement Sites

A total of 72 sites were found to be affected by resettlement actions caused by obtaining ROW for the proposed Project across privately and governmentally owned sites. The distribution of ROW cases to the three package areas shows that there are 45 cases in East Zarqa, 21 cases in West Zarqa and 6 cases in Russiefah.

Eight plots are governmentally owned which include a plot in West Zarqa (owned by Zarqa Municipality) being currently used as park leased to an investor for operating it, in addition to plots owned by the Ministry of Education, by the Public Security Department, and Housing and Development Corporation. Nine plots are currently used by the owners for residence and 48 plots are vacant of any use up to the date of the completion of the surveys. there is also six plots are not yet surveyed since they were

identified for ROW after the production of the draft RAP and one plot could not be surveyed due to lack of information on plot information from DLS.

1.4.3 Impacts of Land Acquisition on PAP's

All plots proposed for acquisition by the project are vacant of any use at the time of the survey, except to plot number 94 which partially residential land. There are no tenants or users to the date of surveys completion (Mid august 2011).

1.4.4 Impacts of ROW on PAP's

A total of 72 cases have been identified as unavoidable from obtaining ROW within it. The impacts on each of the identified plots are described in the report. The spectrum of impacts generally includes:

- Loss of assts (removal of trees, retaining and fencing walls, septic tanks and cesspits, paved corridors and stairs). Such loss of assets is understood to cause direct economic loss equal to the cost equivalent or Restoration, in addition it has indirect economic loss for the temporary loss of productivity or use like the case of the production cost of trees for the temporary (before providing equivalent or rehabilitating) of trees, or for not using one or more of the facilities like the septic tank.
- loss or limitation of access to the construction areas within the plot during the construction phase;
- Risks to resident's health and safety mainly by the use of machineries, excavation trenches, materials and waste piles, noise, dusting, etc.

It should be noted that these impacts affect all family members who shall be considered as PAP's of the Project. However, for compensation purposes, only the owner of the property is eligible to compensation.

1.4.5 Impacts on Businesses located within the Project Corridor

In general, those businesses are subject to the following stressors:

1. Loss of access to business due to construction activities within the roads and close to these businesses;
2. Disruption of standard business like in the case of the Public Security Department – Department of Drivers and Vehicles Registration / Licensing;
3. Loss of income due to the decline in the number of customers due to the loss of access, losing access to the facility for movement of goods and materials;

4. Noise and dust which can be of low impact to some of the business like the mechanical services and of significant impacts such as the case of the poultry farm which can cause a high percentage of poultry death and as such economical losses;
5. Disturbance of traffic; and
6. Disruption of utilities.

Prolonged construction activities are likely to result in cumulative impacts of increased economic loss.

1.4.6 Alternatives considered for avoiding or minimizing resettlement during RAP preparation phase

The initially identified 98 involuntary resettlement cases were surveyed by the RAP study team to assess avoidance and potential for impact minimization. Avoidance and minimization measures have been jointly discussed with the Project design team for 60 resettlement cases out of the identified 98 cases since those were found to have significant impact on respective PAPs, were initially identified by the RAP team as priority cases for revision by the design team, and/or have potential for mitigation.

Avoidance/minimization actions were identified for cases which can be avoided through revision of the prepared designs and as such reduce the impacts on (1) respective vulnerable surveyed PAPs, and (2) other affected plots whose owners could not yet be interviewed.

Whenever avoidance is not possible, the Consultant and the Design Team discussed measures effective for minimizing the involuntary resettlement impacts on PAPs for application in the final Project designs. The minimization measures discussed include:

1. Introducing ROW measures instead of land acquisition for cases which does not qualify for land acquisition and can be limited to ROW ;
2. Shifting the alignment to existing neighboring plot or planned road whenever such roads are identified ;
3. Shifting the alignment to a neighboring plot whenever the impact on the alternative plot is significantly lower ;
4. Narrowing the ROW to its absolute width where practically possible to;
5. Considering the replacement of the cemented piping option with manholes every 50 meters (length) with steel pipes that does not need manholes to be constructed within the affected plot thus to meet the PAP's conditions for accepting ROW within their plots; and/or
6. Considering cancelation of the alignment section whenever the impact is severally significant on the PAP.

In summary, the impact minimization efforts during RAP preparation superseded in avoiding the total of 22 plots out of the initially identified 98 cases. This includes avoiding 11 cases of land acquisition and 11 cases of ROW. In addition, to changing the ROW for 25 plots into new ones thus to avoided sever involuntary resettlement impacts by ROW stressors.

1.4.7 Suggested Mechanisms to Minimize Resettlement during RAP Implementation Phase

The Project needs to maintain periodic updates of the information about the new roads constructed and planned construction, results of parcellization, etc., through establishing and maintaining strong cooperation and collaboration with the three respective municipalities in Zarqa and with DLS. Also, it needs to consider re-visiting the RAP and the Project design for each package immediately prior to launching construction activities to ensure the above information is taken into consideration.

The implementation phase of this project will need, in a number of occasions, to reduce the currently proposed ROW to be less than the standard set ROW width for sewer lines and trunk lines. This means that the ROW for some cases should be minimized to become below three meters whenever the 3-meter ROW width is not possible and avoidance is not applicable.

The project needs to take into consideration that currently reported vacant plots could be constructed on in the period from now until the launching of the Project construction phase. It is imperative that ongoing consultation, communication and information exchange with the PAPs in the area is needed to be established, enhanced and maintained to ensure that PAPs take the proposed Project designs and layout into their consideration when they plan for construction in their own lands.

1.5 RAP Objectives

The key objective of the land acquisition and resettlement program for the proposed project is to ensure that the proposed Project have net positive impact on PAP's socio-economic conditions and livelihood, and that PAP's by land acquisition and involuntary resettlement are able to improve or at least restore their incomes and standards of living after land acquisition/ resettlement. It aims to facilitate, support and control all involuntary resettlement cases identified under this project thus to be in full compliance with the World Bank OP 4.12 and applicable Jordanian Legislations.

1.6 Legal Framework for Involuntary Resettlement by the Project

The legal framework and entitlement policies for the land acquisition and resettlement to be carried out for the proposed project are derived from the provisions of the Land Acquisition Law of Jordan and from the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12). The RAP provides review and

analysis of related legislations and policies, and summarizes the objectives and principles of the resettlement program and provides the detailed entitlement framework for different types of impacts anticipated under the project. Compensation/assistance will be under the specific provisions of this resettlement framework.

Enforced national legislations concerning resettlement in Jordan are governed by the Land Acquisition Law, WAJ Law and the provisions of the Management of Government Law. Applicable Jordanian Resettlement Laws were found to be harmonized with many of the key requirements of the World Bank OP 4.12, this includes:

1. The requirement to inform the PAPs of intended land acquisition for the purpose of the respective Project;
2. The requirement to pay compensation where land is compulsorily acquired;
3. The need to compensate for the acquisition of land, properties and assets based on market value of the property at the date of the acquisition decision;
4. The requirement to restore and rehabilitate affected assets and property, and/or to compensate for losses, whether temporary or permanent in production or damage to productive assets and crops; and
5. The provision for pre-judicial avenues for resolution of disputes and rights of appeal.

There are, however, five broad areas discussed in the report where provisions required under OP 4.12 extend beyond those required under current Jordanian legislation. Full discussion of gaps and gap-filling approach for the purpose of this project is provided in the RAP.

Based on the outcomes of the legal review and the review of World Bank OP 4.12, key principles to be followed in the design and implementation of the land acquisition and resettlement program were identified as follow:

1. Affected people will be consulted on, and provided opportunities to participate in, the design and implementation of the land acquisition and resettlement program.
2. PAP's entitled to compensation shall be negotiated for the value of compensation and their consensus is important to be achieved.
3. Land acquisition and involuntary resettlement will be avoided, as far as possible, or minimized, exploring different design and location options for project infrastructure during project construction.
4. Assets and properties belonging to affected people who are planned to be acquisitioned or expected to be partially or totally damaged or lost will be compensated at their replacement / equivalent value, in full and without delay.

5. The Project should consider the market price as the minimum in the negotiations with the PAPs and the negotiation selling should be the cost of the equivalent as instructed by the World Bank Policy.
6. Compensation for affected assets will be paid prior to the initiation of civil works in a given location.
7. Affected people will be assisted to restore their incomes and standards of living, regardless of the legality of their land tenure.
8. Special attention is to be paid to vulnerable people; i.e. the poor people and women affected persons thus to ensure that the project impact on them are avoided, minimized and compensated for in full. Follow up assistance and livelihood support are to be considered whenever needed post to the project if the anticipated effects on them are likely to affect their livelihood in the future.

1.7 Eligibility

To the date of this report, a total of 76 plot are expected to be affected by the proposed land acquisition and obtaining the ROW for the wastewater system. This study initially identified total of 151 PAPs expected to be affected by the proposed Project acquisition of land and obtaining and enforcing ROW within private-or government- owned plots of land. Some of these plots are already in use by the owners, few are undergoing construction, few are planned for construction in the near future and the remaining is at current time vacant from any use.

The Report provides a summary account of the identified PAPs and the progress in consultation with PAPs and the suggested revisions for each case based on the findings and observations gathered during the field survey of the identified plots and from the consultation of the identified PAP's and other local interest groups. 11 PAP's were found owning more than one plot that has been identified as target by the project for land acquisition and/or ROW.

A total of 49 public service facilities were identified within the proposed project corridor during the field survey of the proposed wastewater system alignment which is likely to be directly or indirectly affected for a temporary period, i.e. the construction period, mainly by limiting access to these facilities. This includes mosques, churches, schools, parks and police stations.

The total number of business establishments recorded in the three proposed Project three areas reached 536, of which 280 establishment are vacant and not in use. The distribution of these businesses in the three study areas shows that 52.5% are located in West Zarqa, and more than half of the identified businesses to be affected by the proposed Project will be in West Zarqa Project Package Area.

1.8 Valuation of and compensation for losses

Based on the information available to date to the consultant, an initial estimation of the costs of the land acquisition and resettlement program for each case are provided in a separate document since asset valuation information are confidential, however, PAP's eligible for compensation for land acquisition and ROW impacts are entitled to access information relevant only to their respective cases.

All ROW cases are considered eligible for compensation against reduced property/plot value consequent to the construction of ROW within their respective plots and limiting development within these plots for an area of the plot equal to the ROW distance crossing the plot multiplied by the construction width.

Land prices, per square meter of plan, were suggested based on market price suggested by DLS, land traders and the respective PAP. Calculation notes are provided for each case including the type of effect expected, the measurements of the possibly will be affected asset and the unit cost of these assts. However, for a number of cases the estimation of costs and budget for expected losses related to loss of assets could not be arranged due to shortage of information about the specific plot affected, its assets and land value and the expected losses. Estimation of costs for these cases should be arranged by the RAP implementation specialist as early as possible and at least one month before the commencement of construction activities in respective contract area.

Economic loss of business is not estimated at this stage since all of the identified loss risks are dually accidental and related to non-compliance with the applicable construction codes and the mitigation measures provided in the EIA. With proper implementation of the project mitigation measures, compensation to businesses is not expected.

1.9 Resettlement Measures

Specifically for this Project, an entitlement matrix is presented which provides the legal and rational context for assigning case-specific entitlements for each affected plot and PAP. Resettlement measures for the proposed project are discussed in detail in the report and include: Financial Compensation, Restoration of affected assets and Income Restoration Programmes.

Since this development will not cause temporarily or permanent mass resettlement/relocation of the population, and since the involuntary resettlement for the MCC Compact is related to land or property acquisition for the implementation of a public utility or infrastructure project, the following measures were found do not apply to this RAP:

- Site selection, site preparation, and relocation
- Housing, infrastructure, and social services

- Environmental protection and management
- Integration with host populations
- Community participation

1.9.1 Financial Compensation

Financial compensation packages can be categorized into two groups: (1) Planned financial compensation for identified and assessed involuntary resettlement cases; and (2) Financial compensation for accidental and unplanned involuntary resettlement cases. The planned financial compensation is mainly recommended for:

- Acquisition of land plots for the identified four cases which is planned and intended to follow seller/buyer agreement;
- Reduction (partial loss) of plot market price for ROW cases incurred by restricting the use of land within the ROW;
- Expected/assessed loss of assets and properties located along the ROW within the respective plot. This include stairs, house gardens (trees and vegetation), paved/tiled grounds, retaining walls (cement and metal), fencing walls (cement blocks), cesspits and cesspools, wastewater systems, water supply pipes, etc.

The financial packages for compensating acquisition of land are estimated, for budgeting purposes, based on the market price. The market price was estimated based on three main sources of information: DLS data on plots market prices, information obtained from interviewed PAP's and expert opinion of land traders. These financial compensations should be negotiated with the respective PAP's and agreed on based on a written agreement.

As mentioned above, compensation for ROW impacts include reduction in plot/property market price and loss of assets as is normally done by WAJ. All PAP's owners of plots proposed for obtaining ROW for the waste water system to cross it are considered eligible and entitled to compensation equal to the area of land within their respective plots where construction corridor is needed and restriction of any physical development within area will be strictly prohibited by the proposed project. This also includes any Set-back areas left from the boundaries of the plot before obtaining ROW for the project within the plot.

Compensation terms and conditions are also discussed in the RAP.

1.9.2 Restoration of affected assets

The project construction activities are expected to impact some of the assets along the ROW within the affected plots. Assets were identified and assessed for plots surveyed during RAP reparation phase, however, the assets within the plots which are not yet surveyed are to be identified and assessed.

Also, changes like construction of new assets within the surveyed sites are expected since the surveys were completed in mid August 2011. Therefore, assessment of assets should be revisited as early as the RAP implementation is launched which need to update RAP information on assets for all identified plots.

As for resettlement measures related to affected assets, the RAP suggests, after consultation with the MCA team, having affected assets compensated for before the launching of the construction activities. Therefore, Restoration measures are considered irrelevant to those cases unless restoration is specifically preferred by the PAP.

1.9.3 Income Restoration Programmes

Based on the to-date available information on plots and PAP's identified being subject to involuntary resettlement by the proposed project, it is understood that none of the PAP's are eligible for income restoration programmes as stipulated in OP 4.12 under sections B and C of Article 6.

For the new cases which were identified after the preparation of the Draft RAP in replacement of plots which were found to be of severe impact on PAP's, income restoration requirements are to be assessed as early as possible during RAP implementation phase. Income restoration programmes are to be developed and implemented whenever applicable under OP 4.12 under sections B and C of Article 6.

1.10 Grievance Redress Mechanisms

A project-specific grievance redress mechanism should be established under which affected people with complaints related to the land acquisition and resettlement process can approach the responsible organization/person to redress of their claims. The RAP suggested framework for these mechanisms which discuss grievance aspects, receiving and documenting claims, information gathering, claim assessment and management, in addition to decision making, reporting and monitoring.

1.11 Organizational Responsibility

1.11.1 Organizational Framework

The institutional responsibility for implementing the Resettlement Action Plan rests with the MCA and WAJ, who will carry out this responsibility in coordination with the project contractor, with DLS and with the local government units (Zarqa Governorate, Zarqa Municipality, Russiefah Municipality and Al Hashimiyah Municipality).

MCA will be responsible for preparation of resettlement instruments, payment of compensation and provision of other assistance to affected people, covering the cost of the land acquisition/resettlement program, consultations with and participation of affected people in the design and implementation of the land acquisition and resettlement program, establishing and managing the grievance redress program, and monitoring and evaluation of resettlement implementation.

Within MCA Organizational and Functional Structures, there are five main functional position delegated specific responsibilities for RAP implementation and supervision, having the Environmental and Social Director as the focal point for the RAP overall implementation.

Under MCA awarded contracts, MCA will hire two companies to provide services related to Project overall implementation and to RAP implementation, those are:

- Project Engineer (also known as the Project Management Company – PMC)
- RAP Implementation Team (Company)

The Project Engineer (also known as the Project Management Company – PMC) is a third party hired by MCA for the overall management and supervision of reinforcement and expansion project. This company will be responsible for, in addition to their engineering and management responsibilities, the overall monitoring and evaluation of RAP implementation. They are requested to incorporate the Grievance Mechanism within their management system, integrate RAP results in their action plans for scheduling construction activities, supervise contractors and sub-contractors compliance with the ESMP mitigation measures related to impacts on PAP's and business, enforce penalties for non-compliance, and also take part in Grievance Committee.

MCA will hire RAP Implementation Team (Company) to take charge of RAP implementation responsibilities up to the level of concluding agreements with respective PAP's. The company responsibilities are discussed in detail in **Section 14.2** below.

Unless seller/buyer agreement is reached between MCA and owners of plots intended to be acquisitioned for the purpose of the project, all land acquisition cases are in need, and shall be receiving, approval from the cabinet of ministers which has pre-requisites and procedures described in the report. The land acquisition process is requested by the Land Acquisition Law to be arranged and carried out by DLS however the Project owner shall be responsible for compensating the respective PAP's.

For ROW cases, MCA will be responsible for the implementation of this RAP. WAJ will be responsible for providing authorization to MCA and to provide necessary support for RAP implementation in compliance with applicable national legislations, World Bank OP 4.12 and MCA guidelines.

For the purpose of this Project, it is recommended to establish a small committee constituting representatives of WAJ, MCA, DLS and Zarqa Governorate to coordinate the acquisition process and to take part in related negotiations with PAP's and ratification of related agreements.

MCA needs to implement this RAP and to ensure that all OP 4.12 requirements are met. Therefore, the RAP suggests an organization structure which integrates current MCA structure and line management.

1.11.2 RAP Implementation Team Responsibilities

RAP implementation responsibilities discussed in the RAP include 14 items and constitute surveys and data gathering, operational planning, facilitation and coordination tasks, documentation and record keeping, and monitoring and evaluation.

1.12 Cost and Budget

As it is indicated below, estimated budget is provided based on the calculated cost for every budget line. The minimum budget calculated based on DLS minimum unite price for each land plot, and based on 80% of the calculated assets restoration costs. The maximum budget calculated based on DLS maximum unite price for each land plot, and based on 120% of the calculated assets restoration costs. The details on calculations are provided in below sections.

The total estimated budget for RAP implementation is calculated as follow:

Budget Range	Budget (US\$)
Calculated	1,978,158.32
Minimum Budget	1,582,526.66
Maximum Budget	2,373,789.99

It should be noted that the staff time cost for other MCA, MCC and WAJ staff time is not included.

The estimated cost for RAP implementation at the case level for each specific involuntary resettlement case is provided in a confidential annex to this RAP, however, PAP's entitled for compensation are entitled to access information related only to their respective cases and plots. The presentation of such information should be upon written request by the respective PAP or his legal representative, and such information is to be shared within three to five working days from the date of the request, and at least two working days before the agreed negotiation date.

1.13 Monitoring, Evaluation and Control

1.13.1 Monitoring and Evaluation

Monitoring and evaluation of RAP implementation is of high importance and is needed to be properly designed and implemented. Monitoring framework is suggested to be for both implementation process and results, and to be carried out against 26 parameters which are grouped in three sets, as follow:

- I. General parameters**
- II. Process parameters**
- III. Results parameters**

Though monitoring includes weekly reporting for progress in negotiating RAP agreements with respective PAP's, the overall monitoring reporting is required to be arranged on monthly basis. Reporting requirements are also described in the RAP.

Evaluation of RAP implementation is required to be arranged on annual basis, in addition to mid-term and final evaluation. The final evaluation report is needed to provide specific recommendations on additional measures required to ensure net positive impact on PAP's whenever necessary, in particular for livelihood improvement whenever livelihood impacts are evident to be affected by involuntary resettlement by the proposed project.

The RAP implementation body; i.e. MCA or a third party hired by MCA will prepare the reports on the monitoring of the implementation of the RAP and the livelihood support program and submit it to MCA Environmental and Social Director for review, compliance check and decision advice before it is submitted to MCA CEO for information and decision if necessary. Related decisions are to be informed back to the RAP implementation body.

The Project Engineer will incorporate monitoring results on RAP implementation in his periodic supervision reports submitted to MCA P2-Project Manager and prepare quarterly Monitoring Reports and submit it to MCA Environmental and Social Director emphasizing mainly the process and results parameters. The Engineer should also full monitoring on contractors non-compliance cases that leads to

grievances by the PAP's, the corrective measures taken to resolve the non-compliance cause and effect, and the compensation measures decided/recommended by the Grievance Committees.

Strong communication should be maintained on RAP implementation, including grievance mechanisms and results, between MCA P2-Project Manager and MCA Environmental and Social Director. Therefore a copy of each RAP monitoring and evaluation report submitted by the RAP implementation staff/consultant and by the Engineer is to be shared with the Project Manager by MCA Environmental and Social Director. Copy of the Engineer Monitoring Report is to be shared by MCA P2-Project Manager with MCA Environmental and Social Director.

This is critically important since the Project Implementation Schedules are dependent on RAP implementation progress and results for the project sections where LA and ROW cases are identified.

Evaluation Reports are to be submitted by MCA Environmental and Social Director to the MCC and WAJ annually, either as a standalone document or as part of the monitoring of the environmental monitoring report. The report will include a quantitative report on the amount of land acquisition and resettlement completed and provides a qualitative evaluation of implementation, based on interviews with the affected people.

For difficult cases, in particular cases which are found to be questionable with regard to compliance with the World Bank OP 4.12, related information are to be communicated and reported to MCC for advice by the MCA Environmental and Social Director.

1.13.2 RAP Control and Reporting

The RAP should include provisions to ensure the adherence of the various cooperating parties to its full and timely implementation and monitoring. To achieve this, a control system needs to be implemented. The elements of this control process are to include:

- 1. Document and Record Control**
- 2. Checking and Corrective Action**
- 3. Claims and Grievances**
- 4. Auditing**
- 5. Review Process**

The proposed reporting system encompasses the following reports:

- PAP's Consultation and Negotiation Reports (RAP Implementation Committee minutes of meetings and copies of the agreements signed with respective PAP's are to be provided as annexes to the report)
- Progress Reports

- Weekly negotiation progress report
 - Monthly progress report
- Monthly Monitoring Reports
- Claims and Grievances Reports
- Annual Reports
 - Annual Audit and Evaluation Report
 - Annual Rap Implementation Report

It is recommended to arrange the RAP reporting, monitoring, audit and evaluation procedures within the Project overall Environmental and Social Management System. Such system needs to involve implementing agency of the system and plans which is understood in this case to be the MCA, and a supervisory and advisory body which is understood to be the MCC.

1.14 Schedule of Implementation

Schedule of RAP implementation is discussed in the RAP including:

1. Obligatory time frame governed by Jordan Land Acquisition Law No. (12) For the year 1987 which provides clear time frame for the land acquisition process; and
2. A time plan suggested for RAP implementation

RAP overall implementation schedule is suggested as an initial schedule which should be revisited and updated as early as the Project Management Company (PMC, Consultant) is hired thus to capture the Project construction plan for each package area. Updating the time plan is the responsibility of the RAP Implementation body/persons (employees or consultant hired by MCA) in coordination with and subject to the approval by the MCA Environmental and Social Director.

It should be noted that RAP implementation for each particular case should be completed prior to construction within the respective plot. Therefore, RAP implementation schedule should be synchronized with the construction schedules.

The implementation is designed to be implemented over the whole project cycle of five years noting that most of the work (acquisition of land and signing ROW agreements with PAP's) is to be completed in the first two years. The remaining period of implementation is mainly for (1) follow ups on the complex cases that require parcelization of the plots and afterward negotiation with the PAP to reach agreement, and (2) implementation of the Grievance Mechanism.

The proposed start date for RAP implementation is between late April and Early May 2012.

2 INTRODUCTION

MWH was retained by the Ministry of Water and Irrigation / Water Authority of Jordan (MWI/WAJ) on November 19th, 2009 to perform consulting services for the preparation of the feasibility study, environmental and social impact assessment and detailed designs and bidding documents for Zarqa Governorate wastewater system reinforcement and expansion. This report presents the Resettlement Action Plan (RAP) report as Annex 3 to the Environmental and Social Impact Assessment (ESIA) for the mentioned project.

The proposed project has recently reached the final design stage by MWH for the benefit of the Water Authority of Jordan with funding from the Millennium Challenge Corporation (MCC). Review of the Project designs showed that acquisition of land and obtaining wastewater system Right of Way to pass through a number of governmentally or privately owned properties / land plots is unavoidable to achieve the Project stated goals for the best interest of the public.

Compulsory acquisition of land by legal authority in the public interest is sometimes necessary to achieve project objectives. Involuntary Resettlement of people is a common impact by compulsory acquisition of land of a part of or the whole plot of land, and for a temporal or permanent period. Affected people by involuntary resettlement may include those considered as the ultimate beneficiaries, in addition to people who are not beneficiaries of the project.

There are always impacts and effects that require mitigation measures following logical sequence of avoidance of unnecessary actions leading to the impacts, minimizing the impact, compensation for damages and losses, and finally remediation of the impact and its consequences on the affected people. Therefore, due process that establishes the rights of the persons affected by actions of expropriation, loss of shelter, restrictions of access to economic resources and facilities, or of loss of income must be followed.

This RAP has been prepared in compliance with the applicable national legislations in Jordan and with the triggered World Bank social safeguard policies, in particular the Operational Policy 4.12 on Involuntary Resettlement.

Finally, it should be noted that the proposed development will not cause temporarily or permanent mass resettlement/relocation of the population, and since the involuntary resettlement for the MCC Compact is related to land or property acquisition for the implementation of a public utility or infrastructure project, the following measures were found do not apply to this RAP:

- Site selection, site preparation, and relocation
- Housing, infrastructure, and social services
- Environmental protection and management
- Integration with host populations
- Community participation

3 SCOPE AND APPROACH OF THE RESETTLEMENT ACTION PLAN

Since the nature and design of the proposed project indicate that it will involve land acquisition in addition to socio-economic implications related to involuntary resettlement of locals as defined by the MCC policies and guidelines, and as defined by the World Bank Operational Policy on Involuntary Restatement number 4.12, this project triggers the application of the World Bank OP 4.12 which requires the preparation and implementation of a project-specific Resettlement Action Plan (RAP).

The overall objectives of the Bank's policy OP 4.12 on involuntary resettlement as provided in the TOR are the following:

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

It is also stated in the TOR that this policy covers direct economic and social impacts that both result from MCC-assisted investment projects, and are caused by:

- The involuntary taking of land resulting in relocation or loss of shelter; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or
- The involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

3.1 Use of the terms “Involuntary” and “Resettlement”

The proposed project must comply with the World Bank OP 4.12 since the Project is exercising the legal power of the Government of Jordan to compulsorily acquire private property in the public interest, and therefore the World Bank policy termed “involuntary resettlement” and its procedures is be applied to the project.

The term “**Involuntary**” refers to having the property in question acquired without the prior and informed consent of its owner or without the owner's power of choice due to the ability of the government to forcibly acquire the land (OP 4.12 note 7).

“**Resettlement**” in the context of the World Bank policy and in this document is applied not only to physical displacement, but also to economic displacement. It applies to any adverse socio-economic impact arising directly from expropriation of land, irrespective of whether or not there is physical relocation of people (relocation or loss of shelter). The direct impact of property acquisition on livelihoods and economic activities, loss of assets or access to assets, loss of access to income sources or means of livelihood, whether or not the PAPs must move to another location, are also included in the term “**resettlement**” or the concept of “**displacement**”.

This RAP is a site-specific instrument to comply with the applicable national and MCC policies and government legislation, in particular the Jordan Land Acquisition Law number 12 for the year 1987 and the World Bank OP 4.12. It applies to the expropriation of any property that lies within the immediate project area implementation corridor, including all project components and activities, and that is prerequisite for the project or a direct consequence of it. Thus, even where a project is located on vacant land, the policy would apply if, before the project had started, a previous action had cleared that land of people or activities in order to make way for the project.

3.2 RAP Study Objectives

The overall objective of this study is to carry out an assessment of involuntary resettlement impacts by the project on the Project Affected people (PAPs), and to prepare an effective implementation-ready Resettlement Action Plan (RAP) as part of the ESIA and in compliance with MCC related policies, guidelines and procedures, and with the World Bank social safeguard policy on Involuntary Resettlement (Operational Policy number 4.12).

The RAP aims to identify, assess and evaluate potential involuntary resettlement of PAPs by the proposed project, and to suggest efficient resettlement mitigation, management and monitoring measures. The assessment needs to cover the different types and modalities of involuntary resettlement including (1) relocation or loss of shelter, (2) loss of assets or access to assets, or (3) loss of income sources or means of livelihood, whether or not the PAPs must move to another location.

The study is carried out following a participatory approach that involves the project stakeholders and PAPs, and comply with Jordan national legislation, MCC guidelines, and the World Bank’s OP 4.12 policy and guidelines on resettlement.

3.3 Geographic Scope

The **geographic scope for this RAP** covers two of the Project areas where the Project operations are funded by MCC, namely East Zarqa and West Zarqa. However, the **proposed project geographic scope** constitutes three areas within Zarqa Governorate, namely East Zarqa, West Zarqa and Es-Sukhneh. In more details:

- The Project beneficiary areas are composed of a total of 33 neighborhoods (locally known as Hai) belonging to three municipalities (Al-Zarqa Municipality, Russiefah Municipality and Al-Hashimyah Municipality) in addition to the in-between connections that fill the network gaps between the neighborhoods listed in section 4.3 in pages 4-6 to **Error! Bookmark not defined..**
- The areas covered by this RAP are composed of the above neighborhoods excluding Es-Sukhneh which is not covered by this RAP,
- and the ROW and LA cases identified in the Project Right of Way Report and as such addressed by this RAP were found to be located in only 13 neighborhoods in the three areas, namely:
 - In East Zarqa: Hai Batrawi, Hai Mamel Al Toub, Hai al-Hashimyah and Hai Al-Iskan;
 - In West Zarqa: Hai al-Jneineh, Hai Ramzi, Hai al-Madinah al-Munawwarah, Hai Umm Bayadhah, Hai al-Duwaik, Hai al-Qadessiyah and Hai al-Falah; and
 - In Russiefah: Hai al-Rasheed al-Shamali and Hai al-Qadessiyah)

More details on the geographic scope of the Project are provided in the Project Environmental and Social Assessment Report (ESIA).

3.4 RAP Preparation Approach

The overall RAP preparation approach constituted the following activities:

1. Identification of and consulting the Project Affected Persons (PAPs);
2. Census of PAPs affected by the project acquisition of land, gathering information on their socio-economic character, identification and valuation of the project to-be-affected assets;
3. Proposing resettlement measures that are in compliance with the MCC policies and guidelines, World Bank OP 4.12 and related national legislation;
4. Drafting a RAP implementation schedule;
5. Estimation of the RAP costs and budget; and
6. Proposing RAP monitoring and evaluation measures.

The preparation of the detailed Resettlement Action Plan (RAP) for the project builds upon the information presented in the RFP, information available from approved and trust-worthy secondary sources such as the Government of Jordan Department of Statistics, and the finalized and approved socio-economic studies prepared for the project.

The RAP study team worked closely with the design team to ensure that all land acquisition and resettlement impacts that can be avoided by design modification are taken into consideration and modified accordingly. All design modifications have been documented and reported in this RAP.

The RAP includes identification of all Project Affected Parties (PAPs) expected to be affected by the proposed project based on the final detailed design. The differences among PAPs on the basis of gender and vulnerability are accounted for by disaggregating the PAPs based on gender, vulnerability to involuntary resettlement as defined by the World Bank OP 4.12, and the type and magnitude of resettlement impact to which the relevant PAP group is vulnerable.

Upon completion of the surveys and consultations, assessment of involuntary resettlement was carried out using the information and data collected from primary and secondary sources, and based on the project design details, most importantly land acquisition needs and plans. This was followed by valuation of assets and compensation requirements, budgets, designing resettlement measures in compliance with the World Bank OP 4.12, and proposing monitoring and evaluation measures.

Details on the study and planning methodology are provided in Appendix.

4 PROJECT DESCRIPTION

4.1 Project Need, Objectives and Scope

The project of reinforcing and expanding the Zarqa Governorate wastewater system is perceived to be an important step towards protection of both public health and water resources, as well as a step towards improving service levels and consequently living standards for the population of that governorate. Also, since the national water policies consider treated wastewater as a resource for irrigation, this project would enhance the volumes of wastewater collected for treatment and reuse for agricultural productivity.

This project aims at achieving the following for Zarqa Governorate:

- Decrease or eliminate sewage overflows and the resulting health risks and costs; and
- Extend the piped sewerage system to that part of the population who are presently served only by water and not by sewer.

4.2 Project Study Area

The project covers selected areas in Zarqa Governorate which extends from Zarqa River in the west to the Saudi border in the east. The major communities within the study area include Zarqa, Russiefah, Hashimyah, and Es-Sukhneh. **It should be noted that this RAP concerns the MCC-funded portion of this Project and as such covers only the East Zarqa which includes Hashimyah, and West Zarqa which include Russiefah. Es-Sukhneh Zone is not covered by this plan.**

A layout of the proposed wastewater networks is illustrated in **Figure 1**.

.

4.3 Description of Proposed Wastewater System Reinforcement and Expansion

To meet the needs of the Zarqa wastewater systems in the proposed service area through the year 2035, improvements to the existing systems will be required. The objective is to develop a long-term plan for the improvement of the wastewater systems.

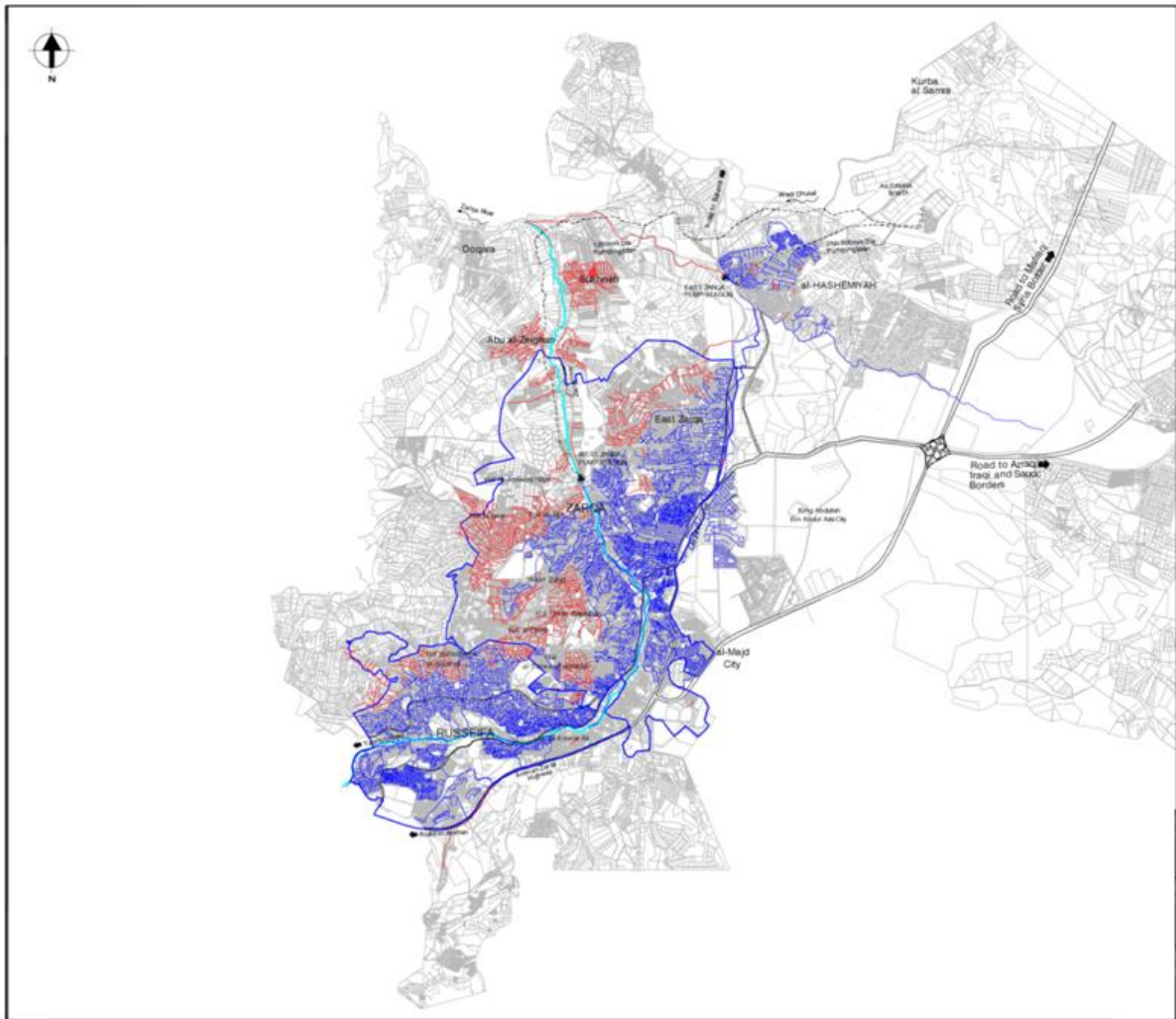


Figure 1: layout of the proposed wastewater networks

4.3.1 Proposed Wastewater Management System

The proposed wastewater management system for the governorate of Zarqa involves keeping the conveyance of all flows generated within the project area to As Samrah WwTP. This system involves the upgrading of the main elements of the existing Zarqa wastewater conveyance system to serve the projected population of Zarqa until the year 2035.

The currently un-served communities and new expansion areas within Zarqa, Russiefah, and al-Hashimiyah municipalities will be served by the existing Zarqa systems - West Zarqa Pumping Station System (WZPS) and West Zarqa Pumping Station System (EZPS). The Zarqa Free Zone, al-Hashimiyah University, and the new King Abdullah Bin Abdul Aziz City will be served through the EZPS System, while the new al-Majd City will be served through the WZPS system.

The new service areas within the catchments of the existing networks consist mainly of the newly developed neighborhoods of Zarqa and Russiefah west of the Zarqa River and some parts of Hai al-Batrawi in north Zarqa.

The key features of MCC-Funded Project are:

- I. Construction of about 209 km of secondary sewers to extend wastewater collection services to the following areas:
 - Hai al-Qamar
 - Hai Umm Bayadhah
 - Hai al-Dweik
 - Hai al-Falah
 - Hai al-Razi
 - Hai al-Rasheed al-Shamali
 - Hai al-Jraiba
 - Hai al-Batrawi
 - Hai al-Jneineh
 - Hai al-Madina al-Munawara
- II. Construction of 18.5 km of secondary sewers in the following areas to fill wastewater collection services gaps:
 - Hai Ramzi
 - Hai al-Zawahreh
 - Hai al-Qadessiyah
 - Hai Ja'far al-Tayyar
 - Hai al-Malek Talal
 - Hai al-Jundi
 - Hai al-Batrawi
 - Hai al-Hashimiyah al-Janoubiyah
- III. Construction of 18 km of trunk lines in diameters ranging from 300 to 900 mm to connect the above collection networks to the existing systems.
- IV. Reinforcement of the existing collection networks in Zarqa, Russiefah and al-Hashimiyah by construction of 17.3 km of new and replacement sewers ranging in diameter from 200 to 1400 mm.
- V. Rehabilitation of the existing collection networks in Zarqa, Russiefah and al-Hashimiyah by replacement of 15.4 km of 200 to 300 mm diameter sewers.

Cleaning of 50 km of sewers in West Zarqa system and 20 km in East Zarqa system using bucket machines with the remainder of the WAJ/Zarqa estimated 200 km requiring cleaning to be carried out in Phase II.

Certain Design Criteria was approved and adopted in preparing the detailed design and tender document for the construction of Zarqa Governorate Wastewater system Reinforcement and Expansion. This included the material of pipeline, the depth of sewers, the minimum and maximum slopes, the House connections and the maximum depth of excavation to serve the houses within the Project area and to achieve the most effective technical feasible solutions.

Designed sewers in most cases were running through the planned opened roads and within the right of way of these roads and any other natural routes. Avoiding the crossing of private lands was highly considered as one of the most important criteria in the design. Alternatives and options were surveyed and studied to achieve this criterion.

However; there were some challenging cases, where; applying this criteria was not possible to be adopted as it will end up to un serve some areas due to natural ground difficulties, or will cause unjustified very high depth of excavations, therefore; the most practical effective and feasible solutions were to cross private plots boundaries. In these cases the designs took all nessessary and possible measures to minimize the distribution of the owners and to minimize the land required for crossing by utilizing the setback area within the plot and to be as far as possible from the foundations of the houses and any other existing constructions, and these cases as identified as Right of Way (ROW).

In very few other cases there was no possible technical solution with no significant impact. These cases required acquisition of the private land and are summarized in this report as Land Acquisition cases (LA).

Both ROW and LA cases were identified, described and reported in the Project Right of Way Report. This RAP addresses all thses cases described in the before mentioned Report.

More details on the Project components, areas and activities are provided in the ESIA Report.

4.3.2 Planning Criteria

The following criteria and projections have been established and used in the formation of the Master Plan:

- **Planning Period:** The planning period will be through year 2035. Therefore, key planning parameters, such as population, water consumption and wastewater production projections, have been defined in five-year increments through 2035, with the first being 2010.
- **Level of Service:** The initial focus of the reinforcement and expansion program will be on bringing sewers to areas that are currently only served by water and to areas that have inadequate wastewater collection systems.
 - Sewer Design and Installation Considerations
 - House Connections Considerations
 - Manholes Considerations
 - Pumping Station Design Criteria: Sewage pumping station discharge flow rates shall, at minimum, accommodate the 25-year planning horizon.

5 PROJECT POTENTIAL RESETTELEMENT IMPACTS

5.1 Project components or activities that give rise to resettlement

Project demand for land acquisition is mainly for:

1. Construction of a new pumping station at Es-Sukhneh
2. Expansion of the existing pumping stations in East Zarqa and in West Zarqa
3. Construction of new sewer and trunk wastewater conveyors

In order to establish, enhance or re-enforce the wastewater system in Zarqa, the sewer and trunks need to follow pre-defined design criteria including maintaining to the extent possible natural flow by descending with the contours toward the lowest point of the system and/or to the pumping stations.

Such criteria forces the design to unavoidably cross a limited number of private lands and therefore the project needs to obtain Right of Way for the system within these lands. It was decided by the design team, and following Jordanian standards, that whenever the system needs to cross land plots in such a way that can prevent the owner from benefiting from it or leave part of unusable, then the ROW shall be changed into acquisition of the whole plot. This arrangement was discussed with and accepted by MCA and MCC.

5.2 Resettlement Impact Categories

Generally, and as provided in the project ROW Report, ROW and Land Acquisition 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 some 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 land owner(s) due to surrendering of his/her land to the concerned government agency.

The resettlement stressors are the project activities expected to cause resettlement impacts on the PAPs. This includes three main activities:

1. Acquisition of a land plot, property or asset for the project purpose (i.e. public benefit), hereinafter referred to as LA.
2. Granting the Wastewater conveyor system the Right of Way through publically or privately owned lands or properties, hereinafter referred to as ROW.
3. Implementation of the construction activities (land preparation by removing all on surface obstacles within the ROW and the construction corridor, trenching and digging with various depths based on location and design specifications, accumulation of construction

materials and equipments, workers activities, trench base filling, installing and fixing the sewer conveyor, trench filling, Restoration of the construction area). Hereinafter referred to as Construction Activities.

Expected resettlement impacts can be grouped into the following categories:

1. Relocation or loss of shelter;
2. Loss of assets including the partial loss of land equal to the acquisition land area and/or the ROW area within the affected property/asset;
3. Loss of access to assets; or
4. Loss of income sources or means of livelihood, whether or not the PAPs must move to another location. This also includes reduced property market value.

Those categories also set the entitlement of the PAPs for compensation discussed in the sections below. The relocation of PAP's affected by loss of shelter impact category are not expected to occur by the proposed project.

The loss of assets include, but is not necessarily limited to, buildings, rooms, stores, stairs, paved yards, cesspits, cesspools, underground water tanks (known locally as wells), above ground water tanks, house gardens, planted areas, parking areas, retaining walls and fences, shades, etc.

It should be noted that enforcing Right of Way conditions include the following before and during the construction and maintenance phases of the project:

1. Removal and deconstruction of any type of constructions, buildings, walls, stairs, cesspools, water wells, etc. within the conveyor ROW (at least three meters; 1.5 meters from each side of the centre point of the system);
2. Removal of all land lining, asphalted lands, tiles, etc. from the ROW of area; and
3. Granting the construction workers, engineers and other related Project staff access to the property during the construction phase;

Post construction and during the operation and maintenance phases:

1. Prohibiting any type of construction above the conveyor ROW;
2. Prohibiting the plantation of deep rooted trees and plants above the conveyor ROW; and
3. Granting the maintenance workers, engineers and other related Project staff access to the property during the operation and maintenance phases.

As stated above, the ROW impact will result in restricting the respective PAP's ability and rights to freely use the area of his/ her property falling within the ROW. This is likely to result in reduced value of the property unit, and in some occasions may affect PAP's livelihood.

The assumption that the value of the property will increase once the wastewater systems services are provided to the property is only theoretical and speculative. Further, it does not justify obtaining

ROW to the system without compensating the PAPs since the price of the property can increase if the services are provided without obtaining the ROW across the respective property. This is of particular concern when it came across plots which already encounter another ROW for waste water system since the cumulative impact will be of high significance. Also, it is considered significant when the area of the plot unit is small and as such the restrictions on construction within the ROW in the plot will cause significant reduction of its market value.

Impacts can be permanent or temporary based on the stressor duration and the type of impact expected. For example, acquisition of lands and properties and its consequent relocation is always permanent since the ownership of the affected land plot or property will be transferred from the original owners to the Project, while the impact on businesses by the construction activities within the wastewater system ROW in the streets will be temporary and only for periods of construction and maintenance.

It should be noted that for 11 of the identified PAP's owns more than one plot (between two and six) where ROW is planned to be granted for the project. Three of those PAPs are governmental organizations, in addition to Zarqa Municipality. Accordingly, it should be noted that though the impact on the individual plot can be minimum, but the collective impact on the respective PAP will be significant and require particular attention.

5.3 Assessment of the Involuntary Resettlement Impacts on PAPs

In the first stage of the RAP study, the Project Design Team identified in the Right of Way (ROW) Report a total of 98 sites likely to be affected by involuntary resettlement caused by the proposed Project. Those sites falls within the three package areas, namely:

- Package 1: Wastewater Network in East Zarqa Zone
- Package 2: Wastewater Network in West Zone - Zarqa
- Package 3: Wastewater Network in West Zone - Russiefah

Subject to the revision of the ROW Report by the RAP study team, and in coordination with the Design Team, minimization of involuntary resettlement cases succeeded in reducing the number of plots subject to land acquisition to four plots, and the plots subject to ROW to 72.

The sections below discuss the assessment of resettlement impacts expected to be caused by the Project land acquisition and ROW, in addition to the efforts to minimize resettlement impacts and its results.

5.3.1 Land Acquisition Cases

5.3.1.1 Land Acquisition Sites

The study found that two plots have to be acquired in East Zarqa, one in West Zarqa, and one in Russiefah.

The plots subject to land acquisition by the proposed Project are listed in **Table 1**. This table also presents to the total plot area, dimensions, and the area suggested to be acquisitioned from each plot.

The four plots subject to land acquisition were surveyed by the RAP team which showed that three sites are vacant of any type of use up to the date of the survey (August 2011), and one plot in Russiefah was found to be partially residential land having the targeted parcel within this plot vacant of any use.

The total calculated area of the four plots is 17,414 square meters, and the proposed area for acquisition is 4,772 square meters. Three plots (cases 41, 74 and 94) are suggested to be partially acquisitioned (**Table 1**).

5.3.1.2 Impacts of Land Acquisition on PAP's

5.3.1.2.1 Impacts of Land Acquisition on Property/Land Owners & Squatters

Based on current findings of the survey of identified and consulted PAP owners of the properties targeted by the proposed project for acquisition, it was found that:

- Case number 27 (Plot number 7684, East Zarqa): the plot was surveyed by the RAP team and the owner was identified but was not consulted during RAP preparation phase due to absence of their contact details. The plot was vacant of any use at the time of the survey.
- Case number 41 (Plot number 1874, East Zarqa): the plot was surveyed by the RAP team however the owner could not be identified at the time of the survey, and as such have not been consulted during RAP preparation phase due to the shortage of information about the plot ownership and/or due to the consultant's inability to establish communication with the respective PAPs. The plot was vacant of any use at the time of the survey. During the revision of the Draft RAP the names owners of the plot were identified (5 males) but still the respective affected PAP (owner of the affect parcel) is not determined.
- Case number 74 (Plot number 1607, West Zarqa): this plot is owned by six brothers (all males) and the consultant interviewed their representative who mentioned that they accept the Project acquisition of their plots/prosperities if they are compensated for the plot in full for fair value. They provided their estimation of the value of the land

which was found by the consultant to be generally within acceptable limits at the time of interview. The plot was vacant of any use at the time of the survey.

- Case number 94 (Plot number 32, Al Russiefah): Partially residential land owned by 21 people (4 female and 17 male PAP's). Parcelization information are needed to confirm the specific parcel subject to acquisition and accordingly the respective PAP. However, according to the information available from PAP's consultation, the respective PAP to this case is most likely PAP with reference number 159 (Female). The consulted PAP requested acquisition of the whole plot and refused partial acquisition.

5.3.1.2.2 Impacts of Land Acquisition on Tenants and Users

All plots proposed for acquisition by the project are vacant of any use at the time of the survey, except to plot number 94 which partially residential land. There are no tenants or users to the date of surveys completion (Mid august 2011).

Table 1: The plots subject for land acquisition by the proposed Project

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number		Village		Land Basin		Neighborhood		Plot No.	Land Used	Plot Area (sq.m)	Acquisition area	DLS Reg. No.	Survey Status by RAP Team
			Start	End	Name	No.	Name	No.	Name	No.						
27	East Zarqa	EZ-BATRAWI	MH113	MH114	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7684	Vacant land	737.97	Area for ACQ =737 sq.m (all the plot area)	973064	Surveyed
41	East Zarqa	EZ-BATRAWI	MH93	MH94	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	1874	Vacant land	5960	Area for ACQ = 1500 sq.m of 5960 sq.m	Undefined	Surveyed
74	West Zarqa	WZ-D9	MHEX/0	MH03/0	Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	1607	Vacant land	3200	Area for ACQ = 2310 sq.m of 3200 sq.m	973291	Surveyed
94	Al Russiefah	WR-A1-7a	MH02	MH04	Jriba	388	Um Jeea'ah	12	Neighborhoods Table	0	32	Partially residential land, the targeted parcel for acquisition is vacant	7516	Area for AQ = 225 sq.m of 7516 sq.m	973357	Surveyed

5.3.2 ROW Resettlement Cases

5.3.2.1 ROW Resettlement Sites

A total of 72 sites were found to be affected by resettlement actions caused by obtaining ROW for the proposed Project across privately and governmentally owned sites. The distribution of ROW cases to the three package areas shows that there are 45 cases in East Zarqa, 21 cases in West Zarqa and 6 cases in Russiefah.

Eight plots are governmentally owned which include a plot in West Zarqa (owned by Zarqa Municipality) being currently used as park leased to an investor for operating it, in addition to plots owned by the Ministry of Education, by the Public Security Department, and Housing and Development Corporation. Nine plots are currently used by the owners for residence and 48 plots are vacant of any use up to the date of the completion of the surveys. There are also six plots that are not yet surveyed since they were identified for ROW after the production of the draft RAP and one plot could not be surveyed due to lack of information on plot information from DLS.

The distribution of numbers of plots subject to ROW impacts by the proposed Project in the three package areas based on type of land use is presented in **Table 2**.

Table 2: Distribution of numbers of plots subject to ROW impacts by the proposed Project in the three package areas based on type of plot use

Package Area	Land Use (Current)	No. of plots
East Zarqa	Vacant	35
	Residential	1
	Government	4
	Unknown	5
West Zarqa	Vacant	8
	Residential	8
	Government	3
	Unknown	2
Russiefah	Vacant	5
	Residential	0
	Government	1
	Unknown	0

The plots subject to ROW causing resettlement impacts by the proposed Project are listed in **Table 3**.

Table 3: The plots subject to ROW causing resettlement impacts by the proposed Project

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number				Village		Land Basin		Neighborhood		Plot Number	Plot Reg. No.	Land Used	Plot Area (sq.m)	Plot dimensions (length * Width in meters)	ROW length (m)	ROW distance from the plot boundary (m) *	Depth to Invert (m)	Plot Survey Status by RAP Team
			First Line Start	First Line End	Second Line Start	Second Line End	Name	No.	Name	No.	Name	No.									
1	East Zarqa	EZ-B24	MH02	MH03/0			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	3344	972991	Vacant land	874	36 * 25	35	2.5	3 - 3.5	Surveyed
2	East Zarqa	EZ-B24	MH02	MH03/0			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	5614	972995	Residential Land	837	36 * 25	35	2.5	4 - 3.5	Surveyed
3	East Zarqa	EZ-B16-12	MH05	MH06	MH07	MH08	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9577	973002	Vacant land	503	18 * 28	18	1.5	3.5 - 4.5	Surveyed
5	East Zarqa	EZ-B16-12	MH05	MH06	MH07	MH08	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9558	973009	Vacant land	512	20 * 28	20	1	1.8 - 4.5	Surveyed
6	East Zarqa	EZ-B16	MH65	MH67	MH68	MH69	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9505	973012	Vacant land	500	21 * 23	23	1	4 - 7	Surveyed
7	East Zarqa	EZ-B16	MH65	MH67	MH68	MH69	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9486	973016	Vacant land	501	21 * 24	24	2	2 - 3	Surveyed
8	East Zarqa	EZ-B16	MH65	MH67	MH68	MH69	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9485	973019	Vacant land	503	21 * 24	24	2	2 - 3	Surveyed
9	East Zarqa	EZ-B16	MH62	MH64/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7082	973021	Vacant land	509.74	25.5 * 20	20	1.4	3 - 3.5	Surveyed
10	East Zarqa	EZ-B16	MH62	MH64/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7073	973023	Vacant land	509.97	25.5 * 20	20	1.4	3.5 - 4	Surveyed
11	East Zarqa	EZ-B16	MH62	MH64/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7056	973030	Vacant land	499.53	24 - 21	21	2.4	3 - 4	Surveyed
12	East Zarqa	EZ-B16	MH54/0	MH56/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	6347	973036	Vacant land	545.55	22 * 25	27	2	2 - 3	Surveyed
13	East Zarqa	EZ-B16	MH58	MH59			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	3763	973033	Vacant land	534		45	1 - 2.4	3 - 7	Surveyed
14	East Zarqa	EZ-B16	MH54/0	MH56/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	6343	973039	Vacant land	500	22 * 25	27	2	2 - 3	Surveyed
16	East Zarqa	EZ-B11-4-1	MH01	MH02			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7343	973041	Vacant land	530.18	23 * 24	23	1	1.8 - 2	Surveyed
17	East Zarqa	EZ-B11-4-1	MH01	MH02			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7344	Undefined	Vacant land	503.36	22 * 23	23	1	2.7 - 3.5	Surveyed
18	East Zarqa	EZ-B11-4-1	MH01	MH02			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7345	973044	Vacant land	517.39	25 * 22	25	1	3.5 - 4.5	Surveyed
19	East Zarqa	EZ-B11-3	MH01	MH02	MH05	MH06	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7316	973047	Vacant land	504.88	21.5 * 23.5	23	1	1.8 - 2.5	Surveyed
20	East Zarqa	EZ-B11-3	MH01	MH02	MH05	MH06	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7315	973048	Vacant land	508.1	21.5 * 23.5	23	1	2.5 - 3.5	Surveyed

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number				Village		Land Basin		Neighborhood		Plot Number	Plot Reg. No.	Land Used	Plot Area (sq.m)	Plot dimensions (length * Width in meters)	ROW length (m)	ROW distance from the plot boundary (m) *	Depth to Invert (m)	Plot Survey Status by RAP Team
			First Line Start	First Line End	Second Line Start	Second Line End	Name	No.	Name	No.	Name	No.									
21	East Zarqa	EZ-B11-3	MH01	MH02	MH05	MH06	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	8553	973049	Vacant land	520.78	26 * 20	26	1.8	4.3 - 5.5	Surveyed
22	East Zarqa	EZ-B11-3	MH01	MH02	MH05	MH06	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	8554	973051	Vacant land	600.9	30 * 20	30	1.8	3 - 4.3	Surveyed
23	East Zarqa	EZ-BATRAWI	MH122	MH125	MH126	MH127	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7226	973053	Vacant land	498.2	24 * 40	24	1.8	1.8 - 4.2	Surveyed
24	East Zarqa	EZ-BATRAWI	MH122	MH125	MH126	MH127	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7241	973056	Vacant land	499.98	20 * 25	20	2.9	4.2 - 6.5	Surveyed
25	East Zarqa	EZ-BATRAWI	MH122	MH125	MH126	MH127	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7246	973058	Vacant land	589.43	18 * 24	24	1	4.2 - 4.5	Surveyed
26	East Zarqa	EZ-BATRAWI	MH122	MH125	MH126	MH127	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	10503	973061	Vacant land	472	22 * 22	22	1	4 - 4.8	Surveyed
28	East Zarqa	EZ-BATRAWI	MH113	MH114			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7685	973066	Vacant land	642	25 * 33	25	2.1	3 - 5.5	Surveyed
30	East Zarqa	EZ-B3	MH50/0	MH01			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	7389	973069	Vacant land	1743.02		30	1	4.2 - 5	Surveyed
31	East Zarqa	EZ-BATRAWI	MH29	MH31			Al Batrawi	355	Hajwa	3	Neighborhoods Table	0	297	Undefined	Vacant land	7197		61	2	3 - 3.2	Surveyed
32	East Zarqa	EZ-BATRAWI	MH29	MH31			Al Batrawi	355	Hajwa	3	Neighborhoods Table	0	84	973072	Vacant land	2710		18	1	3 - 3.5	Surveyed
33	East Zarqa	EZ-BATRAWI	MH29	MH31			Al Batrawi	355	Hajwa	3	Neighborhoods Table	0	83	973074	Vacant land	1727		20	1	3.5 - 3.8	Surveyed
99	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	11260		Vacant land		26 * 27	26	2.8	1.8 - 2	Surveyed
100	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	11259		Vacant land		20 * 27	20	1	1.8 - 2	Surveyed
101	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	11258		Vacant land		26 * 32	26	1.5	1.8 - 2	Surveyed
102	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	11257		Vacant land		20 * 32	20	2	1.8 - 2	Surveyed
103	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	11256		Vacant land		19 * 40	19	2	1.8 - 2	Surveyed
104	East Zarqa	EZ-B21	MH08/0	MH12/0			Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	10688		Vacant land		27 * 17	27	1.5	1.8 - 2	Surveyed
37	East Zarqa	EZ-C-1	MH03/0	MH07			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	6094	973077	Government land	6643.67		68	2	1.5 - 3	Surveyed
38	East Zarqa	EZ-C1-1	MH10	MH17			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	6071	973078	Government land	2490.85		112	2	1.8 - 8	Surveyed
39	East Zarqa	EZ-C1-3	MH01	MH02			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	6135	973079	Government land	516.76		23	2	2 - 2.2	Surveyed

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number				Village		Land Basin		Neighborhood		Plot Number	Plot Reg. No.	Land Used	Plot Area (sq.m)	Plot dimensions (length * Width in meters)	ROW length (m)	ROW distance from the plot boundary (m) *	Depth to Invert (m)	Plot Survey Status by RAP Team
			First Line Start	First Line End	Second Line Start	Second Line End	Name	No.	Name	No.	Name	No.									
40	East Zarqa	EZ-C1-4	MH20/0	MH01			Al Batrawi	355	Berket Barkh	7	Neighborhoods Table	0	6129	973080	Government land	312.2		22	2	1.7 - 2	Surveyed
43	West Zarqa	WZ-A1-1	MH03/0	MH05			Al Batrawi	355	Fajerat Shabieb	6	Abu Baker Es Sedieek	1	701	973083	Government land	15321.88		105	2	1.8 - 4.3	Surveyed
44	West Zarqa	WZ-A1-1	MH10/0	MH03/0			Al Batrawi	355	Fajerat Shabieb	6	Abu Baker Es Sedieek	1	701	973083	Government land			126	2	2 - 5.7	Surveyed
105	West Zarqa	WZ-A3	MH01	MH03			Ottal Ez Zarqa and Ar Russiefah	373	Az Zawahreh	11	Neighborhoods Table	0	7232		Vacant land			20	2	1.8 - 5.5	Surveyed
106	West Zarqa	WZ-A3	MH01	MH03			Ottal Ez Zarqa and Ar Russiefah	373	Az Zawahreh	11	Neighborhoods Table	0	7234		Vacant land			35	1	2 - 3	Surveyed
107	West Zarqa	WZ-C4	MH08	MH10			Ottal Ez Zarqa and Ar Russiefah	373	Az Zawahreh	10	Neighborhoods Table	0	643		Vacant land			45	1.5	3 - 6	Surveyed
108	West Zarqa	WZ-C7-3	MH07	MH10			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	8	Neighborhoods Table	0	579		Residential land		33.5 * 28	28	2.5	2 - 5	Surveyed
56	West Zarqa	WZ-C7	MH01/0	MH03/0			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	3680	973233	Residential land	1083	24.4 * 39	29	1.6	4 - 5	Surveyed
109	West Zarqa	WZ-C7	MH01/0	MH03/0			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	3686		Residential land		29.4 * 60	60	2.5	3 - 4	Surveyed
110	West Zarqa	WZ-C7	MH04	MH06/0			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	3670		Vacant land						Surveyed
59	West Zarqa	WZ-B2-8	MH30/0	MH02/0			Jriba	388	Akho Barsh	6	Neighborhoods Table	0	794	973242	Vacant land	639.88	21 * 32.2	21	1.4	2 - 3	Surveyed
60	West Zarqa	WZ-D2-2	MH05	MH09			Ottal Ez Zarqa and Ar Russiefah	373	Al Abiyad	9	Neighborhoods Table	0	12	973246	Vacant land	24049		124	2	1.7 - 5	Surveyed
61	West Zarqa	WZ-D2-2	MH05/0	MH05			X:251291.3	Y:161992.6			Undefined		unknown					207	1	1.7 - 4	Was not surveyed by RAP team due to the shortage in plot location information
67	West Zarqa	WZ-D4-6	MH18	MH01			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	868	973281	Residential land	620.4	21 * 25	21	1.5	2 - 3	Surveyed
69	West Zarqa	WZ-D4-6	MH18	MH01			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	869	973282	Commercial Land	646.54	24 * 28	24	1.5	2 - 3.5	Surveyed
111	West Zarqa	WZ-D4-4	MH14/0	MH02			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	950		Residential land			67	1 - 2	1.8 - 2.2	Surveyed
71	West Zarqa	WZ-D4-4	MH14/0	MH02			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	942	973287	Residential land	248.67	15.4 * 21	21	2	4.5 - 5	Surveyed

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number				Village		Land Basin		Neighborhood		Plot Number	Plot Reg. No.	Land Used	Plot Area (sq.m)	Plot dimensions (length * Width in meters)	ROW length (m)	ROW distance from the plot boundary (m) *	Depth to Invert (m)	Plot Survey Status by RAP Team
			First Line Start	First Line End	Second Line Start	Second Line End	Name	No.	Name	No.	Name	No.									
72	West Zarqa	WZ-D7	MH05	MH06			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	1567	973290	Residential land	300	13 * 18	13	2	2.8 - 3	Surveyed
112	West Zarqa	WZ-B2	MHEX/0	MH01/0			Jriba	388	Um Sarah	4	Neighborhoods Table	0	589		Vacant land	530	20.7 * 29	29	2	2 - 2.5	
77	West Zarqa	WZ-C4	MH03	MH08			Ottal Ez Zarqa and Ar Russiefah	373	Um Bayyadah	10	Neighborhoods Table	0	692		Government land	22949		160		1.7 - 4	Surveyed
78	West Zarqa	WZ-C4	MH03	MH08			Ottal Ez Zarqa and Ar Russiefah	373	Um Bayyadah	10	Neighborhoods Table	0	unknown		Residential land						Surveyed
83	Al Russiefah	WR-B10	MH09	MH11/0			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	3884	973335	Government land	7713.83	65 * 55	65	2.1	2.2 - 3.4	Surveyed
84	Al Russiefah	WR-B1	MHEX/0	MH01/0			Ottal Ez Zarqa and Ar Russiefah	384	Al Falah	3	Neighborhoods Table	0	4259	73336	Vacant land	1518.54		41	1 - 2.1	2.5 - 3	Surveyed
88	Al Russiefah	WR-A13-6	MH21/0	MH03			Jriba	388	Jawfat Thieab	11	Neighborhoods Table	0	147	973351	Vacant land	764.82		24	1 - 1.5	2.5 - 4.2	Surveyed
89	Al Russiefah	WR-A2-1	MH01	MH02			Jriba	388	Furoa Ez Zaiet	14	Neighborhoods Table	0	37	973352	Vacant land	3861	101 * 35	30	2	1.8 - 2	Surveyed
90	Al Russiefah	WR-A3-3	MH18/0	MH02			Jriba	388	Furoa Ar Ratem	13	Neighborhoods Table	0	80	973353	Vacant land	4068		91	2	2 - 3	Surveyed
95	East Zarqa	EZ-B25					Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	3372								Surveyed
113	East Zarqa	EZ-B16-12	MH05	MH06	MH07	MH08	Al Batrawi	355	Al Batrawi Al Janoubee	4	Neighborhoods Table	0	9579		Vacant land	512	18 * 28	18	1.5	3 - 3.5	Was not surveyed by RAP team since it was identified as impact minimization after the completion of the draft report
114	East Zarqa	EZ-A16-3	MH19/0	MH02/0			Al-Hashimiyah	365	Asaiah	8	Neighborhoods Table		314				83 * 98	83	1.3	1.8 - 3.5	Was not surveyed by RAP team since it was identified as impact minimization after the completion of the draft report
115	East Zarqa	EZ-A16-3	MH05	MH08			Al-Hashimiyah	365	Asaiah	8	Neighborhoods Table		344				118 * 82	118	2.8	2.8 - 4	Was not surveyed RAP team since it was identified as impact minimization after the completion of the draft report
116	East Zarqa	EZ-A16	MH02	MH04			Al-Hashimiyah	365	Asaiah	8	Neighborhoods Table		284				95 * 100	95	2	4 - 6.5	Was not surveyed RAP team since it was identified as impact minimization after

Case Ref. No.	Package Area	Conveyor Ref. No.	Location according to Manhole Number				Village		Land Basin		Neighborhood		Plot Number	Plot Reg. No.	Land Used	Plot Area (sq.m)	Plot dimensions (length * Width in meters)	ROW length (m)	ROW distance from the plot boundary (m) *	Depth to Invert (m)	Plot Survey Status by RAP Team
			First Line Start	First Line End	Second Line Start	Second Line End	Name	No.	Name	No.	Name	No.									
																					the completion of the draft report
117	East Zarqa	EZ-A07	MH06	MH07			Al-Hashimyah	365	Asaiah	8	Neighborhoods Table		195				23 * 37	23	2	2 - 3	Was not surveyed RAP team since it was identified as impact minimization after the completion of the draft report
118	West Zarqa	WZ-A1	MH10/0	MH13			Al Batrawi	355	Fajerat Shabieb	6	Abu Baker Es Sedieek		7019					143	2.5	1.5 - 6	Was not surveyed RAP team since it was identified as impact minimization after the completion of the draft report
119	Al Russiefah	WR-A13-6					Jriba	388	Jawfat Thieab	11	Neighborhoods Table		148		Vacant land			26	1.5	3 - 4.2	Was not surveyed RAP team since it was identified as impact minimization after the completion of the draft report

* **Note:** the ROW width was identified in the Project ROW Report for all ROW cases to be three meters. However, it should be noted that this ROW is not necessarily from the border of the plot. Their for the distance of the ROW start point from the plot border is provided in this column, and as such the impact is assessed to be for the ROW width plus the distance of the ROW from the plot border.

5.3.2.2 Impacts of ROW on PAP's

A total of 72 cases have been identified as unavoidable from obtaining ROW within it. The impacts on each of the identified plots are described in **Table 4**. The spectrum of impacts generally includes:

- Loss of assets (removal of trees, retaining and fencing walls, septic tanks and cesspits, paved corridors and stairs). Such loss of assets is understood to cause direct economic loss equal to the cost equivalent to its restoration, in addition it has indirect economic loss for the temporary loss of productivity or use like the case of the production cost of trees for the temporary (before providing equivalent or rehabilitating) of trees, or for not using one or more of the facilities like the septic tank.
- loss or limitation of access to the construction areas within the plot during the construction phase;
- Risks to resident's health and safety mainly by the use of machineries, excavation trenches, materials and waste piles, noise, dusting, etc.

It should be noted that these impacts affect all family members who shall be considered as PAP's of the Project. However, for compensation purposes, only the owner of the property is eligible to compensation.

With regard to the gender distribution of the ROW PAP's owners of affected plots, and based on the information available to the date preparing this report, the PAP's identified include 50 males, 11 females. The undefined PAP's owners of affected plot is 17.

Table 4: Impacts by ROW

Ref. No.	Package Area	Plot No.	Estimation Remarks
1	East Zarqa	3344	Sewer Length 35 m, Distance from the plot boundary 2.5 m, Depth to invert from 3 m to 3.5 m. There are another wastewater system crossing the plot form the other side of the plot therefore the proposed project will cause reduction in the land available for construction and cause reduction in the plot value . there is the single palm tree within the ROW.
2	East Zarqa	5614	Sewer Length 35 m, Distance from the plot boundary 2.5 m, Depth to invert from 3 m to 3.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. There are another wastewater system crossing the plot form the other side of the plot therefore the proposed project will cause reduction in the land available for construction and cause reduction in the plot value. There are retaining wall on a distance of about 1.5 meters from the house which can possibly be affected.
3	East Zarqa	9577	Sewer Length 18 m, Distance from the plot boundary 1.5 m, Depth to invert from 3.5 m to 4.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over about one third of the plot, (plot area affected = 18 m in length X 4 m in width = 72 sq meters).
5	East Zarqa	9558	Sewer Length 20 m, Distance from the plot boundary 1.0 m, Depth to invert from 1.8 m to 4.5 m. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m).
6	East Zarqa	9505	Sewer Length 23 m, Distance from the plot boundary 1.0 m, Depth to invert from 4.0 m to 7.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 92 sq.m (23 m X 4 m),
7	East Zarqa	9486	Sewer Length 24 m, Distance from the plot boundary 2.0 m, Depth to invert from 3.0 m to 3.2 m. The plot is vaccant but the ROW will enforce restrictions over an area of about 72 sq.m (24 m X 3 m).
8	East Zarqa	9485	Sewer Length 24 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 3.0 m. The plot is vaccant but the ROW will enforce restrictions over an area of about 72 sq.m (24 m X 3 m)
9	East Zarqa	7082	Sewer Length 20 m, Distance from the plot boundary 1.4 m, Depth to invert from 3.5 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m),
10	East Zarqa	7073	Sewer Length 20 m, Distance from the plot boundary 1.4 m, Depth to invert from 4.0 m to 3.5 m. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m),

Ref.	Package	Plot No.	Estimation Remarks
11	East Zarqa	7056	Sewer Length 21 m, Distance from the plot boundary 2.4 m, Depth to invert from 3.0 m to 4.0 m. The plot is vacant but the ROW will enforce restrictions over an area of about 84 sq.m (21 m X 4 m),
12	East Zarqa	6347	Sewer Length 27 m, Distance from the plot boundary 2.0 m, Depth to invert from 3.0 m to 2.5 m. The plot is vacant but the ROW will enforce restrictions over an area of about 81 sq.m (27 m X3 m)
13	East Zarqa	3763	Sewer Length 45 m, Distance from the plot boundary from 1 m to 2.4 m, Depth to invert from 7.0 m to 3.0 m Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 81 sq.m (45 m X4 m)
14	East Zarqa	6343	Sewer Length 20 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X3 m).
16	East Zarqa	7343	Sewer Length 23 m, Distance from the plot boundary 1.0 m, Depth to invert from 2.0 m to 1.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 69 sq.m (23 m X3 m),
17	East Zarqa	7344	Sewer Length 23 m, Distance from the plot boundary 1.0 m, Depth to invert from 3.5 m to 2.7 m . Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 69 sq.m (23 m X3 m)
18	East Zarqa	7345	Sewer Length 25 m, Distance from the plot boundary 1.0 m, Depth to invert from 4.5 m to 3.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 75 sq.m (25 m X3 m)
19	East Zarqa	7316	Sewer Length 23 m, Distance from the plot boundary 1.0 m, Depth to invert from 2.5 m to 1.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 69 sq.m (23 m X3 m),
20	East Zarqa	7315	Sewer Length 23 m, Distance from the plot boundary 1.0 m, Depth to invert from 3.5 m to 2.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 81 sq.m (23 m X3 m)

Ref.	Package	Plot No.	Estimation Remarks
21	East Zarqa	8553	Sewer Length 26 m, Distance from the plot boundary 1.8 m, Depth to invert from 4.3 m to 5.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 78 sq.m (26 m X3 m)
22	East Zarqa	8554	Sewer Length 30 m, Distance from the plot boundary 1.8 m, Depth to invert from 3.0 m to 4.3 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 81 sq.m (30 m X3 m)
23	East Zarqa	7226	Sewer Length 24 m, Distance from the plot boundary 1.8 m, Depth to invert from 4.2 m to 1.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 72 sq.m (24 m X3 m)
24	East Zarqa	7241	Sewer Length 25 m, Distance from the plot boundary 2.9 m, Depth to invert from 4.2 m to 6.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 75 sq.m (25 m X4.5 m)
25	East Zarqa	7246	Sewer Length 18 m, Distance from the plot boundary 1.0 m, Depth to invert from 4.5 m to 4.2 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 75 sq.m (18 m X3 m).
26	East Zarqa	10503	Sewer Length 22 m, Distance from the plot boundary 1.0 m, Depth to invert from 4.0 m to 4.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 75 sq.m (22 m X3 m)
28	East Zarqa	7685	Sewer Length 25 m, Distance from the plot boundary 2.1 m, Depth to invert from 5.5 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 75 sq.m (25 m X 3.5 m)
30	East Zarqa	7389	Sewer Length 30 m, Distance from the plot boundary 1.0 m, Depth to invert from 5.0 m to 4.2 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 90 sq.m (30 m X 3 m)
31	East Zarqa	297	Sewer Length 61 m, Distance from the plot boundary 2.0 m, Depth to invert from 3.2 m to 3.0 m . Trench width 105 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 123 sq.m (61 m X 3 m),

Ref.	Package	Plot No.	Estimation Remarks
32	East Zarqa	84	Sewer Length 18 m, Distance from the plot boundary 1.0 m, Depth to invert from 3.5 m to 3.0 m. Trench width 105 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 54 sq.m (18 m X 3 m).
33	East Zarqa	83	Sewer Length 20 m, Distance from the plot boundary 1.0 m, Depth to invert from 3.8 m to 3.5 m. Trench width 105 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m)
99	East Zarqa	11260	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 26 m, Distance from the plot boundary 2.8 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 117 sq.m (26 m X 4.5 m)
100	East Zarqa	11259	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 20 m, Distance from the plot boundary 1.0 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m)
101	East Zarqa	11258	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 26 m, Distance from the plot boundary 1.5 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 78 sq.m (26 m X 3 m), therefor the compensation shall be as if this area is to be acqusitioned multiplied by the land price by meter which is about JOD 70.
102	East Zarqa	11257	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 20 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m),
103	East Zarqa	11256	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 19 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 57 sq.m (19 m X 3 m)
104	East Zarqa	10688	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 27 m, Distance from the plot boundary 1.5 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 81 sq.m (27 m X 3 m)

Ref.	Package	Plot No.	Estimation Remarks
37	East Zarqa	6094	Sewer Length 68 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.5 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Public park, leased by the Zarqa Municipality. Pending, expecting reply from the municipality. Compensation is assumed to be not applicable since this is a governmental land
38	East Zarqa	6071	Sewer Length 112 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 1.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Governmental land owned by Housing and Urban Development Corporation allocated for sale. it should be noted that five to seven manholes are planned to be constructed within this plot and accordingly this will cause substantial loss of value and require acquisition instead of ROW, however, compensation is assumed to be not applicable since this is a governmental land
39	East Zarqa	6135	Sewer Length 23 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 2.2 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Governmental land owned by Housing and Urban Development Corporation allocated for sale. Compensation is assumed to be not applicable since this is a governmental land
40	East Zarqa	6129	Sewer Length 22 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.7 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Governmental land owned by Housing and Urban Development Corporation allocated for sale. Compensation is assumed to be not applicable since this is a governmental land
43	West Zarqa	701	Sewer Length 105 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 4.3 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Governmental land, pending, expecting response from the owner (Public Security Department). Compensation is assumed to be not applicable since this is a governmental land
44	West Zarqa	701	Sewer Length 126 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 5.7 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Governmental land, pending, expecting response from the owner (Public Security Department). Compensation is assumed to be not applicable since this is a governmental land
105	West Zarqa	7232	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 20 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 5.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 60 sq.m (20 m X 3 m)
106	West Zarqa	7234	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 35 m, Distance from the plot boundary 1.0 m, Depth to invert from 2.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of

Ref.	Package	Plot No.	Estimation Remarks
			no obstacles. the ROW will enforce restrictions over an area of about 105 sq.m (35 m X 3 m)
107	West Zarqa	643	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 45 m, Distance from the plot boundary 1.5 m, Depth to invert from 6.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 135 sq.m (45 m X 3 m)
108	West Zarqa	579	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 28 m, Distance from the plot boundary 2.5 m, Depth to invert from 2.0 m to 5.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 112 sq.m (28 m X 4 m)
56	West Zarqa	3680	Sewer Length 29 m, Distance from the plot boundary 1.6 m, Depth to invert from 4.0 m to 5.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The impact on the plot and PAP's is not clear since the line have been shifted by moving it from plot 3687 to 3686, since there are two owners (two parcels) within the plot then the new design of the line is deterministic to the impact magnitude. the actual area of the affected parcel within this plot is about 500 meters, accordingly the ROW will restrict over an area of about 87 meters (29 m X 3 m)
109	West Zarqa	3686	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 60 m, Distance from the plot boundary 2.5 m, Depth to invert from 3.0 m to 4.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 240 sq.m (60 m X 4 m)
110	West Zarqa	3670	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 60 m, Distance from the plot boundary 1.4 m, Depth to invert from 4.2 m to 6.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 112 sq.m (60 m X 4 m)
59	West Zarqa	794	Sewer Length 21 m, Distance from the plot boundary 1.4 m, Depth to invert from 3.0 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 63 sq.m (21 m X 3 m)
60	West Zarqa	12	Sewer Length 124 m, Distance from the plot boundary 2 m, Depth to invert from 1.7 m to 5.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vacant but the ROW will enforce restrictions over an area of about 372 sq.m (124 m X 3 m)

Ref.	Package	Plot No.	Estimation Remarks
61	West Zarqa	unknown	Sewer Length 207 m, Distance from the plot boundary 1 m, Depth to invert from 1.7 m to 4.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the plot is not parcilized yet. Up to date it is assumed that there will be no impact that require compensation (probably there will be new road). the ROW will enforce restrictions over an area of about 621 sq.m (207 m X 3 m).
67	West Zarqa	868	Sewer Length 21 m, Distance from the plot boundary 1.5 m, Depth to invert from 2.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The impact will include the removal of a septic tank which is surrounded by a wall of blocks (3 m + 4 meters X 5 blocks in hight) and will cross the wall surrounding the plot from the line entrance to the plot (3 meters width X 0.5 meter of cement and 1.5 meters of blocks) and from the line exit from the plot (3 meters width X 0.5 meter of cement and 1.5 meters of blocks) . the ROW will enforce restrictions over an area of about 63 sq.m (21 m X 3 m)
69	West Zarqa	869	Sewer Length 24 m, Distance from the plot boundary 1.5 m, Depth to invert from 3.5 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 72 sq.m (24 m X 3 m)
111	West Zarqa	950	The sewer crossing this plot constitute two sections (total sewer length is 67 m): (1) Sewer Length 18 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 2.2 m, (2) Sewer Length 49 m, Distance from the plot boundary 1.0 m, Depth to invert from 1.8 m to 5.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The ROW will enforce restrictions over an area of about 264 sq.m (67 m X 3 m)
71	West Zarqa	942	Sewer Length 21 m, Distance from the plot boundary 2.0 m, Depth to invert from 5.0 m to 4.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the plot will be affected from two sides by the ROW. The impact include removing six olive trees (4 years each), on kina tree (3 years) and one bery tree (4 years). Also there is a wall of blocks and cement (one meter each) which will be cut within an estimated length of 3 meters . The ROW will enforce restrictions over an area of about 66 sq.m (21 m X 3 m)
72	West Zarqa	1567	Sewer Length 13 m, Distance from the plot boundary 2.0 m, Depth to invert from 3.0 m to 2.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. Most of the sewer pass through a priavetly corridor between houses. Though fincnial compensation is assumed to be not nessessary since the use of this part of the plot is alread resticted, the area covered by the ROW is 39 sq.m. (13 m X 3 m)
112	West Zarqa	589	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 29 m, Distance from the plot boundary 2.0 m, Depth to invert from 5.0 m to 2.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 87 sq.m (29 m X 3 m)

Ref.	Package	Plot No.	Estimation Remarks
77	West Zarqa	692	Governmental land Owned by the Ministry of Education and planned for the construction of schools. Sewer Length 160 m, Depth to invert from 1.7 m to 4 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 540 sq.m (160 m X 3 m),
78	West Zarqa	unknown	parcilization information is lacking to determin which parcel will be affected since this plot consitute two parcels with one house constructed in each. Total Length 41 m. Depth to invert from 1.7 m to 4 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 123 sq.m (41 m X 3 m)
83	Al Russeifa	3884	Sewer Length 65 m, Distance from the plot boundary 2.1 m, Depth to invert from 2.2 m to 3.4 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 195 sq.m (65 m X 3 m),
84	Al Russeifa	4259	Sewer Length 41 m, Distance from the plot boundary from 1.0 m to 2.1 m, Depth to invert from 3.0 m to 2.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 123 sq.m (41 m X 3 m)
88	Al Russeifa	147	Sewer Length 24 m, Distance from the plot boundary from 1.0m to 1.5 m, Depth to invert from 2.5. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 72 sq.m (24 m X 3 m)
89	Al Russeifa	37	Sewer Length 30 m, Distance from the plot boundary 2.0 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 90 sq.m (30 m X 3 m), .
90	Al Russeifa	80	Sewer Length 91 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. The plot is vaccant but the ROW will enforce restrictions over an area of about 273 sq.m (91 m X 3 m)
95	East Zarqa	3372	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 13 m, Distance from the plot boundary 1.0 m, Depth to invert from 1.8 m to 2.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 39 sq.m (13 m X 3 m)
113	East Zarqa	9579	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 18 m, Distance from the plot boundary 1.5 m, Depth to invert from 3 m to 3.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 39 sq.m (18 m X 3 m)

Ref.	Package	Plot No.	Estimation Remarks
114	East Zarqa	314	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 83 m, Distance from the plot boundary 1.3 m, Depth to invert from 1.8 m to 3.5 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 249 sq.m (83 m X 3 m)
115	East Zarqa	344	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 118 m, Distance from the plot boundary 2.8 m, Depth to invert from 4. m to 2.8 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 472 sq.m (118 m X 4 m)
116	East Zarqa	284	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 95 m, Distance from the plot boundary 2.0 m, Depth to invert from 6.5 m to 4.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 195 sq.m (95 m X 3 m)
117	East Zarqa	195	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 23 m, Distance from the plot boundary 2.0 m, Depth to invert from 2.0 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 39 sq.m (23 m X 3 m)
118	West Zarqa	7019	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 143 m, Distance from the plot boundary 2.5 m, Depth to invert from 1.5 m to 6.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 572 sq.m (143 m X 4 m)
119	Al Russeifa	148	The plot was identified for ROW after the completion of the surveys, therefore it was not surveyed for assets valuation. Sewer Length 26 m, Distance from the plot boundary 1.5 m, Depth to invert from 4.2 m to 3.0 m. Trench width 75 cm, corridor width min 3 m in case of no obstacles. the ROW will enforce restrictions over an area of about 78 sq.m (26 m X 3 m)

5.3.3 Impacts on Businesses located within the Project Corridor

This section discusses the expected impacts on businesses located within the Project corridor which are assumed to be affected by the Project construction activities but are not expected to be directly affected by land acquisition or ROW such as the loss of property or damage caused to the assets. The Project Environmental and Social Impact Assessment Study, and the Project Environmental and Social Management Plan provide more elaborate discussion on this subject matter, and suggest related mitigation and monitoring measures.

It should be clearly understood that significant business impacts are not anticipated due to the implementation of the mitigation measures provided in the Project ESMP. If for some reason these measures fail and some businesses are affected, then these businesses can be eligible to make a claim for compensation through the RAP Grievance Procedure if they meet the respective eligibility criteria listed below.

The criteria by which a business would be eligible to make a claim for compensation through the Grievance Procedure are:

1. The effect on business already happened and belongs to one of the following categories:
 - i. Loss of income associate with the loss of access to respective business by the owner, employees and/or customers for a period exceeding one working day which consequently cause economical loss due to construction activities within the roads and close to these businesses without providing alternative safe and easy access;
 - ii. Noise and dust which can be of low impact to some of the business like the mechanical services and of significant impacts such as the case of the poultry farm which can cause a high percentage of poultry death and as such economical losses, impacts of high dusting levels on electronics shops, etc.; and/or
 - iii. Disruption of utilities which result in malfunction of refrigerators and other electronics in the supermarkets and shops, or result in cutting electricity for prolonged periods from such shops, disrupting internet connections and its impacts on internet café's, etc.
2. The effect on business is solely, directly and evidently caused by the Project as a result of one or more of the following reasons:
 - i. The ESMP suggested mitigation measures are implemented but are not effective enough to prevent or significantly reduce the impact;

- ii. The impact affecting the business was not identified in the ESIA and no mitigation measures are enforced in the area/section where the affected business is located; and/or
 - iii. The Contractor/Sub-contractor does not comply with the ESMP requirements and as such the mitigation measures are not implemented which creates stressors on the affected business.
3. The grievance is communicated by the owner of the business or his legal representative following the procedures discussed in 13 on Grievance Redress Mechanisms.

It is important to note that prolonged construction activities are likely to result in cumulative impacts of increased economic loss.

5.4 Alternatives considered to avoid or minimize resettlement during RAP preparation phase

Avoidance and minimization of possible project-caused involuntary resettlement is the first and foremost important priority in the preparation and implementation phases of the RAP. This section of the report discusses the measures applied by the Project Design and RAP Study teams, in addition to the achieved minimization results during the RAP preparation phase, and finally the suggested measures to be applied during the RAP implementation phase.

Efforts to minimize involuntary resettlement by the proposed project were started during the RAP preparation phase and shall be continued during the RAP implementation phase. Also, and in compliance with the World Bank Operational Policy on Involuntary Resettlement 4.12, the Project is required to take further steps in the implementation phase toward mitigating resettlement impacts on the livelihood of the affected population.

5.4.1 Efforts Made to Minimize Resettlement during RAP Preparation Phase

The initially identified 98 involuntary resettlement cases were surveyed by the RAP study team to assess avoidance and potential for impact minimization. Avoidance and minimization measures have been jointly discussed with the Project design team for 60 resettlement cases out of the identified 98 cases since those were found to have significant impact on respective PAPs, were initially identified by the RAP team as priority cases for revision by the design team, and/or have potential for mitigation.

Avoidance/minimization actions were identified for cases which can be avoided through revision of the prepared designs and as such reduce the impacts on (1) respective vulnerable surveyed PAPs, and (2) other affected plots whose owners could not yet be interviewed.

Whenever avoidance is not possible, the RAP Study team and the Design Team discussed measures effective for minimizing the involuntary resettlement impacts on PAPs for application in the final Project designs.

The minimization measures discussed and implemented include:

1. Considering and implementing ROW instead of land acquisition for cases which does not qualify for land acquisition and can be limited to ROW (E.g., following parcellization of plots into smaller parcels the involuntary resettlement impact may have a less negative impact on the respective PAPs);
2. Shifting the alignment to existing neighboring plot or planned road whenever such roads are identified within as acceptable and practical from engineering point of view, even if the construction cost will be higher;
3. Shifting the alignment to a neighboring plot whenever the impact on the alternative plot is significantly lower compared to the impact by the initially proposed alignment on the initially targeted plot(s);
4. Narrowing the ROW to its absolute width where practically possible to allow for the construction and future maintains of the system;
5. Considering and implementing the replacement of the cemented piping option with manholes every 50 meters (length) with steel pipes that does not need manholes to be constructed within the affected plot thus to meet the PAP's conditions for accepting ROW within their plots; and/or
6. Considering and implementing cancelation of the alignment section whenever the impact is severally significant on the PAP and the benefits from keeping the section is much lower compared to the expected negative impacts.

5.4.2 Resettlement avoidance/minimization results during the RAP preparation phase

As discussed above, a total of 60 resettlement cases have been redesigned for resettlement avoidance and minimization. Those were grouped and categorized into six groups based on the reasons driving the need for revision and minimization action. The group categories are as follow:

1. Plots undergoing revision by the design team due to the new parcellation by respective municipalities & Department of Land and Survey (DLS).
2. Cases and plots that can be avoided since there is either an existing or planned road within the wastewater system ROW.
3. Plots with insufficient information about the owner's identity.
4. Plots with engineering difficulties that can possibly cause severe impacts on the PAPs.
5. Plots with insufficient information about the owner contact information.
6. Plots affected and owned by governmental or municipal organizations.

In summary, the impact minimization efforts during RAP preparation superseded in avoiding the total of 22 plots out of the initially identified 98 cases. This includes avoiding 11 cases of land acquisition and 11 cases of ROW. In addition, to changing the ROW for 25 plots into new ones thus to avoided sever involuntary resettlement impacts by ROW stressors.

5.5 Requested Mechanisms to Minimize Resettlement during RAP Implementation Phase

Since a number of plots are undergoing parcellization by respective municipalities and DLS, and since the situation on the ground related to the establishment of new roads is changing, it is understood that new opportunities for minimizing resettlement during RAP implementation are expected to arise and should be taken advantage of. Therefore, the Project needs to maintain periodic updates of the information about the new roads constructed and planned construction, results of parcellization, etc., through establishing and maintaining strong cooperation and collaboration with the three respective municipalities in Zarqa and with DLS.

Also, the Project needs to, and should, re-visit the RAP and the Project design for each package immediately prior to launching construction activities to ensure the above information is taken into consideration.

The implementation phase of this project will need, in a number of occasions, to reduce the currently proposed ROW to be less than the standard set ROW width for sewer lines and trunk lines. This means that the ROW for some cases should be minimized to become below three meters whenever the 3-meter ROW width is not possible (like for example when the distance between the house foundations are on a distance less than three meters from the plot boundary, or when the trenching depth required is too deep and require the use of heavy machineries that cannot operate in a construction width of three meters) and avoidance is not applicable.

Applying trench-less technology and poly-ethylene pipes were recommended and encouraged in the bidding documents, and such technology sounds as a good alternative in cases like those discussed above).

The project needs to take into consideration that currently reported vacant plots could be constructed on in the period from now until the launching of the Project construction phase. It is imperative that ongoing consultation, communication and information exchange with the PAPs in the area is needed to be established, enhanced and maintained to ensure that PAPs take the proposed Project designs and layout into their consideration when they plan for construction in their own lands.

Constraints anticipated during RAP implementation phase include:

1. Lack of sufficient information about some targeted plots and thus respective PAPs since these plots are still under parcelization by related municipalities and DLS. This is anticipated to take some time which can affect the effectiveness and timely implementation of the RAP.
2. Lack of information about two plots including the plots numbers (official plot number), registration codes at DLS, owner's information, etc. This shortage of information does not allow for full compliance with the OP 4.12 and its procedures for public consultation, survey of respective PAPs, discussing alternatives and negotiating mitigation measures. Therefore, alternative measures are to be implemented following Jordanian legislations and procedures which include announcing the ROW or land acquisition intent in two newspapers. .

It is also important to note that hiring community liaison officer to maintain communication and consultation with the PAP's and other interest groups can be in the best interest of the Project thus to enhance the communication with those people on regular basis. This liaison person should be in full time all over the Project implementation cycle and it is suggested to have him/her as part of the environmental and social management team of the Project. This person is also understood to be responsible for gathering of monitoring data and to maintain record keeping of PAP's consultation, communication and monitoring findings and results.

6 RAP OBJECTIVES

The key objective of the land acquisition and resettlement program for the proposed project is to ensure that the proposed Project have net positive impact on PAP's socio-economic conditions and livelihood, and that PAP's by land acquisition and involuntary resettlement are able to improve or at least restore their incomes and standards of living after land acquisition/ resettlement. It aims to facilitate, support and control all involuntary resettlement cases identified under this project thus to be in full compliance with the World Bank OP 4.12 and applicable Jordanian Legislations.

The implementation objectives include:

1. Completion of the gathering of information about the plots subject to involuntary resettlement and respective PAP's socio-economic situation which could not be arranged during RAP preparation phase;
 - i. Identification of and consulting the Project Affected Persons (PAPs);
 - ii. Census of PAPs affected by the project acquisition of land, gathering information on their socio-economic character, identification and valuation of the project to-be-affected assets;
 - iii. Filling up consultation gaps with PAP's who are owners, squatters, tenants or users of the identified plots for land acquisition and ROW which could not be arranged during RAP preparation phase;
2. Implementing resettlement measures that are in compliance with the MCC policies, World Bank OP 4.12 and related national legislation;
3. Updating the RAP and its implementation schedule;
4. Implementing RAP monitoring and evaluation measures.

7 SOCIO-ECONOMIC CHARACTERISTICS

7.1 Socio-economic Characteristics of the Surveyed PAP's

As it is discussed above, the directly affected PAPs are the direct owners or the tenants or users of the property targeted by the proposed project for land acquisition or ROW. The indirectly affected PAPs are the families of the directly affected PAP who are living in the same property or are dependants on the PAP for their living.

The following discussion of the socio-economic characteristics of consulted PAP's is based on the findings of a field survey conducted in the period between July 1st and August 15th 2011 which covered 63 of the identified possible PAP's based on the draft ROW report provided by the Design Team to the RAP Study Team. The remaining 35 PAP's, who were identified at the beginning of the study to be directly affected by the project, were not surveyed since the study team could not contact establish communication with them.

The conducted survey covered all property owners, tenants and users farmers within the Corridor of Land Acquisition Impact who could be reached and contacted. The survey was conducted with the directly affected PAP for both male and female PAP's. In few cases the survey was conducted with representatives of the PAPs. The survey for ROW cases was arranged with the household head, regardless being male or female. The survey of businesses was all conducted with the businesses owners. More details on the survey methodology are provided in **Appendix 1**.

Some of the initially identified PAP's at the time of survey implementation are no longer considered as PAP's to this project since their respective plots were avoided during impacts minimization phase. Also, new PAP's were identified after the completion of the survey and as such are not considered part of the below analysis. Still, the characterization information presented below is considered representative to the PAP's study community.

7.1.1 Age and Gender

The survey found that the youngest directly affected PAP age is 24 years while the oldest is 92 years old. The distribution of the PAPs ages shows that the average age of PAP's is 49 years and its median is 45 years (**Figure 2**).

The total number of PAPs surveyed and completed the questioner form was 63, having 58 questioners statistically valid, while the total number of their families is 441 persons. 56 of the surveyed PAPs are males and seven were females forming 89% and 11% of the total surveyed PAP population respectively.

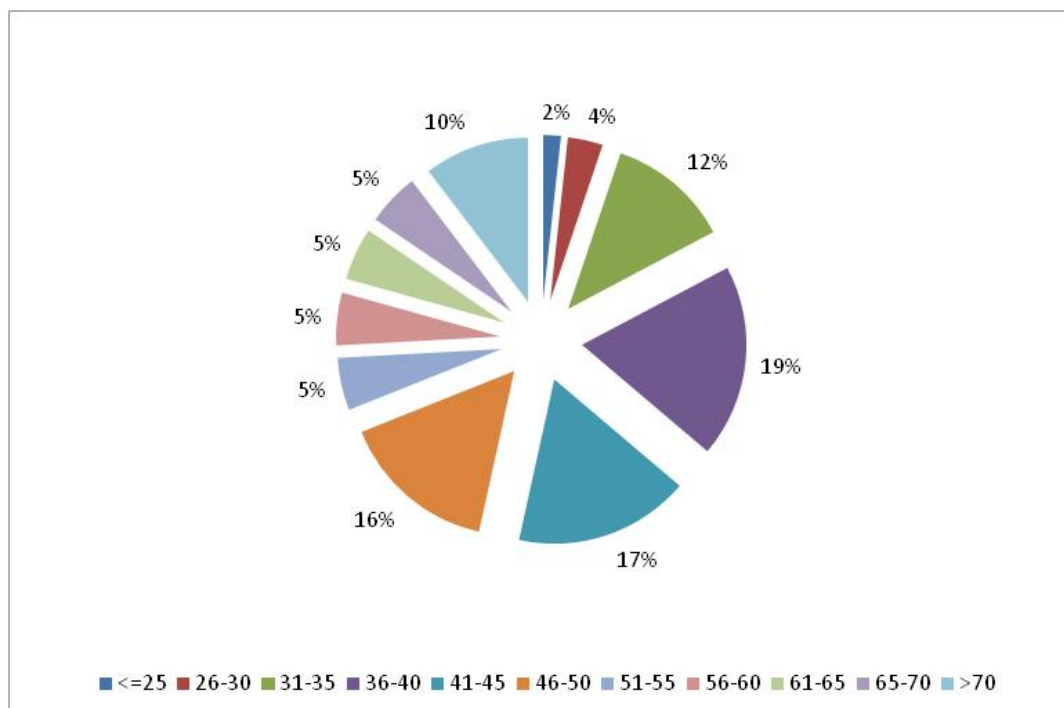


Figure 2: Age categories of the interviewed PAPs expected to be affected by the project acquisition of land and ROW

The distribution of the indirectly affected PAP's into age groups shows that 41% of this population are in the age range below 16 years old and that 4% are above 65 years old. The distribution of age categories disaggregated by gender is provided in **Table 5**.

Table 5: The age structure of the PAPs families

Gender	age category	number	Percentage
Males	<16	63	14.3%
	16-64	118	26.8%
	>65	12	2.7%
females	<16	119	27.0%
	16-64	124	28.1%
	>65	5	1.1%
Total		441	1.0%

It should be noted that the average family size of the surveyed PAPs is 7.35 persons per family.

7.1.2 Marital Status of the surveyed directly affected PAPs

The survey found that 90% of the surveyed affected PAPs are married and some of the male PAPs are married to more than one wife. 8% were found to be widow (five female and two male PAP's) and only 2% (one male) were found single.

7.1.3 Education

The study noted that 3.2% of the surveyed PAPs, those directly affected, are illiterate (all males) and 7.9% are holding PhD degrees. However 47.7% of them was found in receipt of education below high school level (**Figure 3**).

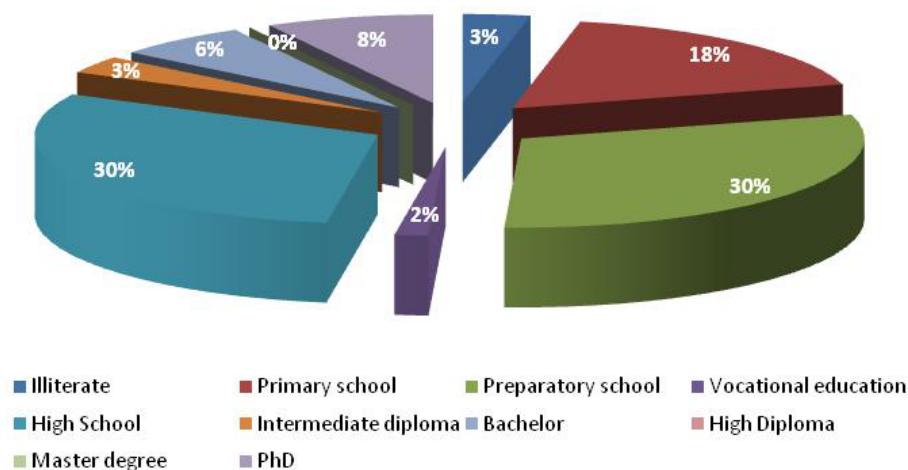


Figure 3: the educational level of the surveyed directly affected PAP's

Female PAP's education was found to be as follow:

- 4 PAPs received primary school education
- 3 PAPs received high school education

7.1.4 Housing Type and Ownership

With regard to residence type, it was found that 78.3% of the surveyed PAP's are living in houses built of cemented blocks and/or white stones and that 3.3% are living in villas. None of the surveyed people was found living in tent (**Figure 4**).

With regard to residence ownership, 84% of the surveyed PAPs were found owning their residence, 13% are tenants and 3% are living either with their parents or in a residence owned by a close relative without paying rent.

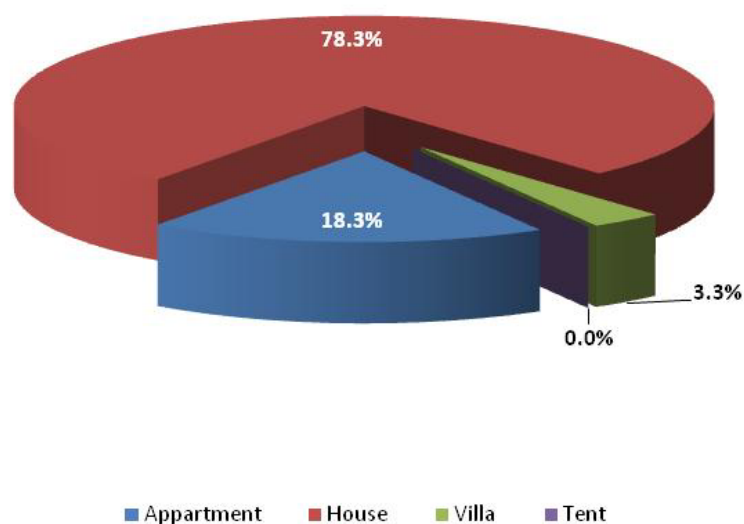


Figure 4: Housing nature of the interviewed assts' owners expected to be affected by the project

7.1.5 Employment

With regard to PAP's employment, survey noted that 38% of the surveyed people mentioned that they are unemployed. However this should be interpreted with caution since for many of them they are retired people receiving retirement compensation, but still they are currently unemployed.

It was found that 28% of the employed PAPs are working in the private sector, 23% in the public sector, 13% are housewife's (six out of seven surveyed women) and the rest of them are self employed **Table 6**.

Table 6: Distribution of the surveyed employed PAPs based on employment sector

Type of work	Number	Percentage
Public sector employee	11	23
Private sector employee	13	28
Investor	10	21
Craftsman	4	9
Housewife	6	13
Freelancer	3	6
Total	47	100

The survey findings of the surveyed PAPs professions are provided in **Table 7**.

Table 7: Profession of the interviewed PAPs

Profession	Number	Percentage
Construction worker	1	1.7
Merchant	5	8.5
Blacksmith	3	5.1
Physician	3	5.1
PhD	2	3.4
Housewife	4	6.8
Driver	5	8.5
Labourer	12	20.3
Military officer	4	6.8
maintenance technician	1	1.7
Water technician	1	1.7
Electrician	2	3.4
Retired	5	8.5
Accountant	1	1.7
Teacher	2	3.4
Farmer	2	3.4
Purchasing official	1	1.7
Aluminum technician	1	1.7
upholsterer Furniture	1	1.7
Plumber	1	1.7
Mechanic	1	1.7
Carpenter	1	1.7
Total	59	100

7.1.6 Income

The survey found, based on the responses of the surveyed PAPs, that the average income at the family level is JOD 714, while the median is JOD 400. It was also noted that the difference in family income between PAPs is remarkable having the highest family income equal to JOD 10,000 and the lowest equal to JOD 170. The distribution of family income into income categories is summarized in **Table 8**.

Table 8: PAPS family monthly income

Category (JOD)	Number	Percentage
<=250	15	29
251-500	23	45
501-750	3	6
751-1000	6	12
1001-1250	1	2
1251-1500	0	0
> 1500	3	6
Total	51	100

Based on the above information, and given the PAP average family size being 7.35 and the poverty line in Jordan being JOD 46, it can be estimated that 39.7% of all surveyed PAPs and their respective families are living with income below poverty line.

The survey also found that 87% of the PAPs families are dependent on income generator in the family which is in most of the cases father. Only one case was found to have the mother as the head of the household and the income provider (**Table 9**).

Table 9: The main family providers

Family provider	Number	Percentage
Father	49	82
Mother	1	2
Sons	8	13
Father and son	2	3
Total	60	100

Table 10 provides summary of study findings concerning the monthly income of the main family provider for the interviewed PAPs. It noted that average main provider income is JOD 589 and the median is JOD 300.

Table 10: Main family provider monthly

Monthly income	Number	Percentage
<=250	18	31.6
251-500	30	52.6
501-750	0	0.0
751-1000	5	8.8
1001-1250	1	1.8
1251-1500	1	1.8
1501-1750	0	0.0
1751-2000	1	1.8
>2000	1	1.8
Total	57	100

The monthly expenditures at the family level were found to be on average JOD 488. The minimum expenditures reported were found to be JOD 170 per month while the maximum was found to be JOD 2,000 (**Table 11**).

Table 11: Monthly family expenditure for the interviewed assets' owners expected to be affected by the project

Expenditure	Number	Percentage
<= 250	15	27
251-500	26	46
501-750	5	9
751-1000	7	13
>1000	3	5
Total	56	100

Income sources for the PAPs families can be one or more of the following:

- Salaries
- Pension
- Profits
- Lease
- Aid from relatives
- Self employment

The percentage distribution of PAPs based on source of income is illustrated in **Figure 5**.

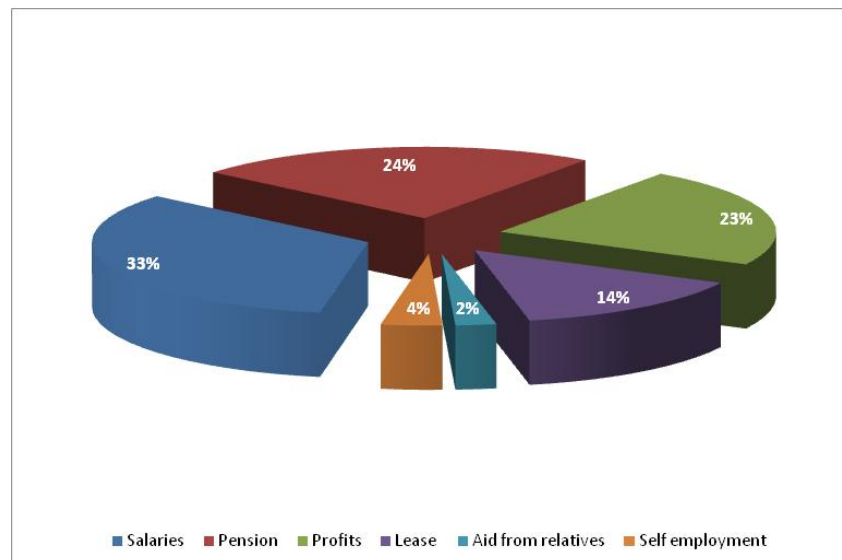


Figure 5: Income sources

7.2 Business PAPs Affected by Construction Activities

7.2.1 Socio-economic Survey of Project Affected Businesses

A total of 49 businesses were surveyed and interviewed by the study team to establish better understanding of the socio-economic character of the different business in the study area. The survey questionnaire was completed for 48 business since one of the business owners (interviewees) refused to complete the questionnaire. Accordingly, the percentage of the surveyed businesses out of the total identified operational businesses is 18.75%.

The selection of the businesses for interviews was arranged by interviewing one representative of each business type in each street thus to ensure that all business types are covered in every single street within the proposed project corridor.

The survey tool (questionnaire) asks questions about the business location, type of business, size of business, ownership, income, socio-economic information about the interviewee and his/her dependents, expected impacts by the proposed Project on the business and suggested mitigation and management measures to avoid, minimize and control such impacts.

Below is a presentation of the survey findings and results.

7.2.2 Characteristics of the interviewed people

7.2.2.1 Interviewee Age and their families age structure

The age distribution of the surveyed business owners and managers shows that 60.5% are between 31 and 50 years old, only one of the interviews was in the age range below 20 years old, and only one above 70 years (Figure 6).

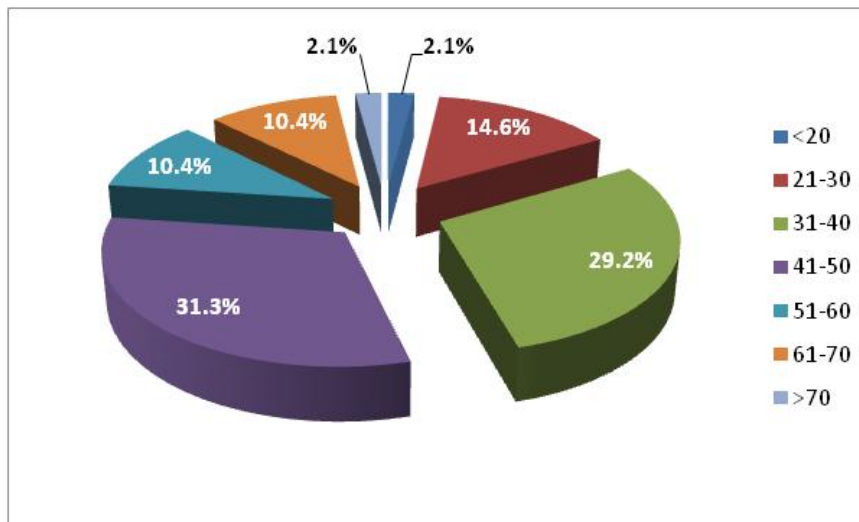


Figure 6: Age distribution of the interviewed business owners and managers

The interviewees are all the primary income generators for their families with an average family size of about 7.4 individuals. The family size distribution (Figure 7) shows that 47.9% are heading families constituting five to seven members, while the smallest family size is two individuals and the largest family size is 24 individuals.

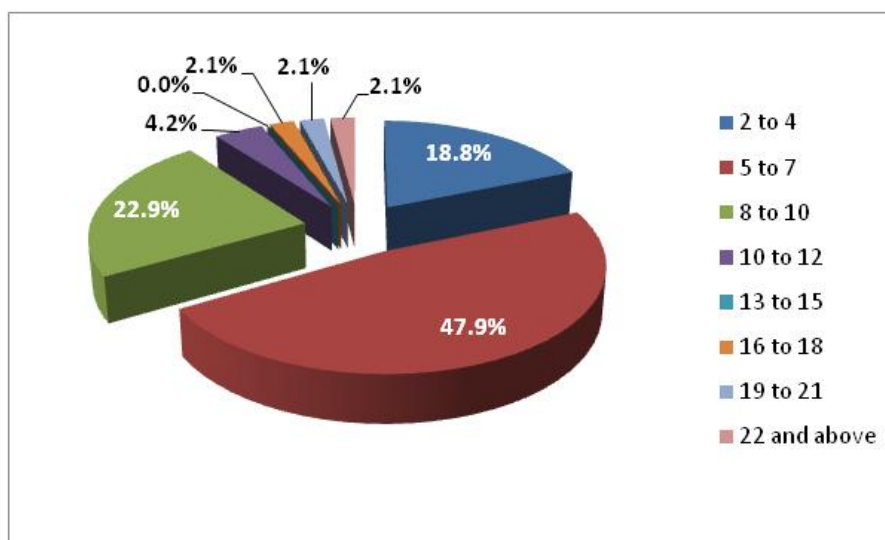


Figure 7: Percentage distribution of the interviewee's family size

The age distribution of the individual members of these families shows that 60.6% are in the age range between 16 and 64 years old, while 37.2% are below 16 years old (**Figure 8**). This indicates that the community of the proposed Project area is a young community.

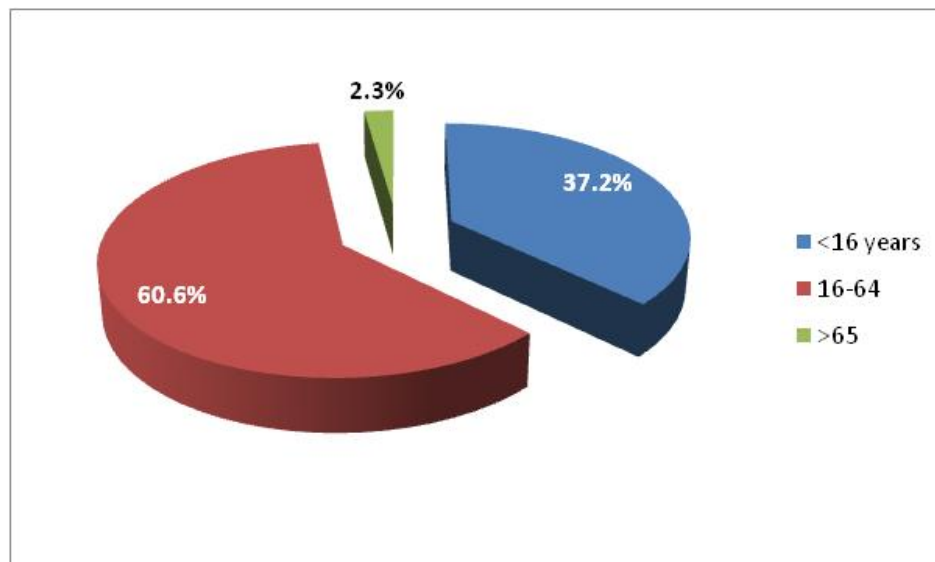


Figure 8: Age distribution of the surveyed population family members

7.2.2.2 Gender and Marital Status

It was found that around 95.8% of the interviewed people are males and only 4.2% are females. The two businesses owned and operated by females are commercial businesses with a rented warehouse. The age of the women business owners are 56 and 68 years old. Both women are the sole income providers to their families and this income is generated from running two small grocery shops.

Having such a low percentage of businesses owned and operated by women is likely to be related to the customs and traditions of such conservative community.

Approximately 31% of the total family members are females in the range of 16-64 of age, 30% are females between 16-64, 21% of males are less than sixteen years, 16% of females are less than sixteen, only around 1.5 are males above 65 and 1% of females above 65 (**Table 12**).

Males constitute around 52% of the total family members and females constitute 48%.

With regard to the marital status of the survey population, it was found that around 87.5% of the interviewed population are married and around 12.5% are single.

Table 12: Percentage distribution of surveyed population family members based on gender and age categories

Type	Age category	Number	Total	Percentage
Males	< 16 years	75	186	21.1
	16-64	106		29.9
	> 65	5		1.4
Females	< 16 years	57	169	16.1
	16-64	109		30.7
	> 65	3		0.8
Total		355	355	100.0

7.2.2.3 Education

Approximately 20.9% of the surveyed business owners and managers received post-secondary education, 6.3% received a diploma higher than a Bachelor degree, and 10.4% have successfully completed a bachelor university degree, leaving 39.6% of the interviewees completing or reaching high school level. However, 8.3% of the interviewed people were found to be illiterate and 10.4% received only primary education (up to third grade level) (See **Figure 9**).

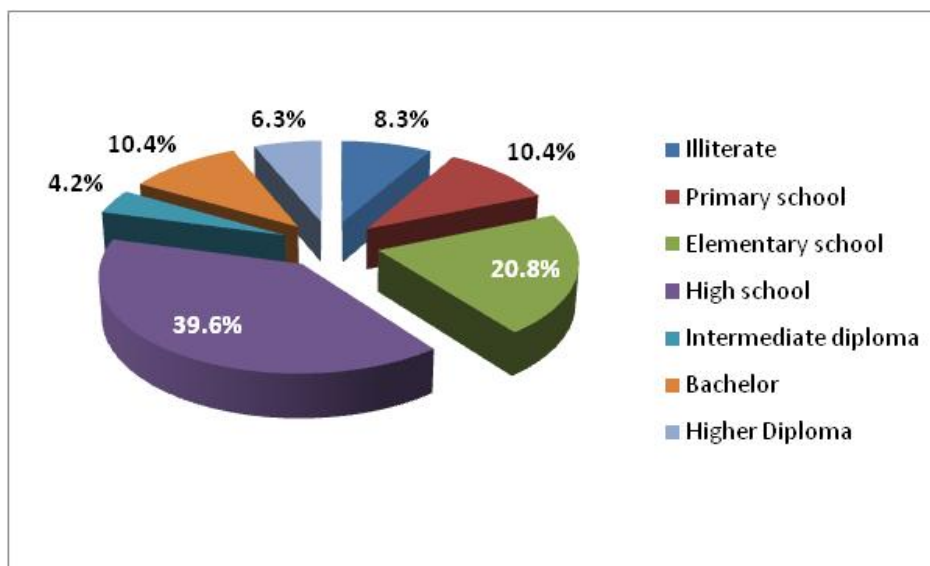


Figure 9: The educational level of the interviewed business owners and managers

7.2.2.4 Profession

Table 13 illustrates the professions of the interviewed business owners and managers in the study area. It was found that around 25% of the persons are merchants, 13% laborers and the others are employees and craftsmen.

Table 13: Professions of sampled of business owners and managers

Profession	Number	Percentage
Salesman	2	4.2
Merchant	12	25.0
Nurse	1	2.1
Blacksmith	1	2.1
Barber	1	2.1
Baker	2	4.2
Housewife	2	4.2
Driver	2	4.2
Chef Cook	1	2.1
Student	1	2.1
Worker	6	12.5
Cooling technician	1	2.1
Printing technician	1	2.1
Electrician	1	2.1
Butcher	1	2.1
Muezzin	1	2.1
Retired employer	2	4.2
Accountant	1	2.1
Poultry breeder	1	2.1
Farmer	1	2.1
Teacher	1	2.1
Lieutenant colonel	1	2.1
Flowers Coordinator	1	2.1
Official employee	2	4.2
Private employee	1	2.1
Mechanical Technician	1	2.1
Total	48	100.0

7.2.2.5 Housing

The interviews showed that around 58.3% of the surveyed population is living in apartments, 39.6% living in houses and 2.1% living in villa. 45.8% of the interviewed people own their residence, 45.8% are living

in rented residence, 6.3% are living in residence owned by a member of their families (mostly with their parents) and 2.1% are living in residence owned by their supposes.

7.2.2.6 Family income

The study noted that 93.75% of the surveyed people are the only income providers to their families, 6.3% of which are females. 6.25% were found to have two income providers to the family, this includes the business owner/manager and either his/her spouse, his son or daughter.

The percentage distribution of the families' gross monthly income shows that 38.6% of the families make income ranging between JOD 251 and JOD 500, and 25% makes less than 250 JODs per month (**Figure 10**). The maximum monthly income of the sample is 15000 JODs and the minimum is 150 JODs. The median income is 400 JODs and the average is 943 JODs per month.

The poverty analysis of the surveyed population, based on poverty line of JOD 46 per month per individual (UNDP, 2011)¹, shows that 38.5% of the surveyed population are making an income below poverty line.

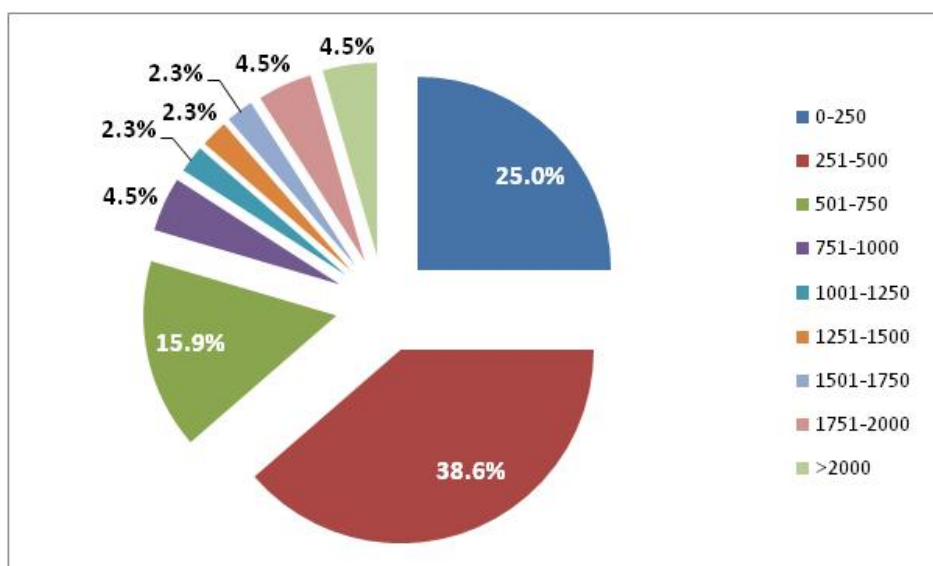


Figure 10: Percentage distribution of the family monthly income for the surveyed population

With regard to the sources of family income, the survey revealed that around 62.5% of the families of the surveyed population are totally dependent on the family income provider's business located within the proposed Project area. The other 37.5% do have other sources of income including salaries (25% of the surveyed population), pension and retirement plans (6.3%), rents (10.4%) and other sources (2.1%).

¹ United Nations Development Programme (Amman-Jordan), and the Ministry of Planning and International Cooperation, the Hashemite Kingdom of Jordan. 2011. Jordan Human Development Report.

8 LEGAL FRAMEWORK FOR INVOLUNTARY RESETTLEMENT BY THE PROJECT

The legal framework and entitlement policies for the land acquisition and resettlement to be carried out for the proposed project are derived from the provisions of the Land Acquisition Law of Jordan and from the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12). The following sections provide review and analysis of related legislations and policies, and summarize the objectives and principles of the resettlement program and provide the detailed entitlement framework for different types of impacts anticipated under the project. Compensation/assistance will be under the specific provisions of this resettlement framework.

8.1 Review of Applicable Legislations and Policies

8.1.1 Jordan Legal Provisions Applicable to Resettlement Imposed by the Proposed Project

8.1.1.1 Jordan Restatement and Land Acquisition Legal Instruments

Enforced national legislations concerning resettlement in Jordan are governed by the Land Acquisition Law, WAJ Law and the provisions of the Management of Government Law.

Land Acquisition Law

The Land Acquisition Law No. (12) of 1987 provides the Government of Jordan the right to acquire any piece of land or property to develop a project for public benefit. However, the government has to compensate the owner(s) fairly. In case the owner(s) are not satisfied with the compensation, they can take it to court. Such matters are considered of high urgency and will be handled by the court system as quickly as possible. The law outlines all the related specifics.

Water Authority Law

The Water Authority Law No. (18) of 1988 provides WAJ the authority the right to acquire any piece of land or property, obtaining right of way or renting lands or property for the implementation of the water supply, wastewater systems or for water rights as clearly mentioned under Item (3) of Article (23) of this law to develop a project for public benefit.

This law, specifically in Article (24-repeated), also provides WAJ the authority and right to construct water supply and wastewater systems within the roads regardless being for general or specific purpose, and based on WAJ technical judgment of the requirements of the system it has the right to construct these systems within private lands and properties. However, WAJ is stressed on to avoid causing damage and to rehabilitate the affected asset whenever such damages are unavoidable.

WAJ is requested by Article (24-repeated) to compensate the owners affected by the acquisition and/or damages caused to his property or assets based on WAJ estimation of the Damage. The Same Article, in item (B) states that WAJ has the right to access any private land or property to implement its water and wastewater projects, and that WAJ can obtain enforcement support from the local governor or the public security whenever needed to ensure WAJ implement its projects.

With regard to disagreements between WAJ and the affected owner of the affected plot or property or asset, Article (26) states that if the authority did not reach agreement with the property/land owner on the amount of compensation to be paid for (1) the acquisition of property and land rights, (2) related rights or water projects or public sewage, then WAJ and/or the affected owner has the right to apply to the competent court to set the compensation amount in accordance with the provisions of the Land Acquisition Law applicable in Jordan, and may also for both parties refer the dispute to arbitration in accordance with the provisions of the Arbitration Law in force.

Since the proposed Project is planned to be implemented by the Millennium Challenge Company – Jordan, it is important to note that though Article (27) of WAJ Law clearly states that no public or private authority is allowed to conduct any of WAJ responsibilities related to water and wastewater management without written authorization from the Minister of Water and Irrigation. However, Article (28) – Item (B) clarifies that it is permissible in cases of contracts for the transfer of project management or leasing contracts to include in the cabinet's decision on this regard authorization to the staff of contracted agencies to exercise some specific authorities entrusted to the staff of WAJ under the legislation in force regarding the implementation of these contracts. This is understood to include the issue of land acquisition and obtaining ROW for the proposed Project as long as such authorization is clearly stated in the cabinet respective decision.

Management of Government Property Law / Leasing and Authorization of Government Property By-law

Under the provisions of the Management of Governmental Properties Law No. (17) Of 1974 and the Leasing and Authorization of Government by-law No. (53) Of 1977, the Cabinet of Ministers has the right to lease or authorize government property in return of rent equivalent to market prices, and in accordance to the recommendations set by the concerned ministry and higher commission of government property. The Higher Commission is comprised of the following members: Minister of Finance (Chairman), Department of Land and Survey (Vice Chairman), Agriculture Credit Corporation, Secretary General of the Ministry of Interior, Secretary General of the Ministry of Municipal Affairs, and the Director General of Forestry and Grazing Land.

The Cabinet has to approve the lease or authorization even if it is going to be used by a government body:

1. Under Article (16) of this law, those given authority of governmental land by delegation are prevented from selling or giving away the respective land or any part of it for a period not less than 10 years from the date of registering his name as delegated owner (squatter recognized by DLS) at DLS. Exceptions to this include: land authorized by the entry into force of the provisions of this Law or later will be delegated to Employees Housing Associations at the time of transferring its ownership with whatever housing constructions on the land to the members of the association.
2. Roads and other immovable property allocated for public goods and benefits when these uses and plans are repealed or delegated to the owners of the lands and properties in which these roads and projects were supposed to be constructed in.
3. Properties and immovable assets when sold or acquisitioned in enforcement of debit collection for the benefit of the creditor when the creditor is a governmental credit organization.
4. Properties and lands legacy being disposed of by sale and gift and exchange and exit between ascendants and descendants up to the third degree of inheritance. This includes ownership transfer between spouses and between brothers and sisters, and between the partners in the delegated land.
5. The land authorized before the entry into force of the provisions of this Law or later, and is delegated to any public university or to the Jordan Industrial Estates Corporation, when selling any part thereof to any party for the purpose of establishing investment projects. This exception is subject to approval by the Cabinet of Ministers.
6. Non-forest land, which is delegated to any organization/party for the purpose of the establishment of large investment projects. This exception is subject to approval by the Cabinet of Ministers, and in accordance with the conditions laid down by any investor or investment project for this purpose.

The Government property authorization and leasing committee (central committee) is described in this law to be established from the following members:

1. Minister of Finance (Chairperson)
2. Director General of the Land and Survey Department (Vice-Chairperson)
3. Secretary General of the Ministry of Interior
4. Secretary General of the Ministry of Municipal Affairs
5. Secretary General of the Ministry of Agriculture
6. Director General of the Agricultural Credits Corporation

The law also states that the establishment of local committees (Governmental Property Committee) is required in each governorate and/or district. The members of this committee include:

1. Local governor
2. Director of the Lands Registration Department (local branch of the Land and Survey Department)
3. Director of Finance in the governorate / District
4. Representative of the Ministry of Agriculture hired by the Minister of Agriculture

These committees are entitled to suggest land delegation related decision to the Minister of Finance, who needs to refer to the cabinet for related, decisions (Article 4 and 5).

It is important to note that the Central Committee (Governmental Property Committee), according to Article (18) of this Law, is entitled to look into the parcelization tables (tables of squatter demanding delegation of governmental lands) and delegate non-surveyed lands to those entitled (have rights) after having these lands and plots surveyed and registered at DLS database and maps. This committee is also entitled to delegate surveyed lands, after consulting DLS maps and database, to squatters who already claim the land or demand ownership rights if those cases are not decided on before the enforcement of this law.

It is also noteworthy to mention that delegated lands and properties under this law are considered a legacy of a dead squatter who was delegated the land, and as such this legacy goes to his inheritors.

Principles of proprietary rights manifested in the Law of Acquisition

The Jordanian Acquisition Law No. 12 for the year 1987 and its amendments are in fact relatively modern and legally comprehensive. The process of acquisition is based on legal and administrative principles aiming at giving the proprietor and all other related beneficiaries fair and just compensation for the acquired properties with all their legal rights vested in the law.

In general, the main principles of proprietary rights manifested in the Law of Acquisition are the following:

1. All proprietary rights are guaranteed by the Constitution of Jordan.
2. Any property shall not be acquired or confiscated except for the construction of a public utility (for public benefit) and only against just and fair compensation.
3. Acquisition means compulsory expropriation of property, beneficial rights, or easement rights in accordance with the provisions of the Law.
4. The Expropriator shall be exclusively the Government, the Municipal and Village Councils or any other official person.

5. The Expropriator, a ministry, a municipality or an official person should prove to the Cabinet that enough funds for the acquisition of property have been allocated.
6. It is the responsibility of the Proprietor to inform the Expropriator of other affected people by the intended acquisition including tenants and beneficiaries of the land/property/asset in writing with a period not exceeding 30 days from the date releasing the acquisition announcement in two official newspapers. The information should include the names of the affected people, their contact information and their rights in the under acquisition property of land. Otherwise, the Proprietor shall be solely responsible for compensating them.
7. Valuation of expropriated property is normally carried out by the Acquisition Committee comprised of representatives from the Ministry of Finance, Land and Survey Department, the concerned municipality, the Ministry of Municipal and Rural Affairs, and representatives from the private sector.
8. Valuation should take into account replacement costs and current market prices.
9. If property is acquired for the first time, the Government is entitled to a reduction of 25 percent of the compensation value. This procedure is applied only once irrespective of how many times property had been expropriated. However, if all land parcels has been acquired, compensation shall be paid for the value of that entire parcel without concession.
10. In case of acquisition of property for the purpose of road construction, the legislator assumed that this process will increase the value of the remaining portion of the parcel. Accordingly, the municipality is entitled to impose tax on the rate of valuated improvement in the value of land.
11. Compensation can be agreed upon in direct negotiations between the proprietor and the Expropriator. This agreement will be legal when approved by the Ministry of Finance or the mayor if the municipality was the actual Expropriator.
12. If the compensation is not believed to be fair, the Proprietor (owner of the land or property issue of acquisition) can file his case to the Court of First Instance in the municipal area where the property is located.
13. If it has been proved that the expropriated property was not actually used for a public utility within three years of the date of acquisition, the proprietor shall have the right to repossess his property by ruling of the court. The owner in this case will refund the value of compensation but in the same time he will be eligible to fair compensation for all expenses procured by him during the period or any loss of rent and other benefits.
14. Eligible persons to claim for compensations shall include all beneficiaries other than the owner such as tenants, those who have right of use and real assets.

15. If the expropriator is not one of the municipalities, then the Director General of Lands and Survey Department needs to take all actions and exercise all the powers which the Expropriator has or is entitled to do under the provisions of this law, and accordingly these actions and its results shall be binding to the Expropriator as if he had carried out these actions by himself, and provided that the validity of the Director General of the Department of Lands and Survey in agreement with the owner (proprietor) on the compensation value for his property is constrained by the amount set by the expropriator for compensation.
16. If the Cabinet is quite convinced that the process of acquisition of a certain property is urgent for the construction of a public utility without delay, compulsory expropriation can take place in accordance with a Cabinet Decree irrespective of the legal procedures specified in the Law.

Therefore, once a decision has been taken to expropriate land or property in the right-of-way of the project, implementation of civil works may take place without delay.

MWI Procedures Related to Resettlement

According to WAJ-Department of Property and Acquisition, land Acquisition for the projects of WAJ goes through the following steps after delivering the required documents:

1. The required documents to be submitted to the Water Authority are:
 - a. Land registration certificate (land lord certificate).
 - b. Cadastral plan.
 - c. Municipality organization chart.
2. Water Authority sends a letter to the Department of Lands and Survey (DLS) asking for the acquisition of the required plot.
3. A surveyor from DLS is assigned to determine the plot (or piece of land) required for acquisition.
4. DLS announces in at least two daily newspapers about the intension of the acquisition of the required plots.
 - a. The announcement needs to mention the name of the expropriator, land (plot) registration number and location details, purpose of the acquisition which should include the name and objective of the project/activity for which the acquisition is being intended and that this should be for public benefit, and a note saying that the expropriator is intending to submit his land acquisition request to the Cabinet of Ministries after 15 days

- from the date of announcement of land acquisition of the described land plot (or property).
- b. Then they submit the acquisition request to the Cabinets of Ministers, after two weeks from the date of the announcement, requesting the acquisition of the required plots for the project/activity purpose which is for public benefit.
 - c. Not noticing the advertisement by land owner in the newspapers will not be an obstacle in the way of the acquisition process even if an objection is made afterwards.
5. Usually, the Cabinet of Ministers arrives at a positive response to the acquisition request as long it is perceived to be for public benefit.
 6. DLS, who is responsible for the land acquisition, assigns a mark on the plot registration sheet saying that it is intended to be acquisitioned to the name of the expropriator. This note is also made to acquired plots on DLS maps and land ownership database, and puts any action of selling or mortgage on hold.
 7. A committee for assessing the land value is formed which is called the (Origin Committee), and in turn the committee calls the land owner and informs him with the estimated price for the plot. If the owner disagrees on the estimated price another committee called the (Negotiation Committee) is formed and the case is brought to them.
 8. The plot is evaluated through forming a committee from the following members:
 - a. A representative of the project owner (e.g. Water Authority of Jordan- WAJ).
 - b. A representative of the Ministry of Finance.
 - c. A representative of the Department of Lands and Survey.
 9. There is also a committee called the Committee of Damage which in turn estimates the damage may be caused by the project (e.g. trees and house cracks). This committee is formed by the governorate itself, in this case Zarqa Governorate. This committee includes local parties of Zarqa, and it evaluates the caused damages and compensates the owners. The local parties includes: a representative of Zarqa Municipality, a representative of Zarqa Governorate, a representative of the Department of Land and Survey and a representative of the Audit Bureau (control body).
 10. If the owner goes to the court in case of price evaluation negotiations fails, the court does not have the right to cancel the acquisition process but the negotiation goes on until agreed upon and meanwhile, the project continues.
 11. The right to pass through the setback (right on way) is given by the owner in case he does not want his land to be expropriated. But the owner could not be forced to give the right on way except in the case of acquisition. In case of the right on way is given by the owner, the owner is obliged to sign a

- commitment not to build above the lines and to allow for periodic maintenance which he should be informed about its dates before it starts.
12. If the owner asks for compensation on the right of way, a revision of the compensation to land acquisition is usually made, because of money will be paid in both cases.
 13. In case of any damage occurring through the project execution a fair compensation is offered or the damaged property should be fixed back by the contractor to its previous state.
 14. In case of the right of way or the need of the for a governmental property acquisition, this is called Appropriation, where the owner is contacted by the government to change the appropriation. In case of the availability of the assets, the two parties coordinate to achieve this appropriation. (e. g. the water trunk of Zarqa passes near the gas pipeline).
 15. Also appropriation process can be achieved through the Ministers Council and the Ministry of Finance.
 16. Usually, the contractor coordinates with the service provider in the area where the line is intended to pass through or the work is going to be established on (e.g. communication or electricity line for a ministry), where they do that job and the payment to the parties is going to be done by the contractor.
 17. In case part of the land is going to be expropriated and this will lead to the disqualification of the rest of the land, or it becomes useless or non-beneficial, the whole property is being acquisitioned and not only part of it.
 18. No follow up is done for the cases that were finally compensated as soon as the acquisition process is finished and the payment to the owner is finally done.
 19. In case of the livelihood of a third party on the property, no compensation is made for the user and the ministry does not usually deal with the third party at all. Where all measures are made with the owner. The land user whose livelihood from that land has the right to ask for fair compensation through the governor or the minister.

8.1.2 World Bank Group policies Applicable to Resettlement

As provided in the World Bank Policy on Involuntary Resettlement (OP 4.12), *“Involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks”*. The policy further explains risks and impacts of involuntary resettlement which may result in having *“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”.

The occurrence of these impacts and risks are likely to occur unless appropriate measures are carefully planned and carried out.

For these reasons, World Bank policy objectives indicated that Involuntary Resettlement should be avoided where feasible, or minimized, exploring all viable alternative designs.

Mass resettlement of the population is not a result of this development project. Involuntary resettlement for the MCC Compact is related to land or property acquisition for the implementation of a public utility or infrastructure project.

As far as the proposed Zarqa Governorate Wastewater System Reinforcement and Expansion project, the final designs were reviewed during the course of preparing this RAP for avoidance of impacts on any population settlements, property, agricultural and grazing land, or beneficial rights which could be avoided without jeopardizing the achievement of the Project goals of improving wastewater systems in Zarqa for the best interest of the beneficiary population which exceeds 100,000 individuals.

The survey of the study area and the PAP's revealed that the total of 98 private- and government-owned plots are to be acquisitioned or must obtain right of way privileges for the proposed project. This triggers the need for preparing and implementing the RAP in compliance with the World Bank OP 4.12 and with nationally applicable legislation.

8.1.3 Gaps Between Jordan Applicable Resettlement Laws and World Bank Group policies

Applicable Jordanian Resettlement Laws were found to be harmonized with many of the key requirements of the World Bank OP 4.12, this includes:

1. The requirement to inform the PAPs of intended land acquisition for the purpose of the respective Project;
2. The requirement to pay compensation where land is compulsorily acquired;
3. The need to compensate for the acquisition of land, properties and assets based on market value of the property at the date of the acquisition decision;
4. The requirement to restore and rehabilitate affected assets and property, and/or to compensate for losses, whether temporary or permanent in production or damage to productive assets and crops; and
5. The provision for pre-judicial avenues for resolution of disputes and rights of appeal.

There are, however, five broad areas where provisions required under OP 4.12 extend beyond those required under current Jordanian legislation. These are as discussed below.

8.1.3.1 Resettlement planning and procedural requirements

1. National legislation applicable to involuntary resettlement and land acquisition in Jordan provides full authority to the government organization requesting land acquisition (expropriator) to decide on the justification, necessity for and avoidance possibilities from the technical perspective. This legislation does not have any statement concerning avoidance and minimization of land acquisition or resettlement, which is required by OP 4.12.
2. Jordanian legislation does not include or require, presently, the expropriator or any government organization to prepare a formal Resettlement Action Plan (RAP), as it does not require undertaking assessment of PAPs (e.g. census or socio-economic survey), consultation with project affected people, monitoring or reporting, which is required by OP 4.12.
3. Applicable Jordanian regulations addresses only impacts associated with the acquisition of land issues and its respective PAPs, and there are no specific references in the legislation to 'involuntary resettlement'. There is no explicit consultation requirement in the applicable law in. Consultation is explicitly required by OP 4.12 as an integral part of the resettlement process.
4. The applicable national legislation related to 'involuntary resettlement' are limited to the acquisition of land, and as such cases of obtaining access rights for pipelines and conveyor systems, or enforcing ROW conditions for similar systems are not defined in the Land Acquisition Law no. (12) For the year 1987. However, WAJ law provides WAJ and its contractors the right to implement actions including the construction of the water and wastewater systems in private properties and enforcing the ROW conditions whenever needed regardless of the PAP's opinion or consensus.
5. Land acquisition procedures are set forth in the Land Acquisition Law no. (12) For the year 1987. The procedures applicable to this Project under this law, and as being practiced by WAJ, are explained in 0) in Page (8-50). The law requires DLS to take charge of the implementation of the land acquisition articulated by this law on behalf of WAJ.

8.1.3.2 Compensation Eligibility and Entitlements

The Land Acquisition Law No. (12) Of 1987 provides the Government of Jordan the right to acquire any piece of land or property to develop a project for public benefit. However, the government has to compensate the owner(s) fairly. In cases where the owner(s) are not satisfied with the compensation,

they can take it to court. Such matters are considered of high urgency and will be handled by the court system as quickly as possible. The law outlines all the related specifics.

Under the provisions of the Management of Government Law No. (17) Of 1974 and the Leasing and Authorization of Government by-law No. (53) Of 1977, the Cabinet of Ministers has the right to lease or authorize government property in return of rent equivalent to market prices, and in accordance to the recommendations set by the concerned ministry and higher commission of government property. The Higher Commission is comprised of the following members: Minister of Finance (Chairman), Department of Land and Survey (Vice Chairman), Agriculture Credit Corporation, Secretary General of the Ministry of Interior, Secretary General of the Ministry of Municipal Affairs, and the Director General of Forestry and Grazing Land.

The Cabinet has to approve the lease or authorization even if it is going to be used by a government body.

The categories of people who must be compensated under current Jordanian legislation are almost the same PAP's defined under OP 4.12. Under the legislation, eligible PAP's for compensation are limited to the following:

1. Legal owners of the under acquisition or acquisitioned land or property;
2. Squatters recognized by DLS who are owners of the under acquisition or acquisitioned land or property;
3. Squatters and people holding position or rights of ownership of under acquisition or acquisitioned land or property, having such rights not registered at DLS; and
4. Leaseholders, tenants and users of the under acquisition or acquisitioned land or property.

The entitlement of those PAP's under current Jordanian are narrower to those described and requested under the World Bank OP 4.12. In summary, the entitlements set forth under Jordanian legislations are as follow:

A. PAPs with ownership rights

- a. Owners of the land plot/property under involuntary acquisition. Those owners are defined under Article (7) of the land Acquisition Law as the people registered as owners or co-owners of the respective land or property at DLS (legal proprietors).
- b. If the owner of the plot or property is not registered at DLS (squatter not recognized by DLS) at the time of announcing land acquisition in the newspapers, then those squatters of the respective plot (people and entities) are considered owners eligible for fair compensation, however this should not imitate the rights of other ownership claimants to

file the ownership dispute at the court of justice. Any disputes on plots or properties ownership between different claimants owners, if not registered at DLS, shall be resolved based on the court of justice decision.

- c. The proprietor is entitled to hold position of all of part of the property assets or attributes, if he wishes to, like for example the deconstruction materials and the cut-off trees. However the value of these assets and attributes are to be evaluated for their price and this price is to be deducted from the assigned and/or agreed compensation. In such a case the translocation costs of such items shall be the responsibility of the proprietor and on his own cost which shall be trans-located from the acquisition property with a period set-forth by the expropriator, otherwise the expropriator arrange for such translocation to the agreed location or to another site as found appropriate to the expropriator and as such the translocation costs are to be deducted from the agreed compensation.
- d. The proprietor is eligible for fair compensation against any damage to any property or asset within the under acquisition area or out of it that is caused by the expropriator, before or after the acquisition of land/property. He is entitled for fair compensation which shall be estimated by a committee constituted from the Director of the Land and Survey Department (Chairperson), Secretary General of the Ministry of Finance and Secretary General of the Audit Bureau. This Committee has the right to assign a sub-committee established in each governorate and constitute the Director of the Public Works Department, Director of Land and Survey and the director of the Agriculture Department in the respective governorate, in addition to representative of the Audit Bureau.

B. Leaseholders, Tenants and Property Users PAPs

- a. Tenants, leaseholders and users are mentioned under Article (8) of the Land Acquisition law which instruct and inquire the proprietor to provide the expropriator with their names, contact details and details on their rights in the under acquisition land or property within 30 days from the date of acquisition announcement.
- b. The same Article clearly states that the proprietor failure to do so will make him fully responsible for compensating those PAPs for their eligible compensations and accordingly the expropriator holds, in such a case, no compensation responsibility toward them. However, the law does not mention any further details about the procedures for assessment or management of similar cases.
- c. Leaseholders, tenants and users are eligible, according to Article (10) of the Land Acquisition Law, to fair compensation against only the complete loss of their leasing,

renting or use agreements with the proprietor. Such compensation is to be deducted from the proprietor compensation. They are entitled to compensation for such a loss for a MAXIMUM of:

- iv. 15% of the compensation allocated to the proprietor if the property or land is leased, rented or used for commercial or industrial purposes; or
- v. 5% of the compensation allocated to the proprietor if the property or land is leased, rented or used for other purposes than the commercial and industrial ones.

As it is understood from the law, the above listed PAP's are the only PAPs entitled for compensation under this law, and they are eligible for compensation against loss of land (ownership rights). The law is not clear about the entitlement of those PAPs against other socio-economic impacts related to post acquisition (involuntary resettlement) livelihood impacts.

The law is lacking articles or instructions concerning restoring livelihood of the affected PAP's or providing them with any sort of assistance post to the resettlement actions. This is considered a gap between the national applicable legislations and the World Bank OP 4.12.

The government is entitled, under Article (11) of the Land Acquisition Law no. (12) for the year 1987 to 25% deduction of the land/property market cost as long as the government entitlement to acquisition of up to 25% of the plot area without compensation is not used by the expropriator.

8.1.3.3 Provisions for unregistered land ownership in Jordan

The applicable law in Jordan does make provisions for people with no legal ownership of the land or property. As mentioned above, if the owner of the plot or property is not registered at DLS (squatter not recognized by DLS) at the time of announcing land acquisition in the newspapers, then those squatters of the respective plot (people and entities) are considered owners eligible for fair compensation; however, this should not imitate the rights of other ownership claimants to file the ownership dispute at the court of justice.

Any disputes on plots or property ownership between different claimants owners, if not registered at DLS, shall be resolved based on the court of justice decision.

Accordingly, both national applicable legislations in Jordan and the World Bank OP 4.12 are considered in agreement on this subject. However, there is one case in which the national legislations are narrower than OP 4.12. This case is related to the users of the property without agreement or at least consent of the proprietor; they are not considered eligible to compensation though the fact they are entitled to file their case to the court of justice and that the proprietor and expropriator are obliged to act in accordance

with the court respective decision. However, since the use is without the consent of the owner, and if such consent can be approved, then it is assumed that the court decision will be decided on behalf of the proprietor.

8.1.3.4 Extent of Compensation and Resettlement Assistance

The applicable national legislation in Jordan and the World Bank OP 4.12 outline similar procedures for compensation regarding compensation for land acquisition. Under applicable Jordanian land acquisition legislation, compensation is payable for loss of land, buildings, assets, crops, profit and other damages arising from the acquisition of land for a project.

However, there are three cases in which OP 4.12 covers more than the national legislations, namely:

1. Moving cost or Restoration support to restore the previous level of livelihood is not recognized under the applicable law in Jordan as a responsibility of the government, and no government agency is charged to carry out such a responsibility.
2. Under the World Bank OP 4.12, compensation for lost properties will be calculated based on full replacement cost, in other words, compensation should be equal to what enables the Project Affected People (PAP) to restore their livelihood at the level prior to the resettlement. Under the applicable law in Jordan, compensation is equal to the market value of lost properties, but there is no explicit reference to depreciation.
3. The compensation of leaseholders, tenants and users is to be deducted from the compensation allocated and/or agreed on with the proprietor. Given also that the government is entitled to free (without compensation) acquisition of up to 25% of the land/property, or to 25% discount on the assigned fair compensation, then this is likely to conflict with the fairness of the compensation received by the proprietor and as such with the OP 4.12.
4. The applicable national legislations give the authority to respective municipalities to enforce and deduct land/property improvement tax subject to the construction of roads as governed by Management of Government Law No. (17) Of 1974 and the Leasing and Authorization of Government by-law No. (53) Of 1977. This also applies to this Project since the Land Acquisition Law defines roads to include the construction of wastewater systems.

8.1.3.5 Income restoration

Under the OP 4.12, lost income due to project implementation should be compensated. The applicable law in Jordan recognizes only leaseholders, tenants and users based on prior agreement (written or verbal contract) with the proprietor holding rights in the property or land as eligible for compensation deductible from the amount allocated, assigned or agreed on with the proprietor (see section 8.1.3.2 in page 8-54), however, it does not recognize compensation for such lost income.

8.2 Project-Specific Mechanisms to Address Compliance Issues with World Bank OP 4.12

For the purpose of the construction of the Zarqa Governorate Wastewater System Reinforcement and Expansion Project, three types of properties have to be acquired, namely:

1. Private land and property which include two categories:
 - a. Land and property owned by registered owners at DLS or by squatters recognized and registered by DLS; and
 - b. Land and property owned by not registered Squatters (not recognized by DLS) who are at the time of the land acquisition announcement on hold of the land/property and claimant of its ownership.
2. Government or Treasury Land.
3. Authorization from the respective municipalities in Russiefah, Al Hashimyah and Zarqa to construct the pipeline within the road's right-of-way or within the road itself.

The acquirement of land and property mentioned above include two types:

1. Complete acquisition which entails translocation the full ownership of the land/property from the proprietor to the expropriator. This entails dislocation of the respective owners, leaseholders, tenants and users from the respective land/property; and
2. Obtaining ROW which entails forcing restrictions on the free use of the land/property by its owner within the ROW corridor.

The legal review showed that there are a number of issues for which World Bank OP 4.12 was found narrower and covers more than what the applicable national legislation cover. As such, the proposed Project application of only the national legislations is likely satisfy, but not fully, the provisions of OP 4.12. Therefore, project specific arrangements are indicated in order to ensure that the Bank's social safeguard policies on involuntary resettlement are met.

Also, since the proposed Project is planned to be implemented by the MCC based on an agreement with WAJ, and as governed by the applicable national legislation related to land acquisition, DLS is authorized by law to take charge of the land acquisition process following WAJ submittal of the land acquisition request to DLS (see section 0 in page 8-50).

In summary of the compliance requirements, the issues discussed below should be taking into consideration.

8.2.1 PAP Consultation and Negotiation

Jordan's land acquisition law and process is not consultative, however its legal and administrative process incorporates public notification of intended acquisition, assessment, objection and negotiation, complaint and resolution. The process may entail juridical process and may also entail enforcement of the action by the local enforcement organizations (by the governor and the public security/police). This process is not fully in line with the OP 4.12 which places more emphasis on introducing and maintaining consultation of the PAPs and monitoring of the impacts.

8.2.2 Land Acquisition and Compensation

In the current land acquisition process in Jordan the ROW for similar projects is obtained without PAP consent; however, the system applies compensation measures in the form of restoring/rehabilitating affected assets (buildings, pavements, re-plantation of trees, etc.) upon the occurrence of damage to assets falling within the ROW corridor or in its nearby if affected.

Though, applicable national legislation stresses on the eligibility of PAPs to be compensated for economic loss caused by the activities of similar projects, like for example the reduction in plot or property value in the market, however, this is not being enforced. Also, compensation for economic losses from loss of productivity is not addressed by the land acquisition law in Jordan. However, the OP 4.12 requires the Project to take the above cases into consideration, compensate for the loss and establish a support system to the affected PAPs post development in order to recover their livelihoods. This should be combined with monitoring actions.

The national legislation requires compensation for land acquisition to be fair based on the market price. However, OP 4.12 requires the compensation to be in full for the equivalent of the acquisitioned land or property.

8.2.3 Construction in the Right-of-Way of Roads

Permission is to be obtained from the related municipalities for each project area to carryout project construction activities within the right of way of the existing, under construction and planned roads.

Also, if the Contractor needs to use a land or a private property outside the right of way for construction purposes, the rental or purchase of land to be used as campsites or storage yards will be his/her own responsibility and this will not be called acquisition according to the Jordanian law.

8.3 RAP Implementation Principles

The key principles to be followed in the design and implementation of the land acquisition and resettlement program are as follows:

1. Affected people will be consulted on, and provided opportunities to participate in, the design and implementation of the land acquisition and resettlement program.
2. PAP's entitled to compensation shall be negotiated for the value of compensation and their consensus is important to be achieved.
3. Land acquisition and involuntary resettlement will be avoided, as far as possible, or minimized, exploring different design and location options for project infrastructure during project construction.
4. Assets and properties belonging to affected people who are planned to be acquisitioned or expected to be partially or totally damaged or lost will be compensated at their replacement / equivalent value, in full and without delay.
5. The Project should consider the market price as the minimum in the negotiations with the PAPs and the negotiation selling should be the cost of the equivalent as instructed by the World Bank Policy.
6. Compensation for affected assets will be paid prior to the initiation of civil works in a given location.
7. Affected people will be assisted to restore their incomes and standards of living, regardless of the legality of their land tenure.
8. Special attention is to be paid to vulnerable people; i.e. the poor people and women affected persons thus to ensure that the project impact on them are avoided, minimized and compensated for in full. Follow up assistance and livelihood support are to be considered whenever needed post to the project if the anticipated effects on them are likely to affect their livelihood in the future.

9 INSTITUTIONAL FRAMEWORK

The Ministry of Water and Irrigation (MWI), Water Authority of Jordan (WAJ) and Jordan Valley Authority (JVA) are the three organizations directly influencing the water sector in Jordan. The Ministry of Water and Irrigation was established some years after the foundation of the Water Authority of Jordan and the Jordan Valley Authority. The Minister of MWI is the head of the Board of Directors of both organizations. Each of these organizations has its own organizational structure, responsibility area and missions.

The major stakeholders related to the Zarqa Governorate Wastewater System Reinforcement and Expansion are:

- Ministry of Water and Irrigation
- Water Authority of Jordan
- Ministry of Municipal Affairs
- Department of Land and Survey
- Ministry of Tourism and Antiquities
- Ministry of Agriculture
- Al Hashimiyah Municipality
- Russiefah Municipality
- Zarqa Municipality
- Local communities
- NGO sector

The following is the description and main characteristics for MWI and WAJ as umbrella institutions for the proposed Project. The ministries and institutions most directly relevant to environmental issues are presented afterwards.

9.1 Ministry of Water and Irrigation (MWI)

The Ministry of Water and Irrigation (MWI), created in 1988, is the only public sector agency at present in the region that integrates the management of different user sectors, thus allowing for a cross-sectoral perspective in water allocation and management. This integration provides MWI the chance to coordinate water resources allocation and management, taking a cross-sectoral perspective that accounts for irrigation, municipal and industrial needs.

In order to establish water resources management and integrate various policies under one entity, MWI's main objective is to centralize the national management of substantially insufficient water resources to one ministry in order to improve it. The MWI acquired the comprehensive function to distribute and regulate the water resources in Jordan and the responsible authority to settle any disputes that arise between agriculturists and water supply authorities.

The establishment of the Ministry of Water and Irrigation was in response to Jordan's recognition for the need of a more integrated approach to water management. Since its establishment, MWI has been supported by several donor organization projects that have assisted in the development of water policy and water master planning as well as restructuring the water sector.

The role of the Ministry includes the provision of policy setting and formulating water sector master plans, centralized data collection, a geographic information system, monitoring and national water planning for the water sector of Jordan and water protection related environmental issues and decision-making.

A comprehensive national water data bank has been established and kept at the Ministry of Water and Irrigation and will be aided by a decision support unit. Additionally, this data bank will be supported by a program of monitoring and a system of data collection, entry, updating, processing and dissemination of information, and will be designed to become a terminal in a regional data bank set up.

The main responsibilities and tasks of MWI are (primary source is the MWI website: <http://www.mwi.gov.jo>):

- To design and enforce a national water strategy
- To monitor all groundwater resources in the kingdom
- To establish and keep a data base for water resources
- To coordinate the funding from the international donor agencies
- To develop water strategies and policies with the JVA and WAJ

The government has carried some substantial reforms in the water sector. These reforms were mainly focused on resource management, financial management, and institutional and legislative aspects.

9.2 The Water Authority of Jordan (WAJ)

WAJ is responsible for the construction, operation and maintenance of water supply and sewage facilities and the national water resources management under the Ministry of Water and Irrigation in accordance with the law No. 18/1988. It was established as an autonomous corporate body with financial and

administrative independence. It formulates water supply and sewage policies and prepares water resources management plans. This organization also has the responsibility of supervising the water supply and sewage services being implemented and water protection related environmental issues. In recent years, WAJ is moving from policy setting and formulating water sector master plans into services' provision.

The main responsibilities and tasks of the Authority are (primary source is the WAJ website <http://www.mwi.gov.jo>):

- Survey the different water resources, conserve them, and determine ways, means and priorities for their implementation and use.
- Develop the potential water resources in the Kingdom, increase their capacity and improve their quality, protect them from pollution, supervise them and administer their affairs and put forth programs and plans to meet future water needs by providing additional water resources from inside or outside the Kingdom and through the use of water treatment and desalination.
- Regulate, and advise on, the construction of public and private wells, investigate groundwater resources, drill exploratory, reconnaissance, and production wells, and license well drilling rigs and drillers.
- Study, design, construct, operate, maintain, and administer water and public sewerage projects including collecting, purifying, treating, disposing and the use of any other method dealing with water.
- Draw terms, specifications and special requirements in relation to the preservation of water and water basins, protecting them from pollution, and ascertain the safety of water and sewerage structures, public and private distribution and disposal networks, and take the necessary action to ensure technical control and supervision, including all necessary tests.
- Carry out theoretical and applied research and studies regarding water and public sewerage to achieve the Authority's objectives including the preparation of approved water quality standards for different uses and technical specifications concerning materials and construction in order to apply the findings to the Authority's projects in coordination with other concerned departments; and publish the final findings and standards so as to generalize their application by all means available to the Authority.
- Issue permits to engineers and licensed professionals to perform public water and sewerage works, and participates in organizing special training courses to qualify them in order to improve the standard of such works and to reduce water losses and pollution. All those involved in water and sewerage works are requested to adjust their practice in accordance with the provisions of this Article and to obtain the specified permit accordingly.

- Regulate the uses of water, prevent its waste, and conserve its consumption.

There are many Directorates and Sections within the Water Authority of Jordan (WAJ) that undertake the implementation to WAJ objectives and roles. Perhaps two of the most important sections that work on the implementation of water policies are the Wells Directorate and the Laboratories Directorate. The Wells Directorate is in charge of licensing of private wells in addition to groundwater development and utilization. Administratively, it is directly under the supervision of the Secretary General of Water Authority. The Directorate consists of two sections: the License of Wells Section and the Operations and Field Follow up Section.

Although WAJ has a wide mandate that encompass regulatory function in addition to its main mandate of providing water and wastewater services of high quality, WAJ has been able to provide high quality services and achieve good coverage of water in Jordan; hence water and wastewater services in Jordan has to be acknowledged as outstanding in the region. Water supply covers more than 98 percent of the population and the target of full coverage is underway. Wastewater services have been improving in the recent years and WAJ has managed to increase coverage to about 75 percent in urban areas in Jordan.

9.3 Ministry of Health (MOH)

The Ministry of Health (MOH) is responsible for the following:

- All health affairs in the Kingdom, including the supply of medication, medical services, vaccination programs against epidemics, public awareness campaigns with regards to health issues and health insurance to government personnel.
- Monitor the sewerage systems.
- Issue instructions, as required, to define rules for the purpose of the entry of food or medications into the Hashemite Kingdom of Jordan, and to ensure that they comply with national health standards and specifications.
- Issue licenses for the construction of hospitals, medical centers and all medical related practices in accordance to the Doctors' Association rules and regulations.
- Set the Ministry's policy, plans and future projects.
- Monitor and control drinking water to ensure its suitability for human use.

9.4 Department of Lands and Surveys

The Department of Lands and Survey plays a vital role in preserving land property rights and solving any conflicts concerning rights in land or water. DLS represents Jordan's land information bank. Article 3 of the by-law (80) /1999 (organization of DLS) states that the duties and tasks of DLS should be the following:

1. Completion and maintenance of the cadastral system (the cadastral maps and the registration records), fixing the borders of the plots (parcels), settling (solving) disputes on land and issuing cadastral maps.
2. Registration of land property rights, maintaining them and facilitating their use.
3. Establishment and maintenance of triangulation networks of fourth and fifth orders, based on the national geodetic network, which was established and is maintained by the Royal Jordanian Geographic Centre (RJGC).
4. Processing property related transactions (sale, transfer, subdivision, partition, mortgage...etc). Determining and collecting land transfer taxes and fees.
5. Administering, protecting, renting, accrediting, and updating records of state land, as well as expropriation of land for public interest.
6. Establishing a comprehensive land valuation system, and maintaining its records for the purposes of registration transactions.
7. Archiving and maintaining land registry records
8. Establishing a Cadastral Information System (CIS), as part of the National Information System (NIS).
9. Organizing and carrying out the licensing of the private (chartered) surveyors, land values and real estate brokers.

9.5 Ministry of Public Works and Housing

The Ministry of Public Works and Housing (MPWH) was created in 1954. The MPWH is responsible for the construction and maintenance of infrastructure in Jordan including the major transportation infrastructure (highways, road, etc) that connect the main cities, towns, residential areas, industrial zones, tourist sites, etc. together. In addition, it is responsible for connecting Jordan to its neighboring countries by major highways.

Furthermore, the MPWH is responsible for constructing and maintaining government buildings and the capacity development of the building sector in Jordan.

Specifically, MPWH responsibilities include:

- Setting transportation plans (construction and maintenance) for cities, towns, villages and rural areas.
- Designing and supervising the construction of government buildings.
- Conducting testing on construction material to ensure adherence to standards and specification.
- Conducting research and studies on roads and buildings.
- Drafting legislation and standards related to buildings and roads.
- Upgrading criteria and methods for construction design and maintenance.
- Coordinating with concerned parties on road and buildings related issues.

9.6 Housing and Urban Development Organization

The first government intervention in housing policies was in 1965 by the establishment of the Housing Corporation with an aim to provide affordable housing for low and limited income groups throughout the Kingdom. Followed by the creation of the Housing Bank in 1973 with special privileges from the government enabled the bank to provide subsidized housing loans to the targeted groups.

In 1980 the government established the Urban Development Department to upgrade the slums and squatter areas within Amman, Zarqa and Aqaba and to provide Site-and-Service schemes for the low income groups.

The same period witnessed housing activities through other agencies, such as the Military Housing Corporation, Teachers Housing Funds, and Universities Housing Funds, Housing co-operatives, Formal Private Sector and other.

The presence of different institutions to plan and execute housing with lack of co-ordination among them resulted in the increase in vacant housing units, deficit of affordable units for the low-income families, increase in land cost and unit selling prices and widened the gap between the demand and the supply.

Therefore, in the late eighties the government of Jordan prepared the National Housing Strategy and adopted it in 1989. The strategy covered all the housing components and produced a whole set of recommendations that governs the housing sector's activities for the last 20 years.

10 ELIGIBILITY

10.1 Land Acquisition / Resettlement due to the Project

To the date of this report, a total of 76 plot are expected to be affected by the proposed land acquisition and obtaining the ROW for the wastewater system. Given that there is ongoing parcelization and establishment of new roads, some of these plots and affected PAPs can possibly be avoided. New plots and PAPs are likely to be identified during the course of the Project implementation given that the results of the plots parcelization is going to identify new PAPs and ownership changes are expected.

10.2 Definition of Project Affected People

10.2.1 Categories of Project Affected People and Analysis of Vulnerability

People identified to be affected by the proposed project land acquisition and ROW activities can be grouped into four main categories which can be further sub-divided into 14 sub-categories taking into consideration land ownership and use status by respective PAP's under applicable national legislation and World Bank safeguard policies. Those are listed in **Table 14**.

Though 14 sub-categories have been identified, six sub-categories were found inapplicable for the Project since none of the identified PAPs was found belonging to it.

Table 14: Categories and sub-Categories of PAP's Affected by LA and ROW

Category Title	Code	Sub-categories	Sub-category Definition	Applicability to this RAP ²
Land Owners	I.A	Individual ownership	The plot/property is owned by one individual or organization. This ownership is registered and documented at DLS and the owner is issued plot/property official registration certificates by DLS	Applicable
	I.B	Shared ownership	The plot/property is owned by two or more individuals or organizations. This ownership is registered and documented at DLS and the names of the owners and their ownership holdings are described in the plot/property official registration certificates issued by DLS.	Applicable
	I.C	Government ownership	The plot/property is owned by the government of Jordan (registered as treasury land) or by one or more of the governmental organizations. This ownership is registered and documented at DLS and the owner is issued plot/property official registration certificates by DLS.	Applicable
	I.D	Delegated ownership under "Power of Attorney"	This type of delegation of ownership is sometimes arranged between the seller (previous owner) who acquisitioned treasury land (issue of the power of attorney) and accordingly is not allowed to sell this specific plot for a period of 10 years as governed by respective Jordanian laws, with the buyer (new owner) who paid the agreed price to the seller and obtained Permanent (non-isolated) Power of Attorney from the seller over the Property to ensure his right of it.	Applicable
Squatters	II.A	Squatters Recognized by DLS	people having ownership or claiming ownership of the land/property/asset but do not hold official registration certificates issued by DLS, however they are holding other forms of property ownership documentation recognized by DLS known local as "Hujah" and their names are presented as share holders of the land in the Land Register and the Lands Database at DLS.	Applicable
	II.B	Claimant Squatters	People having ownership or claiming ownership of the land/property/asset but do not hold official registration certificates issued by DLS or "Hujah" and their names are NOT presented as share holders of the land in the Land Register and the Lands Database at DLS.	Not Applicable
Tenants	III.A	Businesses Tenants with open-end-contracts	Land or property rented by the tenant(s) for business purpose for a daily, monthly or annual fee paid either in advance or post to the rental period. The contract is open ended which means that there is a written contract ratified by the tenant and the owner (or his delegated representative) but the contract does not have end or termination date. The owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000 have set dates for considering end date for the open-ended contracts based on the date of ratification and accordingly all new contracts (after 31/8/2000) should have specific contract end date and clear contract renewal statements.	Applicable
	III.B	Businesses Tenants with fixed-term contract	Land or property rented by the tenant(s) for business purpose for a daily, monthly or annual fee paid either in advance or post to the rental period. The contract has specific start and end dates obligatory to both parties in addition to clear renewal conditions. This is governed by owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000.	Applicable

2 Applicable categories and sub-categories are those identified within the Project area where LA or ROW is planned for implementation by the proposed project.
Not applicable categories and sub-categories are those not identified within the Project area to be affected by LA and/or ROW.

Category Title	Code	Sub-categories	Sub-category Definition	Applicability to this RAP ²
	III.C	Businesses Tenants without contracts	Land or property rented by the tenant(s) for business purpose for a daily, monthly or annual fee paid either in advance or post to the rental period. Similar lease agreements are verbal between the owner and the tenant(s) and lacks proper contract documentation. Any related disputes are governed by owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000.	Not Applicable
	III.D	Residential Tenants with open-end-contracts	Land or property rented by the tenant(s) for the purpose of shelter/residence by the tenant himself for a daily, monthly or annual fee paid either in advance or post to the rental period. The contract is open ended which means that there is a written contract ratified by the tenant and the owner (or his delegated representative) but the contract does not have end or termination date. The owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000 have set dates for considering end date for the open-ended contracts based on the date of ratification and accordingly all new contracts (after 31/8/2000) should have specific contract end date and clear contract renewal statements.	Not Applicable
	III.E	Residential Tenants with fixed-term contract	Land or property rented by the tenant(s) for the purpose of shelter/residence by the tenant himself for a daily, monthly or annual fee paid either in advance or post to the rental period. The contract has specific start and end dates obligatory to both parties in addition to clear renewal conditions. This is governed by owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000.	Applicable
	III.F	Residential Tenants without contracts	Land or property rented by the tenant(s) for the purpose of shelter/residence by the tenant himself for a daily, monthly or annual fee paid either in advance or post to the rental period. Similar lease agreements are verbal between the owner and the tenant(s) and lacks proper contract documentation. Any related disputes are governed by owners and tenants law No. 11 for the year 1994 and the amended Law No. 30 for the year 2000.	Not Applicable
Users	IV.A	Users of governmentally owned land	This sub-category excludes users holding lease agreements with the respective owner governmental organization, and excludes the plots allocated for public use like parks and roads. It is specific to those users of the land/property for animal grazing, shelter (nomadic people of Bedouins and gypsies roots), farming, etc. usually such uses are not documented and does not have even have verbal agreements. However, nomadic Bedouin people are roaming within areas known locally to be within their tribal territory (locally known as Al Wajhat Al Ashairiyah) where they inherited the right to access these lands based on local agreements between the Jordanian tribes.	Not applicable
	IV.B	Users of privately owned lands	This sub-category excludes users holding lease agreements with the respective private owner(s). It is specific to those users of the land/property for animal grazing, shelter (nomadic people of Bedouins and gypsies roots), farming, etc.	Not applicable

10.2.2 PAPs Affected by Land Acquisition and ROW

This study initially identified total of 151 PAPs expected to be affected by the proposed Project acquisition of land and obtaining and enforcing ROW within 98 private-or government- owned plots of land. As mentioned above, some of these plots are already in use by the owners, few are undergoing construction, few are planned for construction in the near future and the remaining is at current time vacant from any use.

Appendix 3 provides a summary account of the identified PAPs and the the progress in consultation with PAPs and the suggested revisions for each case based on the findings and observations gathered during the field survey of the identified plots and from the consultation of the identified PAP's and other local interest groups.

Some of the PAP's were found owning more than one plot that has been identified as target by the project for land acquisition and/or ROW; those are summarized in **Table 15** below.

Table 15: List of PAPs owning more than one plot targeted for land acquisition and / or ROW

RAP Case Reference No.	Package Area	New Resettlement Type	Plot Number	PAP Ref. No.	PAP Category and Type	Total No. of Plots
1	East Zarqa	ROW	9558	5	Individual ownership (Male)	6
			9505			
			9485			
			7073			
			6347			
			6343			
2	East Zarqa	ROW	7316	17	Individual ownership (Male)	2
			7316			
3	East Zarqa	ROW	8553	21	Individual ownership (Male)	2
			8554			
4	East Zarqa	ROW	7241	28	Individual ownership (Male)	2
			7246			
5	East Zarqa	ROW	11260	179	Individual ownership (Male)	2
			11259			
6	East Zarqa	ROW	11258	180	Individual ownership (Male)	3
			11257			

Zarqa Governorate Wastewater System Reinforcement and Expansion

RAP Case Reference No.	Package Area	New Resettlement Type	Plot Number	PAP Ref. No.	PAP Category and Type	Total No. of Plots
			11256			
7	East Zarqa	ROW	6094	45	Governmental Ownership (Municipality)	2
			6071			
8	East Zarqa	ROW	6135	46	Governmental Ownership (Corporation)	2
			6129			
9	West Zarqa	ROW	701	49	Governmental Ownership (Treasury Land)	3
			701			
			12			
10	West Zarqa	ROW	692	110	Governmental Ownership (Ministry)	2
			3884			
11	Al Russeifa	ROW	80	126	Individual ownership (Male)	2
				126		

10.2.3 Identified Businesses in the Project Area

A total of 49 public service facilities were identified within the proposed project corridor during the field survey of the proposed wastewater system alignment which is likely to be directly or indirectly affected for a temporary period, i.e. the construction period, mainly by limiting access to these facilities. This includes mosques, churches, schools, parks and police stations (**Figure 11**).

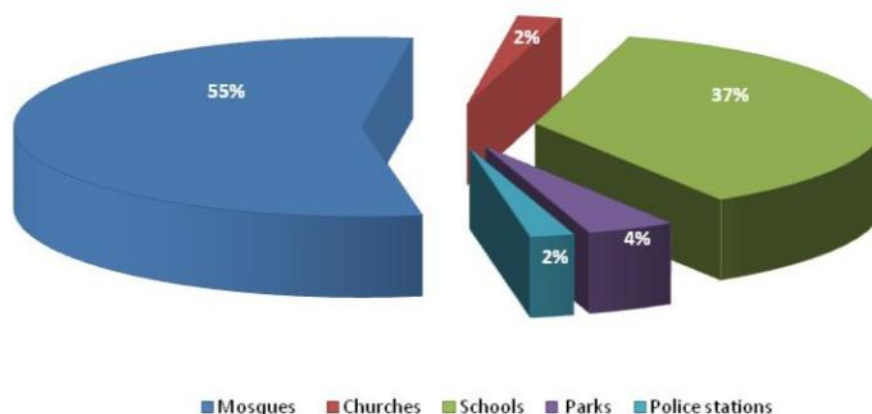


Figure 11: Number of public facilities recorded within the proposed Project corridor likely to be affected by the Project construction activities

Businesses identified within the proposed project area along the corridor of the wastewater system were counted by the RAP study team and grouped based on type of business. The total number of business establishments recorded in the three proposed Project three areas reached 536, of which 280 establishment are vacant and not in use. The distribution of these businesses in the three study areas shows that 52.5% are located in West Zarqa, and more than half of the identified businesses to be affected by the proposed Project will be in West Zarqa Project Package Area.

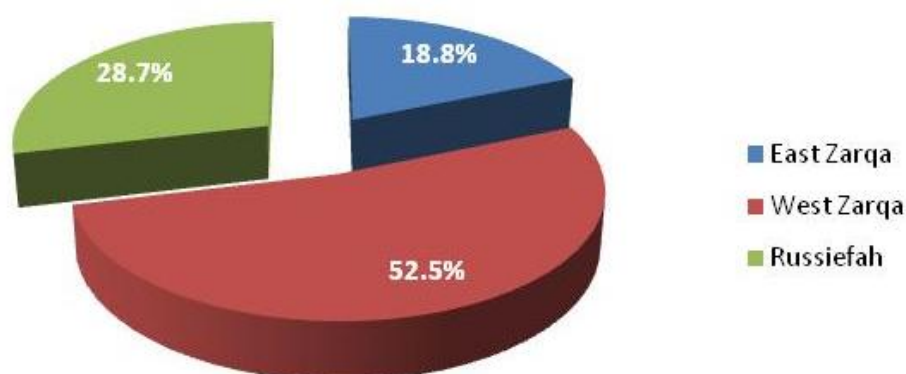


Figure 12: Distribution of the number of recorded businesses in the three package areas

The distribution of those establishment based on business type is illustrated in **Figure 13**. Commercial businesses comprise 74% of the total counted and recorded business establishments. Agriculture comes third with only 5% of the total recorded businesses within the project corridor.

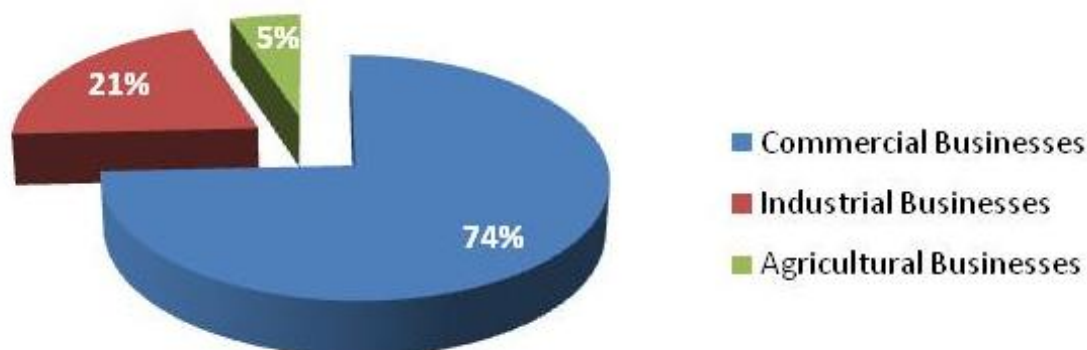


Figure 13: Distribution of the counted business establishments within the study area

Commercial business includes 22 categories, grocery shops being the most frequent commercial business in the area which are in most small shops. The number of businesses recorded from the study are under each category are listed in **Table 16**.

Table 16: Commercial business recorded within the Project corridor

Commercial Business Category	Number of recorded businesses
Groceries, food shops, pastry (one door)	68
Groceries, restaurants, food stores and pastry (More than two doors)	24
Hair saloons	19
Bookshops	9
Computer & mobile shops	9
Poultry & livestock meat shops	7
Furniture and electric equipments dealers	6
Coffee shops	6
Building material shops	5
Pharmacies	5
Real estate offices	5
Bakeries	5
Educational centers	5
Water purification shops	4
Clinics and medical centers	3
Charities	2
Chairs and tables renting offices	2
Scrap shops	2
Banks	1
Taxi Offices	1
Female Accessories	1
Insurance offices	1
Total	190

Recorded agricultural business in the study area reach a total of 13 having one poultry farm and 12 vegetable and tree farms.

A total of 53 industrial businesses were recorded from the study area ranging from small handicraft service shops to heavy industries. The percentage distribution of these business establishments based on industrial business type is illustrated in **Figure 14**.

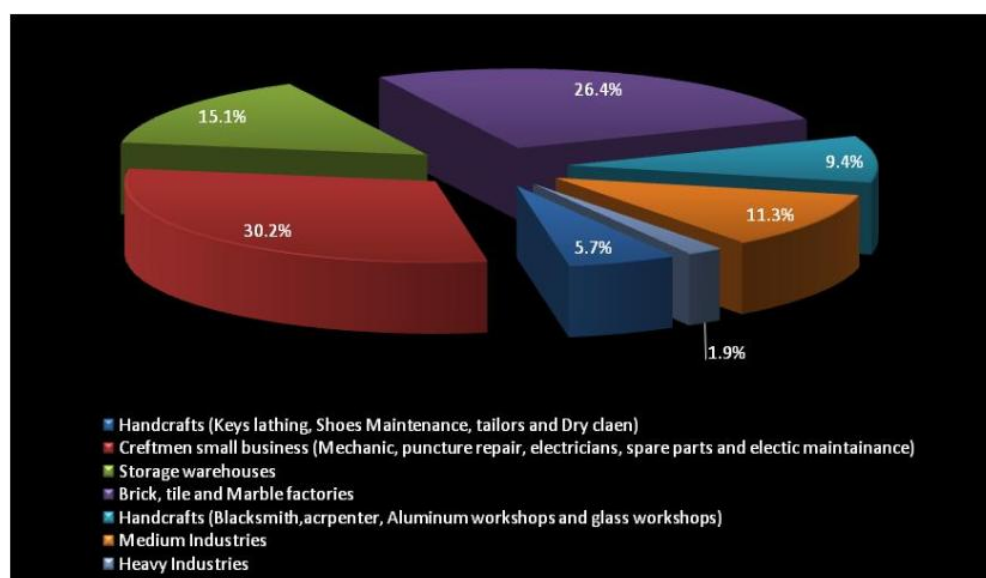


Figure 14: Percentage distribution of counted industrial business establishments in the study based on business type

10.3 Criteria for determining PAP's eligibility and entitlement

In principal, and as required by the World Bank OP 4.12, the following guidelines has been addressed concerning PAP's entitlement aspects:

1. Identified PAPs who are likely to be displaced or to face economic losses or livelihood impacts are entitled to be:
 - a. informed about their options and rights pertaining to resettlement;
 - b. consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and
 - c. provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.
2. In the case of physical relocation of PAP's, then displaced persons are entitled to be:
 - a. provided assistance (such as moving allowances) during relocation;
 - b. provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, vocational advantages, and other factors is at least equivalent to the advantages of the old site; and
 - c. Where necessary to achieve the objectives of the policy:

- i. offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and
- ii. provided with development assistance in addition to compensation measures, such as land preparation, credit facilities, and training or job opportunities.

Based on the above guidelines, Project RAP-specific eligibility criteria and identification key was prepared to guide the determination of PAP's eligibility for RAP measures and case by case entitlements. The eligibility key is provided in **Table 17**.

10.4 PAP's Entitlement

Case by case PAP's entitlements against identified impacts by the proposed Project land acquisition and ROW activities are presented in **Appendix 5: RAP Costs and Budget (Confidential Annex)**.

Table 17: Summary PAP' s eligibility determination key

Type of Impact	Resettlement Stressors	Duration of the Impact	PAP Category	Eligibility	Remarks
relocation or loss of shelter (i.e. loss of land/property) loss or damage of assets within the to be acquisition plot	LA	Permanent	Owners and Squatters	Eligible for satisfactory financial compensation with full consent of the PAP	The compensation should always take into consideration the current market price of the affected plot/asset, the respective cost of adjacent similar plot/assets, and the cost of equivalent whenever applicable. In the case of not reaching agreement with the PAP on the amount of compensation, then the compensation shall be determined by the court which has the right to hire experienced and trust-worthy property assessors (valuators). Whenever there is property or assets within the to-be acquisitioned plot, then the acquisition should be for the whole property (plot, buildings, assets, etc.) identified and documented at the time of the plot evaluation, unless the owner is interested and willing to keep certain assets. If full acquisition is agreed, then the compensation should be for all acquisitioned land and property, while of the agreement is made to have the owner holding ownership of certain assets, then the cost of these assets is to be excluded from the valuation of the acquisition costs and compensation decided.
			Tenants and Users	Eligible to be provided with equivalent alternative to the lost shelter and/or business; and if necessary Eligible to livelihood assistance for transitional period	Based on the type of impact, those PAPs if displaced should be 1) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, vocational advantages, and other factors is at least equivalent to the advantages of the old site; and 2) Where necessary to achieve the objectives of the policy: a. offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and b. provided with development assistance in addition to compensation measures, such as land preparation, credit facilities, and training or job opportunities.
Partial loss of land &/or loss or damage of assets within the to be acquisition plot	LA	Permanent	Owners and Squatters	Eligible to satisfactory compensation with full consent of the PAP	Partial acquisition of land should be conditioned by (1) the plot area is too large and the affected part is marginal and on one side of it, (2) having the land area decided to be left and not acquisitioned fully functional in terms of area and dimensions without affecting any future plans for construction or use, and (3) the acquisition is with full consent of the respective owner.

Type of Impact	Resettlement Stressors	Duration of the Impact	PAP Category	Eligibility	Remarks
					<p>The compensation should always take into consideration the current market price of the affected asset, the respective cost of adjacent similar assets, and the cost of equivalent whenever applicable. In the case of not reaching agreement with the PAP on the amount of compensation, then the compensation shall be determined by the court which has the right to hire experienced and trust-worthy property assessors (valuators).</p> <p>Whenever there is property or assets within the to-be acquisitioned plot portion, then the acquisition should be for the property (land area, buildings, assets, etc.) identified and documented at the time of the plot evaluation within the land portion decided for acquisition, unless the owner is interested and willing to keep certain assets. If full acquisition is agreed, then the compensation should be for all acquisitioned land and property, while of the agreement is made to have the owner holding ownership of certain assets, then the cost of these assets is to be excluded from the valuation of the acquisition costs and compensation decided.</p>
Reduction in land/property market value due to the ROW (equal to the acquisition land area and/or the ROW area within the affected property/asset)	ROW	Permanent	Owners and Squatters	Eligible to satisfactory compensation with full consent of the PAP	<p>Reduction in property value due to Project ROW activities is equal to the market price of the land area where the ROW will enforce restrictions on construction and use within the set-back area or beyond it.</p> <p>The compensation should always take into consideration the current market price of the affected land, the respective cost of adjacent similar property, and the cost of equivalent whenever applicable. In the case of not reaching agreement with the PAP on the amount of compensation, then the compensation shall be determined by the court which has the right to hire experienced and trust-worthy property assessors (valuators).</p>
loss or damage of assets	ROW	Permanent	Owners and Squatters	Eligible to (1) restoration of the damaged asset to its original condition, or (2) satisfactory compensation with full consent of the PAP	<p>Damages to assets should be restored to its original condition and up to the satisfaction of the respective PAP. Financial compensation can only be considered/offered/negotiated if (1) the restoration of the damaged asset is not possible, (2) restoration to original condition fails and the PAP is justifiably not satisfied with such restoration, or (3) the respective PAP inform the Project during ROW negotiation that he, for justifiable reason, do not accept restoration and request compensation instead.</p> <p>Justifiable reasons are limited to (1) having the lost asset no longer relevant like for example restoration of cesspits and cesspools, (2) the lost asset interfere with the ROW and should not be restored in its original location, and/or (3) the lost asset cannot be resorted and productive as its current productivity within justifiable time frame like for example removing fruit trees that cannot be successfully trans-located and require more than three years to</p>

Type of Impact	Resettlement Stressors	Duration of the Impact	PAP Category	Eligibility	Remarks
					<p>restore its present productivity.</p> <p>The compensation should always take into consideration the current market price of the affected asset, the respective cost of adjacent similar assets, and the cost of equivalent whenever applicable. In the case of not reaching agreement with the PAP on the amount of compensation, then the compensation shall be determined by the court which has the right to hire experienced and trust-worthy property assessors (valuators).</p>
Loss of access to property / assets	Construction Activities	Temporary	Owners, Squatters, Residential Tenants and other Users	Whenever the loss of access results in proven economic loss cases to PAPs and with evident causality link to the project, then those PAP's are Eligible to compensation equal to the value of the loss	<p>Only through the RAP grievance mechanism, upon compensation claims and for proven economic loss cases with evident causality link to the project. Also, this should come after having all designed and possible mitigation measures by the ESMP implemented and found, for one reason or another, failing to mitigate such impacts including establishing alternative access and/or to rehabilitate the access.</p> <p>Evident on the claimed compensation should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>
			Businesses (owners and tenants)	Whenever the loss of access results in proven economic loss cases to businesses PAPs, the loss should be estimated upon occurrence and compensated for with the full consent of the respective PAP's	<p>Only through the RAP grievance mechanism, upon compensation claims and for proven economic loss cases with evident causality link may, but not necessarily be limited to, (1) impacts on productivity (e.g. above average death of poultry at poultry farms within the construction impact area caused by disruption of utilities or reduced in and out access to the farm), and (2) the business owner and/or employees loss of access to the business site which prevent them from maintaining business as usual.</p> <p>This should come after having all designed and possible mitigation measures by the ESMP implemented and found, for one reason or another, failing to mitigate such impacts including establishing alternative access and/or to rehabilitate the access.</p> <p>Evident on the claimed compensation (causality link to the project and evidence on economic loss occurrence and on economic value) should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>
Loss of income sources or means of	LA	Permanent	Tenants and other	Eligible to income restoration or livelihood	Though such an impact can affect owners, tenants and users, respective PAP's entitlement for resettlement measures under this specific Project are

Type of Impact	Resettlement Stressors	Duration of the Impact	PAP Category	Eligibility	Remarks
livelihood, whether or not the PAPs must move to another location			users	development measures and/or compensations	<p>mainly related to economic losses on tenants and users of the property who will need to find alternative location which can cost them higher and/or be less comfortable and productive compared to the property issue of LA.</p> <p>Applicable only through the RAP grievance mechanism. Evident on the claimed compensation (causality link to the project and evidence on economic/livelihood loss occurrence and on economic value) should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>
	ROW	Permanent	Owners, Squatters, Tenants and other users	Eligible to income restoration or livelihood development measures and/or compensations	<p>Loss of income and/or means of livelihood by limiting the owner free use of his property. This includes (1) reduced property market value, (2) actual removal of physical elements like warehouses, parking lots, etc. (3) actual removal of tress and vegetation, (4) prohibiting any type of construction with the ROW, and (5) prohibiting planting deep rooted tress within the ROW.</p> <p>Applicable only through the RAP grievance mechanism. Evident on the claimed compensation (causality link to the project and evidence on economic/livelihood loss occurrence and on economic value) should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>
	Construction Activities	Temporary	Tenants (businesses and residential) and other uses	Eligible to income restoration or livelihood development measures and/or compensations equivalent to incurred losses	<p>Proven economic loss cases may, but not necessarily be limited to, (1) impacts on productivity (e.g. above average death of poultry at poultry farms within the construction impact area caused by elevated noise levels, dusting), (2) loss of use value, (3) income reduction to below minimum daily income by business caused by customers loss of access to the business (e.g. supermarkets, service shops, etc.), (4) losing utilities like cesspools, disconnection of water and electrical supply, etc., and (5) Removal and deconstruction of assets and facilities within the ROW crossing the property like for example productive trees, house gardens, children play grounds, stairs, walls and fences, etc.</p> <p>Applicable only through the RAP grievance mechanism. Evident on the claimed compensation (causality link to the project and evidence on economic/livelihood loss occurrence and on economic value) should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>

Type of Impact	Resettlement Stressors	Duration of the Impact	PAP Category	Eligibility	Remarks
			Owners and Squatters	Eligible to income restoration or livelihood development measures and/or compensations equivalent to incurred losses	<p>Limiting the owners and squatters ability to implement their plans for using their lands and properties like for example their construction plans for new buildings or for expanding their houses, for planting trees (e.g. olive trees), water harvesting, water storage wells, stairs, etc. it worth mentioning that some of PAP's affected by similar impacts showed the RAP consultant during the consultation process their already existing plans for the construction of multi-story residential apartments building which will be certainly and significantly affected by the proposed ROW.</p> <p>Applicable only through the RAP grievance mechanism. Evident on the claimed compensation (causality link to the project and evidence on economic/livelihood loss occurrence and on economic value) should be made available by the grieving PAP to the Grievance Committee along with the grievance application. Failing to provide acceptable evidence will result in rejection of the grievance claim.</p>

11 VALUATION OF AND COMPENSATION FOR LOSSES

Based on the information available to date to the consultant, an initial estimation of the costs of the land acquisition and resettlement program for each case are provided in a separate document since asset valuation information are confidential, however, PAP's eligible for compensation for land acquisition and ROW impacts are entitled to access information relevant only to their respective cases.

The financial packages for compensating acquisition of land are estimated, for budgeting purposes, based on the market price. The market price was estimated based on three main sources of information: DLS data on plots market prices, information obtained from interviewed PAP's and expert opinion of land traders. These financial compensations should be negotiated with the respective PAP's and agreed on based on a written agreement.

All ROW cases are considered eligible for compensation against reduced property/plot value consequent to the construction of ROW within their respective plots and limiting development within these plots for an area of the plot equal to the ROW distance crossing the plot multiplied by the construction width. eligibility and entitlement to compensation for these cases is equal to the area of land within their respective plots where construction corridor is needed and restriction of any physical development within area will be strictly prohibited by the proposed project, and includes any Set-back areas left from the boundaries of the plot before obtaining ROW for the project within the plot.

Land price range (minimum and maximum), per square meter of land, were suggested based on market price suggested by DLS, land traders and the respective PAP.

For example, and as illustrated in **Figure 15**, ROW is planned to be arranged for a sewer over a length of 27 meters within Plots No 6347. Distance from the plot boundary 2.0 meters, depth to invert from 3.0 meters to 2.5 meters. Accordingly, trench width 75 cm, corridor width min 3.0 meters in case of no obstacles. As such, the ROW will be equal to the 3 meters plus the 0.5 meters abandoned from the distance between the start of the ROW and the plot boundary which will be of no use value for the owner. Accordingly the compensation for reduced plot value will be equal to the market price of an area of 94.5 meters (27 m X 3.5 m).

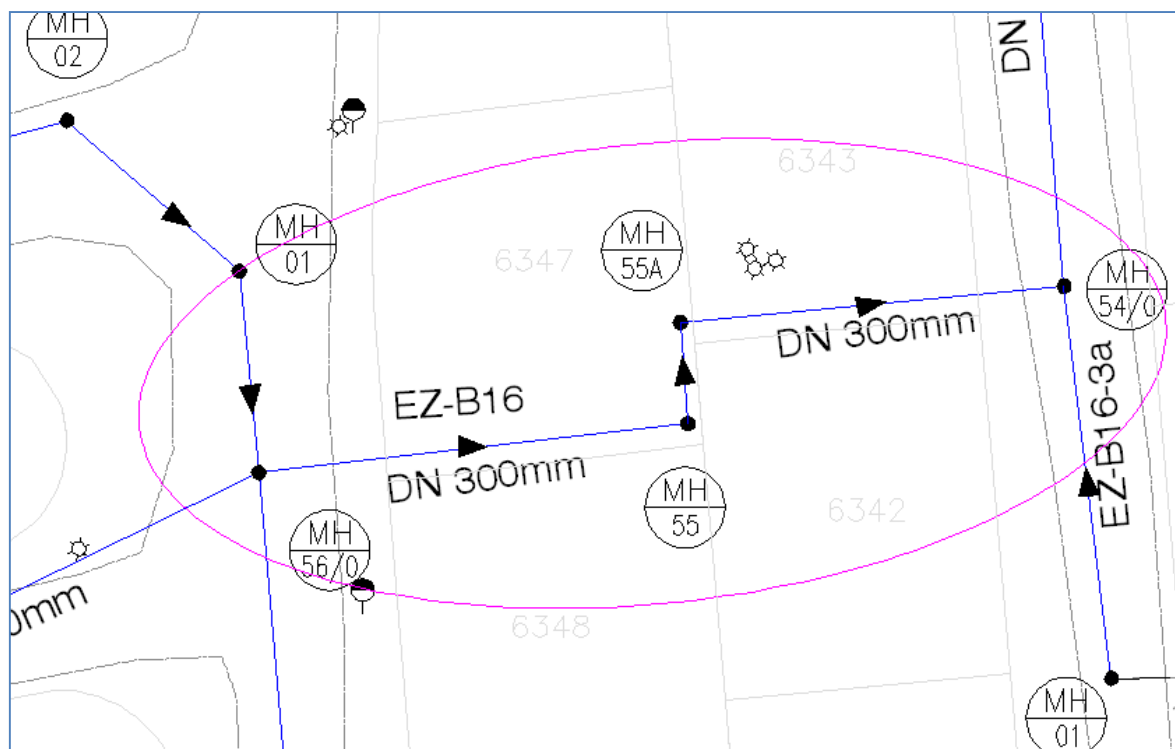


Figure 15: Example for ROW case

Compensations for loss of asset/property are estimated for the surveyed cases by this RAP based on the estimated costs for restoration whenever possible, and whenever restoration is assumed not possible then the estimation is based in the cost of equivalent. **Table 18** provides the estimated cost of equivalent for the identified assets likely to be lost or affected by the proposed project within the identified plots subject to ROW impacts. Calculation notes are provided for each case including the type of effect expected, the measurements of the possibly will be affected asset and the unit cost of these assets.

Table 18: Assets valuation assumptions (based on asset types identified to be affected by the Project)

Asset	Unite	Remarks	Unit Value (JOD)
Septic Tank	Constructed underground tank (3 X 4 X 2 to 3 meters) lined with cement	Per unit tank	1000
Retaining Wall (cemented)	Cubic meter		400
Fencing walls (cement blocks)	Square meter	20 centimeters blocks	12
Stairs (Cemented)	cubic meter	Every 10 stairs needs approximately one cubic meter of cement	400
Pavement (regular / standard Jordanian tiles)	Square meter	20 X 20 centimeters tails	20
Olive trees (4 to 5 years old)	Olive tree		150
Berry trees (4 years old)	Berry tree		150

Palm trees (7 years old)	Palm tree		120
Kina Trees (3 years old)	Kina tree		100
Fig trees (9 years)	Fig tree		200

However, for a number of cases the estimation of costs and budget for expected losses related to loss of assets could not be arranged due to shortage of information about the specific plot affected, its assets and land value and the expected losses.

Economic loss of business, as discussed in 5.3.3 on Impacts on Businesses located within the Project Corridor, are not expected since such loss risks are dually accidental and related to non-compliance with the applicable construction codes and with the mitigation measures provided in the ESIA. Therefore, business are not entitled to compensation unless mitigation measures fail and the business meets the criteria specified in 10 on Eligibility, and as such, any loss of income by businesses shall be addressed as grievances and shall be investigated for eligibility against the above mentioned criteria, and compensation shall be estimated and valued upon occurrence .

A contingency budget line is provided in the RAP implementation budget for grievances which include eligible business claims of loss of income. However, it should be stressed here that the contractor or sub-contractor causing such impacts due to his non-compliance with the ESMP mitigation measures and the Project codes and guidelines shall be responsible for his non-compliance and its associated economic losses by respective PAP's.

12 RESETTELEMENT MEASURES

The sections below discuss the resettlement measures designed for this particular project in compliance with the World Bank OP 4.12 and applicable national legislations in Jordan. Information on consulted PAPs agreement, in principle, to the different types of resettlement measures are presented on case-by-case basis in **Appendix 3** and **Appendix 4**.

12.1 Financial Compensation

Financial compensation packages can be categorized into two groups:

1. Planned financial compensation for identified and assessed involuntary resettlement cases; and
2. Financial compensation for accidental and unplanned involuntary resettlement cases.

The planned financial compensation is mainly recommended for:

- Acquisition of land plots for the identified four cases which is planned and intended to follow seller/buyer agreement;
- Reduction (partial loss) of plot market price for ROW cases incurred by restricting the use of land within the ROW;
- Expected/assessed loss of assets and properties located along the ROW within the respective plot. This include stairs, house gardens (trees and vegetation), paved/tiled grounds, retaining walls (cement and metal), fencing walls (cement blocks), cesspits and cesspools, wastewater systems, water supply pipes, etc.

With regard to compensation for loss of property or assets, it should be made clear that:

- The tender documents for construction works require the contractor to restore the ROW to pre-construction conditions. A landowner cannot receive compensation for a an asset damaged or lost by the construction works AND have it rebuilt by the contractor.
- Assets loss related compensations are suggested only as a second option offered through negotiating respective PAP (during the consultation/negotiation phase and before the commencement of construction activities) if they are not statisfied with the first option of restoring the assets and properties expected to be affected by the Project construction activities within the repective plot ROW.

Financial compensation packages for eligible cases are estimated based on the valuation methodology discussed in 11. The details for these packages are provided in **Appendix 5: RAP Costs and Budget (Confidential Annex)**.

Compensation terms include the following:

1. Full documentation of document describing the targeted/affected plot, properties within the plot, assets affected, etc., this should also be supported with images taken for the site showing all its elements and DLS registration sheet for the same plot. Such documentation should be annexed to the agreement with the respective PAP and shall be signed by him when he agrees on and sign the compensation agreement;
2. Respective owner of the plot (PAP) needs to inform MCA if there is any other PAP's holding ownership, rent or use rights of the plot or any property within it. Such information shall be arranged in the form of declaration stating the specific rights of those other PAP's, if any, which shall be signed by the respective PAP (owner) and provided as annex to the compensation package agreement. This statement should clearly states that all known owners, users, renters, etc have been disclosed by the PAP to MCA and, any newly discovered PAP should file a claim in the Grievance Procedure and be compensated fairly by MCA.;
3. All compensation negotiations should be based on the market price, comply with World Bank OP 4.12, transparent and documented;
4. Compensations should be negotiated with only the respective PAP's and/or their legal representations based on power of attorney accepted in Jordan;
5. Advancement of compensation packages shall be against the signed agreement between the projects (MCA) and the respective PAP;
6. If owners of respective plots were not identified or negotiated for reasons beyond MCA capacity, then the estimated/budgeted compensation shall be reserved for the PAP in custody of MCA as long as MCA is legally operation based on the agreement with the Government of Jordan, and afterward shall be reserved at WAJ. Accordingly, the respective PAP will also be entitled for interest on the reserved amount based on Jordan Central Bank interest rate;
7. If owners of respective plots show strong refusal to the proposed ROW or land acquisition (based on voluntary selling of the plot for negotiated price based on market price), or are not satisfied with the proposed compensation and rejects further negotiation or other alternatives, and when negotiations reach negative conclusion, then MCA is to deliver the file with all supporting documents to WAJ to arrange for obtaining ROW rights or acquisition the land following

Jordanian procedures with the condition of compliance with the World Bank OP 4.12 and to have the allocated compensation package reserved at WAJ as restricted fund for this case;

8. Though compensation advancement terms and dates should be negotiated with the respective PAP's, it is highly recommended that all payments are to be made in full and at least two months before the commencement of the construction works;
9. PAP's are entitled to interest on the compensation amount agreed with MCA whenever there is delay in advancement of the agreed amount beyond the pre-set advancement date over a period of one month, and based on the interest rate set by the Central bank of Jordan; and
10. Documentation of PAP's receivable of compensation packages as per of the agreement shall be properly arranged in at least three original copies which shall be signed by the respective PAP, one kept at the finance department of MCA, one with the MCA legal department and one with the Environmental and Social Director office. At least one of these copies should be forwarded to WAJ for documentation post to MCA completion of its mission and termination of its agreement with the government of Jordan.
11. Both the male and female (husband and spouse of the house) will be informed of and asked to discuss the options of compensation, and made aware of the final compensation determination. Involvement of the head male and female of the PAP household will be encouraged to jointly collect the entitlements and monitoring of compensation delivery will be done in such a way as to ensure that men, women and children are not disadvantaged by the RAP process.

12.2 Rehabilitation of affected assets

The project construction activities are expected to impact some of the assets along the ROW within the affected plots. Assets were identified and assessed for plots surveyed during RAP reparation phase, however, the assets within the plots which are not yet surveyed are to be identified and assessed.

Also, changes like construction of new assts within the surveyed sites are expected since the surveys were completed in mid August 2011. Therefore, assessment of assets should be revisited as early as the RAP implementation is launched which need to update RAP information on assts for all identified plots.

As for resettlement measures related to affected assets, the RAP suggests, after consultation with the MCA team, having affected assets restored by the respective construction contractor to its original condition as this condition is already provided in the Technical Specifications of the Project Construction Bidding Documents. If the restoration option is considered by the respective PAP as unsatisfactory, and upon his request, the asset within the respective plot which have been identified to be defiantly subject to

damage by the ROW construction activities then the owner should have a choice as to if he wants compensation for any destroyed (and replaceable) asset or restoration. In such cases of compensation for destroyed assets, it should be compensated for before the launching of the construction activities, and therefore, restoration measures are considered irrelevant to those cases and shall not be implemented by the contractor.

Accidental loss or damage to assets remains possible as either by having new assets constructed between the time of preparing the RAP and the compensation time, or by accident due to contractor's misconduct and incompliance with the construction codes and the ESMP. Some of the related examples can be:

1. Accidental disruption of utilities and services (water supply, electricity supply, sanitary services, telecommunication services, etc.). Those are considered to be temporary and related effective mitigation measures for these impacts are elaborated in the Project ESMP.
2. Damaging and/or removing/filling of cesspits and septic tanks within the plots subject to ROW. This impact is expected to last up until the completion of the project construction activities and making the services granted within the plot area. Therefore, construction of replacement septic tank (lined and cemented) should be arranged before the existing septic tank is removed, and or offering / advancing compensation to the respective PAP at least one month before the commencement of the sewer/trunk line construction within the plot to allow him preparing alternative septic tank outside the ROW proposed within the plot. Estimation of costs for these measures is provided in the Cost and Budget Report Section below.

For new assets which are constructed by the owners of the plots after the RAP surveys, and as avoidance measure, the RAP implementation team should inform officially all PAP's about the ROW plans within their respective plots and clearly request them not to construct any assets within the corridor. This should also be documented as early as possible during the negotiations with the PAP's and should be included in the related agreements.

If the construction of the assets is conducted before the launch of RAP implementation and before requesting restrictions on all constructions and use of the ROW corridor within the respective plots, then those are considered eligible for compensation based on the cost estimation assumptions provided in **Table 18**.

Impacts and damages caused by contractors in the form of changes to designs, non-compliance with the requirements or as accidents should be the responsibility of the contractor who caused the damage, based on the measures suggested in the ESMP. Affected PAP's are eligible to claim compensation for such losses through RAP Grievances Mechanism.

12.3 Income Restoration Programmes

Based on the to-date available information on plots and PAP's identified being subject to involuntary resettlement by the proposed project, it is understood that none of the PAP's are eligible for income restoration programmes as stipulated in OP 4.12 under sections B and C of Article 6.

For the new cases which were identified after the preparation of the Draft RAP in replacement of plots which were found to be of severe impact on PAP's, income restoration requirements are to be assessed as early as possible during RAP implementation phase. Income restoration programmes are to be developed and implemented whenever applicable under OP 4.12 under sections B and C of Article 6. Therefore, a provisional budget item of 10% of the total RAP implementation cost will be allocated as contingency budget line for income restoration (if needed) and other RAP implementation emergency expenditures.

12.4 Site selection, site preparation, and relocation

Relocation of PAP's has not been identified for this Project.

Accordingly, RAP measures related to site selection for relocation of PAP's, site preparation and physical relocation are considered irrelevant to this project.

12.5 Housing, infrastructure, and social services

As discussed above in section 12.4, relocation of PAP's has not been identified for this Project.

. Accordingly, RAP measures related to housing of PAP's, infrastructure and social services are considered irrelevant to this project.

12.6 Environmental protection and management

Relocation of PAP's has not been identified for this Project. Accordingly, RAP measures related to environmental protection and management concerned with PAP's relocation are considered irrelevant to this project.

12.7 Community participation

This Project launched RAP-related consultations at the community level through three conducted workshops, in addition to focus group discussions with small groups and one-on-one consultation during the RAP field survey.

Some of the identified PAPs were not surveyed or consulted due to one or more reasons (see **Table 24**), therefore, the consultation process should be continued to cover all identified PAPs. Negotiation with the PAPs, those consulted and those who should be consulted should also be continued until both parties reach agreement on the acquisition of land and/or ROW as governed by the applicable national legislations and the World Bank OP 4.12.

All consultations, surveys and negotiations should be properly documented and reported. Consideration of engineering alternatives should be envisaged whenever applicable, and alternatives to avoid minimize and efficiently mitigate and manage involuntary resettlement impacts should always be negotiated with all directly and indirectly affected PAP's, and shall be implemented with maximum attention to the need to improve PAP's livelihood, or at least approach net negative impact by the proposed Project.

The consulted and surveyed PAPs were found to be not fully aware of their rights and obligations under the applicable national legislation and the World Bank OP 4.12. It is important to ensure that all PAPs are provided with the related necessary information before the conclusion of the negotiations into written agreements.

It is very important to note that those who could not to be consulted to date should be consulted during the RAP implementation phase. Their entitlements under the agreed resettlement framework for the project should be explained to them.

The RAP findings should be disclosed in Arabic in the office of the project management unit at various locations in Amman and Zarqa. The availability of the RAP document in Arabic (or at least summary of findings) shall be made public through an advertisement in a popular local newspaper.

Consultations related to relocation of PAP's are irrelevant to this Project since such relocation has not been identified for this Project.

12.8 Integration with host populations

As discussed in Section **12.4**, relocation of PAP's has not been identified for this Project.. Therefore, RAP measures related to integration with host populations are considered irrelevant to this project.

13 GRIEVANCE REDRESS MECHANISMS

A project-specific grievance redress mechanism should be established under which affected people with complaints related to the land acquisition and resettlement process can approach the responsible organization/person to redress of their claims.

13.1 Possible / Expected Grievance Categories

Grievances can include one or more of the following:

1. Unidentified/overlooked PAPs;
2. Amount of compensation allocated/offered for acquisition of land, ROW impacts;
3. Overlooked assets during the valuation;
4. Other damages caused by construction activities/accidents;
5. Delay in payments; and
6. Delays in construction (prolonged impacts).

Other type of grievances are possible but are assumed to be more related to the overall performance of the contractors and as will compliance with the environmental and social management plans. This includes loss of services and infrastructure like electricity cut, cut of water supply, loss of sanitary services, etc.

13.2 Grievances Management Arrangements

13.2.1 Functional Structure

Functional organization for the management of grievances includes four main levels, as illustrated in the Figure below:

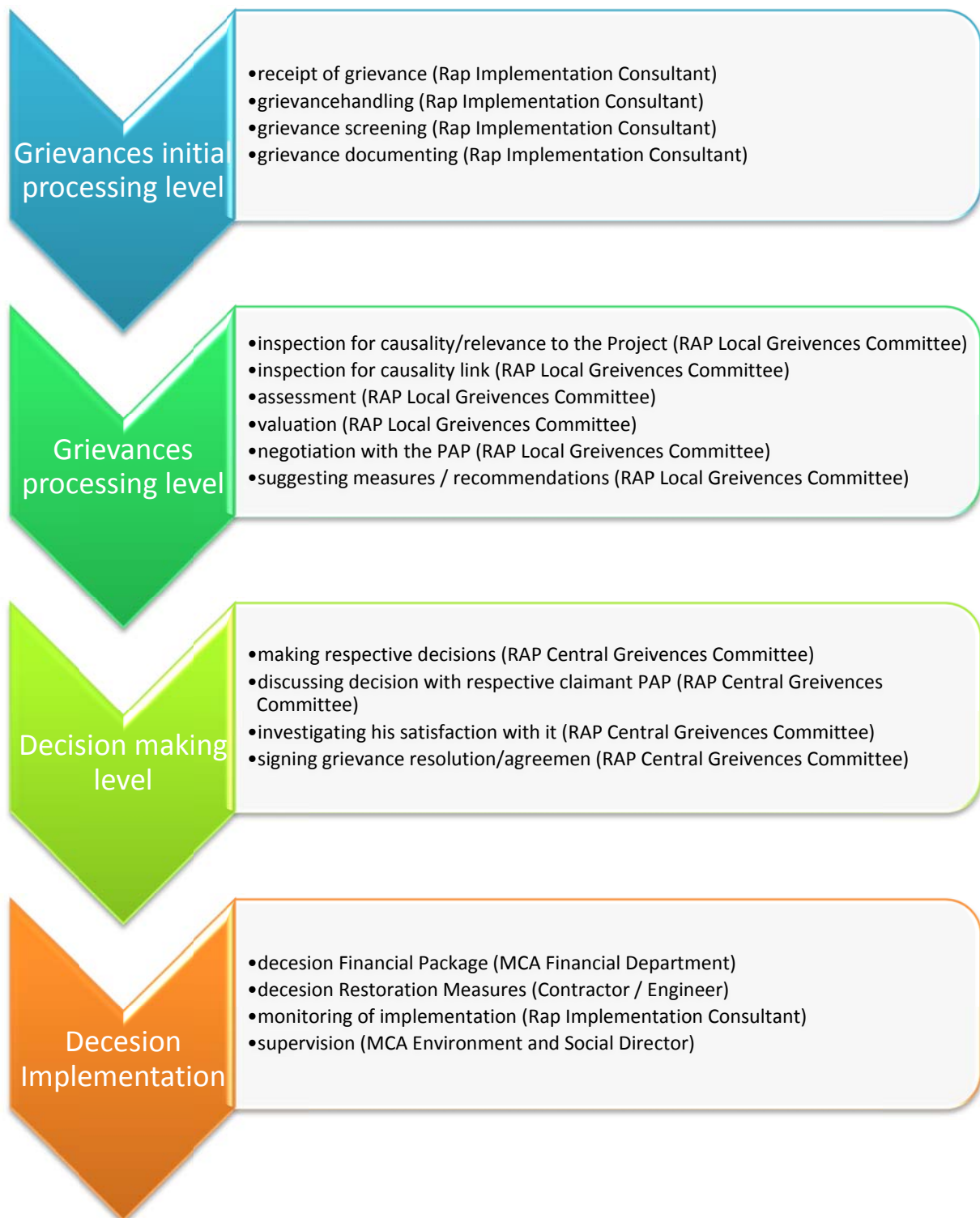


Figure 16: Proposed functional organization levels and responsibilities for the management of grievances

13.2.2 Grievance Committees Establishment and Responsibilities

Two committees are suggested to be established for the management of RAP greivences, those are (1) RAP Central Greivences Committee, and (2) RAP Local Greivences Committee (See also **Section 14: Organizational Responsibility**).

The RAP Central Grievances Committee is composed of the following members:

1. MCA Chief Executive Officer (CEO) (Committee Chairperson)
2. MCA Environment and Social Director (Member)
3. MCA "P2" Project Manager (Member)
4. Rap Implementation Consultant (Committee Secretary)
5. Representative of respective Governorate Office (Member)

The local committee meetings include two types of meetings:

1. Scheduled monthly meetings
2. Emergency meetings

Establishing Project RAP Grievances Committee for each package area which is composed of the following members:

1. MCA Environment and Social Director (Committee Chairperson)
2. Rap Implementation Consultant (Committee Secretary)
3. Project Engineer – Environmental and Social Management Leader (Member)
4. Representative of respective District (Member)

The local committee meetings include two types of meetings:

1. Scheduled bi-weekly meetings
2. Emergency meetings

It is the responsibility of the Rap Implementation Consultant to receive, document and file all grievances received on daily basis. This process should include screening of these grievances to assess the need for immediate action or for calling for committee emergency meeting.

Scheduled meetings agenda shall be:

1. Discussing progress, efficiency of grievances measures and PAP's satisfaction respective to grievances cases dealt with following management decisions,

2. Reviewing new grievance applications received by the project and recommending actions / measures to the top management, and
3. Preparing summary report on grievances management to MCA management.

Emergency meetings are suggested whenever there is urgent cases in need for immediate action (cases which are cases require immediate action to allow contractors immediate proceeding of his work.

13.3 Grievance Mechanism

The Figure below illustrates the grievance mechanism for this Project. It illustrates key processes and responsibilities, in addition to the time framework.

All claims shall be addressed to the RAP Implementation Agency which is in the case of this Project the MCA, and shall be submitted to MCA Environmental and Social Director or a third party hired by MCA (RAP Implementation Consultant). Related contact details and procedures shall be announced and informed to the respective PAP's. Such claims shall properly document, reported and filed using standardized form (**Figure 18**).

Whenever the query/claim is communicated by the respective PAP to other MCA employee, contractor or sub-contractor then the communicated person should establish contact between the claimant PAP and the RAP Implementation Consultant in order to:

- Ensure proper documentation and reporting of the query/claim
- Ensure proper documentation and reporting of the PAP information (identity and contact information)
- Ensure that the PAP provide all needed information and details, and sign the form
- Proving the claimant PAP with proof of receipt of the claim



Figure 17: Proposed grievance mechanism

Claims shall be reported by the MCA representative (RAP implementation person and recipient of the claim) along with the RAP implementation person recommendation to the MCA Environmental and Social Director for compliance check with applicable MCC/MCA guidelines, World Bank OP 4.12 and with national legislations. Subject to compliance check, MCA Environmental and Social Director comment on the RAP implementation person recommendation and suggest decision which shall be submitted to MCA CEO for final decision.

If the affected person is not satisfied with the results, he/she can approach the MCA Environment and Social Director for negotiation. Such negotiations shall be made in the presence of MCA legal representative (Attorney of Law) who needs to explain applicable national legislations and World Bank requirements to the claimant, and to arrange for the official ratification of compensation agreement following the negotiations to be signed by the two parties. The agreement shall be signed in the presence of the lawyer.

In particular for grievances related to PAP's unsatisfaction with land acquisition negotiations and those related to the amount of compensation, the negotiation with the claimant PAP shall be arranged in the presence of the Project Involuntary Resettlement Committee discussed in the Organizational Framework below.

Committee decisions are considered binding to the Project as long as it fulfills respective national legislations, MCC/MCA guidelines and World Bank OP 4.12. Decisions should be made consistent with the RAP and in compliance with WB OP 4.12.

The decision of the Project Involuntary Resettlement Committee shall be provided in a maximum duration of one month and always before the commencement of construction activities. If the affected person is still not satisfied, they can lodge a case with the civil court of law.

13.4 Training

Since there is limited experience with OP 4.12 implementation in Jordan, two batches of training are suggested to be delivered by the RAP Implementation Body to the Grievance Committee, as follow:

1. The first training will provide case studies on potential grievance issues faced by PAPs and explain the terms of reference and duties for each of the committees. The main area of training is on the parameters governing acceptable compensation and introducing members to the principles of OP 4.12.
2. The second training will be on the use of the grievance forms.

13.5 Awareness and Communication

PAP's should be informed about RAP grievance mechanism through direct communication and through distributing summary sheet presenting to the grievances steps and the related contact information. Their level of awareness about their rights under applicable national legislations and WB OP 4.12 is to be raised through workshop and publications.

Communication should be maintained between the RAP Implementation Consultant and the PAP's from one side, and between the Grievance Committees, MCA Environment and Social Director, Project Manager and the RAP Implementation Consultant from the other side.

13.6 Record Keeping and Reporting

Grievances redress cases, procedures applied, decision made and actions implemented shall be reported by the RAP Implementation Person on monthly basis to the MCA Environmental and Social Director. Summary of this report capturing pending cases, priority actions to be taken, results, financial issues and plans for the following month shall be reported on monthly basis to MCA CEO by MCA Environmental and Social Director.

Quarterly reports shall be prepared and submitted following the above listed flow of reporting responsibility to MCC for information and compliance check.

Grievances management reports should be also copied to the Project Engineer for information and monitoring. Another copy is to be filed at MCA.

Record keeping and documentation of the grievances management documents shall be the responsibility of the RAP Implementation Consultant.

The Project Engineer has the responsibility of oversight on RAP implementation. Related record keeping shall be maintained by the Engineer.

13.7 Timing

The claims shall be settled within a period of 30 days from the date they are lodged.

Once the RAP Implementation Consultant receive a written submission from a PAP then he needs to process the application and communicated to the local committee. The local committee must convene and answer the query within 14 days. If the query is not answered to the PAP's satisfaction they can

proceed to the next level – Central Committee – and this committee must give a written response within 14 days.

		Grievance Reference Number			
Prepared by				Date	
Reported to				Date	
Grievance Information					
Date Received:				Submitted by	
Subject:					
Details:					
Causality Link to the project			Causality evidences		
Decision					
Follow-up actions					
Ratified by:				Date	
Other Notes					
1					
2					
3					
4					
5					

Figure 18: Proposed grievances recording form

14 ORGANIZATIONAL RESPONSIBILITY

14.1 Organizational Framework

The institutional responsibility for implementing the Resettlement Action Plan rests with the MCA and WAJ, who will carry out this responsibility in coordination with the project contractor, with DLS and with the local government units (Zarqa Governorate, Zarqa Municipality, Russiefah Municipality and Al Hashimiyah Municipality). MCA will be responsible for preparation of resettlement instruments, payment of compensation and provision of other assistance to affected people, covering the cost of the land acquisition/ resettlement program, consultations with and participation of affected people in the design and implementation of the land acquisition and resettlement program, establishing and managing the grievance redress program, and monitoring and evaluation of resettlement implementation.

Within MCA Organizational and Functional Structures, there are five main functional position delegated specific responsibilities for RAP implementation and supervision, having the Environmental and Social Director as the focal point for the RAP overall implementation. Those functional positions and their responsibilities are as follow (**Table 19**):

Table 19: Functional responsibilities related to RAP implementation within MCA Structure

Functional Position	Position Title	Functions related to RAP Implementation
Chief Executive	MCA Chief Executive Officer (CEO)	The top management authority for the organization and as such the top-management governance, supervision and decision making reference for the Project related RAP implementation;
Director	Environmental and Social Director (Assisted by MCA Social and Gender Officer)	The management representative for environmental and social management issues for all MCA projects and activities. Responsible for the overall supervision, inspection of processes and implementation compliance with applicable MCC guidelines and polices, and compliance with national legislation, direct management and guidance of RAP implementation, and integration of gender in RAP implementation.
	Communications and Outreach Director	Contribute to the supervision and advice of RAP communication and awareness activities, and inspection of its compliance with MCA/MCC guidelines.
Project Management	Wastewater Systems Project Manager	Overall management of the Project. As such, the Project Manager is responsible for RAP integration with Project implementation plans, and for taking part in the monitoring and grievance mechanisms in coordination with the Environmental and Social Director.
Accounting	Accountant	Financial procedures related to RAP implementation including those related to advancing compensations.
Advisory	Legal Advisor	Providing legal advice, guidance and follow up related to the preparation and ratification of RAP related agreements with PAP's, preparing draft legal documents related to RAP implementation and land acquisition, following up legal procedures with DLS ensuring its compliance with national legislations, and representing MCA in related court cases.

Under MCA awarded contracts, MCA will hire two companies to provide services related to Project overall implementation and to RAP implementation, those are:

- Project Engineer (also known as the Project Management Company – PMC)
- RAP Implementation Team (Company)

The Project Engineer (also known as the Project Management Company – PMC) is a third party hired by MCA for the overall management and supervision of reinforcement and expansion project. This company will be responsible for, in addition to their engineering and management responsibilities, the overall monitoring and evaluation of RAP implementation. They are requested to incorporate the Grievance Mechanism within their management system, integrate RAP results in their action plans for scheduling construction activities, supervise contractors and sub-contractors compliance with the ESMP mitigation measures related to impacts on PAP's and business, enforce penalties for non-compliance, and also take part in Grievance Committee.

MCA will hire RAP Implementation Team (Company) to take charge of RAP implementation responsibilities up to the level of concluding agreements with respective PAP's. The company responsibilities are discussed in detail in **Section 14.2** below.

Unless seller/buyer agreement is reached between MCA and owners of plots intended to be acquisitioned for the purpose of the project, all land acquisition cases are in need, and shall be receiving, approval from the cabinet of ministers which has pre-requisites and procedures described in **Section 8.1.1 (page 8-50)** the land acquisition process is requested by the Land Acquisition Law to be arranged and carried out by DLS however the Project owner shall be responsible for compensating the respective PAP's.

Accordingly, whenever seller/buyer agreement is not reached for any land plot suggested for acquisition by the proposed project, then WAJ will be responsible for arranging for and completing the land acquisition procedures as governed by Jordan Land Acquisition Law, while MCA will be responsible for the advancement of the compensation following related procedures.

For ROW cases, MCA will be responsible for the implementation of this RAP. WAJ will be responsible for providing authorization to MCA and to provide necessary support for RAP implementation in compliance with applicable national legislations, World Bank OP 4.12 and MCA guidelines.

For the purpose of this Project, it is recommended to establish a small committee constituting representatives of WAJ, MCA, DLS and Zarqa Governorate to coordinate the acquisition process and to take part in related negotiations with PAP's and ratification of related agreements.

Monthly progress reports shall be prepared and submitted by RAP Implementation staff, MCA Environmental and Social Director and the Finance Manager to their respective line management (**Figure 19**). Exchange of information between MCA RAP implementation staff, finance management, legal advisor and MCA Environmental and Social Advisor shall be established and maintained.

For Grievance Mechanism, two committees are suggested to take charge of processing claims and grievances, coordinating response actions, providing recommendations for compensation decisions and following up implementation of related decisions. The first committee is the Local Grievance Committee and the second is Central Grievance Committee. The responsibilities and procedures for both are discussed in **Section 13.2** titled "**Grievances Management Arrangements**".

MCA needs to implement this RAP and to ensure that all OP 4.12 requirements are met. Therefore, the following organization structure is suggested (**Figure 19**).

WAJ Responsibilities include:

1. Ensuring that MCA is officially delegated the authority to implement RAP following applicable national legislations;
2. Providing political support to MCA implementation of the RAP;
3. Making the necessary arrangements, up to the satisfaction of MCA/MCC related guidelines and the terms provided in this RAP, for the management of the reserved compensation payments for (1) complex land acquisition cases and for (2) complaints about accidental construction damage that are not completed for one reason or another before the end of the Compact. WAJ is responsible for ensuring that payments to be made to those should be reserved in special escrow account in government treasury and have it advanced to eligible PAP's following the same procedures applied by this RAP.

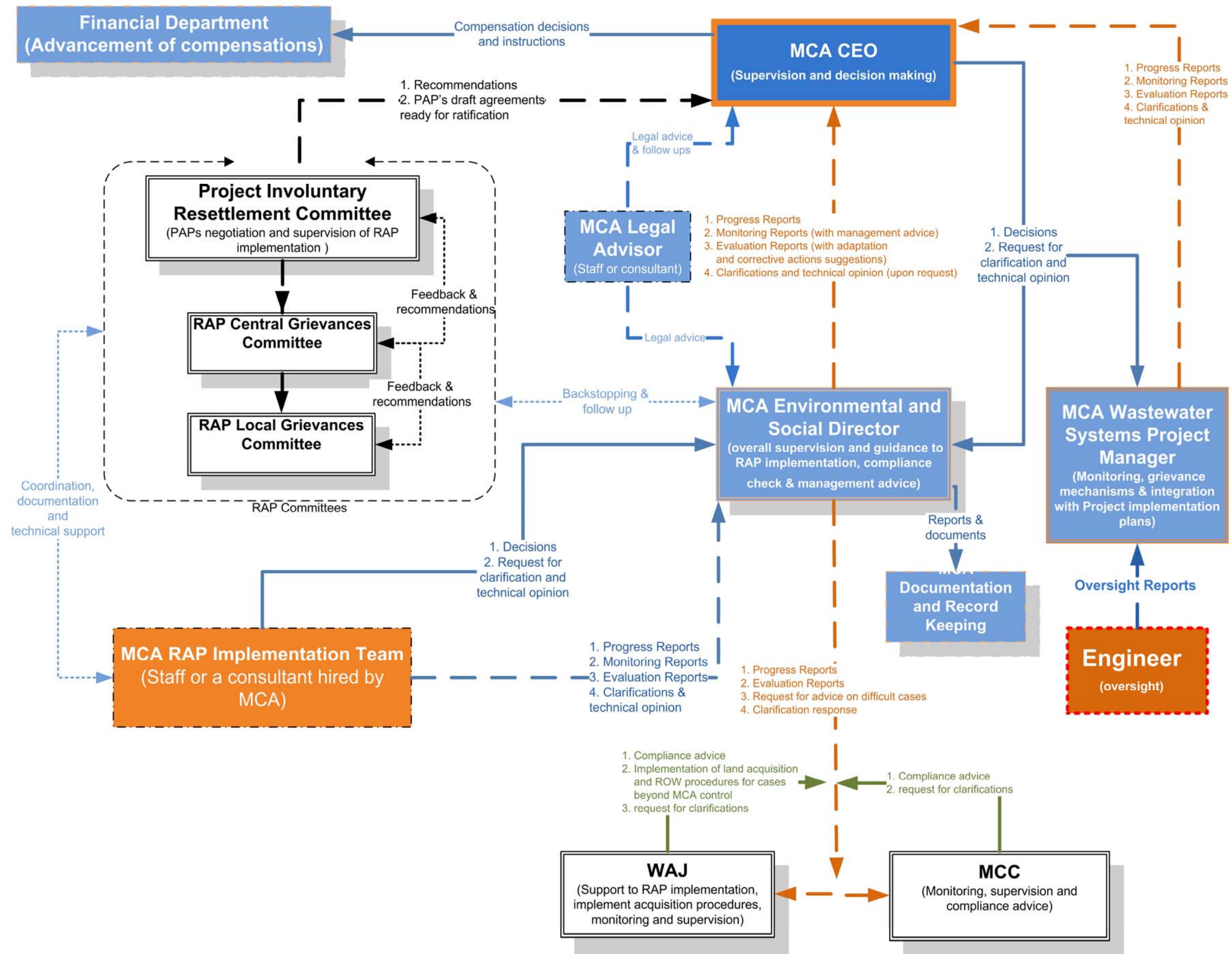


Figure 19: Proposed RAP implementation organization structure

14.2 RAP Implementation Team/Consultant Responsibilities

RAP implementation responsibilities are:

1. Prepare RAP implementation work plan and actions register;
2. Maintain day-by-day update of the RAP implementation actions register;
3. Coordinate, facilitate, document and report on all RAP implementation related actions including, but not necessarily be limited to: PAP's consultation and negotiation, ratification of acquisition/ROW agreements with PAP's, timely advancement of compensation payments; PMC and Contractors compliance with the RAP and ESMP mitigation measures, risks and occurrence of impacts on PAP's and their properties (including those accounted for in the RAP and those not accounted for), PAP's grievances and its management; impacts on PAP's livelihood; etc.;
4. Establish and firmly apply RAP implementation procedures and prepare related forms based on the RAP action plan;
5. Gather information from DLS, municipalities and other related governmental sources to fill information gaps related to the plots identified to be subject to acquisition or ROW. This includes location details (basin, village, etc.), ownership information, parcellation information, area, etc.;
6. Conducting filed survey of the plots which was not surveyed during the RAP preparation phase;
7. Carry out PAP's consultation with the PAP's who were not consulted during the RAP preparation phase, and maintain efficient communication with the affected PAP's during the lifespan of the project;
8. Arrange draft acquisition/ROW agreements with PAP's and discuss its terms of respective PAP's
9. Coordinate the acquisition/ROW negotiation committee meetings and prepare draft minutes of meetings to be reviewed and ratified by the committee members;
10. Monitor the acquisition/ROW negotiation committee compliance with the World Bank OP 4.12 and with applicable national legislations, provide technical advice whenever necessary and acquire MCC guidance whenever there is a possibility of non-compliance with the WB OP 4.12;
11. Prepare and maintain periodic update of PAP's profiles;
12. Assess involuntary resettlement risks and impacts by any currently unforeseen changes to the layout and rout of the proposed project, and suggested effective and adequate actions in compliance with the World Bank OP 4.12 and the nationally applicable legislations;
13. Establish and maintain effective communication, follow up and reporting with the PMC focal point (possibly the environmental and social management officer/engineer);
14. Establish and maintain effective reporting to MCA/MCC (supervisor/line manager);

15 COST AND BUDGET

The total estimated budget for RAP implementation is calculated as follow:

Budget Range	Budget (US\$)
Calculated	1,978,158.32
Minimum Budget	1,582,526.66
Maximum Budget	2,373,789.99

As it is indicated above, estimated budget is provided based on the calculated cost for every budget line. The minimum budget calculated based on DLS minimum unite price for each land plot, and based on 80% of the calculated assets restoration costs. The maximum budget calculated based on DLS maximum unite price for each land plot, and based on 120% of the calculated assets restoration costs. The details on calculations are provided in below sections.

It should be noted that the staff time cost for other MCA, MCC and WAJ staff time is not included.

The estimated cost for RAP implementation at the case level for each specific involuntary resettlement case is provided in a confidential annex to this RAP, however, PAP's entitled for compensation are entitled to access information related only to their respective cases and plots. The presentation of such information should be upon written by the respective PAP or his legal representative, and such information is to be shared within three to five working days from the date of the request, and at least two working days before the agreed negotiation date.

The breakdown of budget is provided in **Table 20**.

Table 20: Estimated RAP Implementation Budget

Budget Line No.	Budget Item	Estimated Budget (JOD)			Notes
		Calculated	Minimum Budget	Maximum Budget	
1	Resettlement Measures				
1.1	Financial Compensation Measures				
1.1.1	Land Acquisition	250,470	200,376	300,564	
1.1.2	Loss / Reduction of Land Plot Market Price	403,530	322,824	484,236	
1.1.3	Loss of assets	4,172	3,338	5,006	For surveyed plots only
1.1.4	Restoration of Affected Assets	2,086	1,669	2,503	Provisional for the to be surveyed plots and for emergency cases (e.g. new constructions after the completion of the survey), calculated on percentage basis (50% of the estimated loss of assets)
1.2	Income Restoration Programmes	12,524	10,019	15,028	Provisional contingency budget line estimated as 5% of the land acquisition budget
1.3	Site selection, site preparation, and relocation	-	-	-	Not Applicable
1.4	Housing, infrastructure, and social services	-	-	-	Not Applicable
1.5	Environmental protection and management	-	-	-	Included in the ESMP implementation budget
1.6	Community participation	-	-	-	Included in the RAP Implementation Team - Staff Time Budget Line
1.7	Integration with host populations	-	-	-	Not Applicable
1.8	Grievance Redress Mechanisms	28,000	22,400	33,600	Awareness, training, communication, transportation, per diems for Governorate/District representative and logistics costs

Budget Line No.	Budget Item	Estimated Budget (JOD)		Maximum Budget	Notes
		Calculated	Minimum Budget		
2	RAP Implementation Team - Consultancy Company Fees	424,920	339,936	509,904	Outsourcing, excluding the staff time for MCA full time staff. Estimated based on US\$ 20,000 per month for total of 30 months (12 months first year, 8 months on the second year, 6 months on third year, and two months for years four and five)
3	RAP Implementation logistics	12,500	10,000	15,000	e.g. Announcements in newspapers for acquisition cases, acquisition of data, office support, etc. estimated based on JOD 2500 per year for five years
4	Involuntary Resettlement (Negotiation) Committee Perdiems	40,000	32,000	48,000	Estimated based on having five members other than MCA staff, 80 meetings, JOD 100 per meeting per member
5	Audit services	40,000	32,000	48,000	Annual audit by a third party for technical, administrative and financial matters related to RAP implementation, estimated at JOD 8,000 per year for five years
Sub-total (JOD)		1,218,202	974,561	1,461,842	
6	Contingency	182,730	146,184	219,276	15%
TOTAL (JOD)		1,400,932	1,120,745	1,681,118	
TOTAL (US\$)		1,978,158	1,582,527	2,373,790	Exchange rate US\$ 1 = JOD 0.7082

16 MONITORING AND EVALUATION

Monitoring and evaluation of RAP implementation is of high importance and is needed to be properly designed and implemented. Monitoring is suggested to be for both implementation process and results, and to be carried out against at least the following parameters:

IV. General parameters

- i. Overall compliance with related national legislations;
- ii. Overall compliance with the World Bank OP 4.12 and respective MCC/MCA guidelines;

V. Process parameters

- i. Full and proper documentation and record keeping;
- ii. Efficient and timely delivery of RAP implementation reports;
- iii. Number of PAP's identified and consulted disaggregated by package area, type of involuntary resettlement, consultation date and gender;
- iv. Announcement of land acquisition and ROW plans by the proposed project, in particular announcing such plans for plots which their owners could not be either identified or contacted. The announcements should be arranged in two official newspapers and on WAJ and MCA websites, and as will at DLS;
- v. Number of consultation activities disaggregated by package area;
- vi. Disclosure of RAP grievance procedures and contact details;
- vii. Availability of the RAP implementation persons from or on behalf of MCA to respond to PAP's grievances;
- viii. Accidental and/or planned damages and impacts to properties and assets caused by the construction activities including those not accounted for in the RAP;
- ix. Level of coordination and collaboration with respective governmental and non-governmental organizations like Zarqa Governorate; related municipalities, WAJ, DLS, etc.
- x. Level of coordination and collaboration with the ESMP implementation, monitoring and audit teams;
- xi. Assessment of new involuntary resettlement cases which were not surveyed during RAP preparation phase;
- xii. Number of Project Involuntary Resettlement Committee meetings;
- xiii. Presence and participation of the members of the Project Involuntary Resettlement Committee in related RAP meetings and negotiations;
- xiv. Progress in negotiating of compensation packages and RAP measures against involuntary resettlement cases (number agreements signed and number of pending cases on monthly basis, number of inaccessible PAP's/Cases on monthly basis, and case-by-case progress on weekly basis);
- xv. Grievances handling, recording and reporting;

- xvi. Timely issuance of Involuntary Resettlement Committee decisions concerning raised grievance redresses;

VI. Results parameters

- i. Number of PAP's consulted disaggregated by agreements ratification status, package area, type of involuntary resettlement, consultation date and gender;
- ii. Number of PAP's who received their compensations and who were subject to RAP measures;
- iii. Timely advancement of compensations;
- iv. Number and details of grievances by respective PAP's disaggregated by grievance category, date receiving, package area and gender;
- v. Number of resolutions of redress grievances and if timely resolved;
- vi. Number of grievances filed at court, and respective court decision (if for the benefit of MCA or PAP, cost implications, etc.);
- vii. Financial differences between reached agreements with PAP's and the estimated budget for RAP implementation reported for the whole RAP, and disaggregated on package area and on case-by-case basis; and
- viii. Compliance with the RAP implementation time schedule.

Though monitoring includes weekly reporting for progress in negotiating RAP agreements with respective PAP's, the overall monitoring reporting is required to be arranged on monthly basis. The monthly report needs to report on the above listed parameters, but most importantly on the following:

1. Achieved agreements on land acquisition cases and completed acquisition procedures, their compliance with the Jordanian applicable laws and OP 4.12, the PAP's details, documentation of the plot details (photos and description), summary of negotiations with the PAP's, including spouse and affected adult family members, and its results, if the acquisition completed is based on seller/buyer agreement or if forced acquisition, PAP consensus (signed agreement by both spouses as applicable) status, etc. Supporting document shall be provided in the appendices to the report.
2. Achieved agreements on ROW cases and complete, their compliance with the applicable Jordanian laws and OP 4.12, the PAP's details, documentation of the plot details (photos and description), summary of negotiations with the PAPs, including his/her spouse and affected adult family members and its results, if the ROW completed is based on PAP consensus (signed agreement status by both spouses as applicable), etc. Supporting documentation shall be provided in the appendices to the report.
3. Planned acquisition and ROW cases including the PAP's details, the plot details, the initial assessment of the plot and its asset valuation, documentation of the plot (photos and description), plans for consulting the PAP and negotiating the acquisition terms with him/her and his/her spouse,

if livelihood restoration is deemed necessary. Supporting documentation shall be provided in the appendices to the report.

4. Claims and grievance cases that have reached the radar system of the RAP. This should include all details with the dates for each including the type of claim, claim objective, causality (with documentation) related to the project, claimant details (name, gender, contact details, RAP case number, Claim code/number, summary of consultations and investigations, decision process and details, claimant satisfaction of the decision, etc.).

The monitoring and evaluation of impacts shall cover all directly and indirectly affected PAP's, including spouses and families of PAPs. The monitoring of impacts on PAP's needs also to address the impact on the socio-economic characteristics of the affected PAP's including income generated, access to utilities and assets, economic losses caused by the proposed project, causality links of the impact to the Project, gender related aspects, etc.

Especially for vulnerable people and people whom their livelihood is affected, livelihood indicators should be measured including changes in income/expenditure percentages, changes in the sources of income contribution to the household total income, etc. PAP's satisfaction of RAP measures and offered compensation should also be monitored and evaluated.

Evaluation of RAP implementation is required to be arranged on annual basis, in addition to mid-term and final evaluation. The final evaluation report is needed to provide specific recommendations on additional measures required to ensure net positive impact on PAP's whenever necessary, in particular for livelihood improvement whenever livelihood impacts are evident to be affected by involuntary resettlement by the proposed project.

The RAP implementation body; i.e. MCA staff or a third party hired by MCA will prepare the reports on the monitoring of the implementation of the RAP and the livelihood support program (process and results parameters) and submit it to MCA Environmental and Social Director for review, compliance check and decision advice before it is submitted to MCA CEO for information and decision if necessary. Related decisions are to be informed back to the RAP implementation body.

The Project Engineer will incorporate monitoring results on RAP implementation in his periodic supervision reports submitted to MCA P2-Project Manager and prepare quarterly Monitoring Reports and submit it to MCA Environmental and Social Director emphasizing mainly the process and results parameters. The Engineer should also full monitoring on contractors non-compliance cases that leads to grievances by the PAP's, the corrective measures taken to resolve the non-compliance cause and effect, and the compensation measures decided/recommended by the Grievance Committees.

Evaluation Reports are to be submitted by MCA Environmental and Social Director to the MCC and WAJ annually, either as a standalone document or as part of the monitoring of the environmental monitoring report. The report will include a quantitative report on the amount of land acquisition and resettlement completed and provides a qualitative evaluation of implementation, based on interviews with the affected people.

Strong communication should be maintained on RAP implementation, including grievance mechanisms and results, between MCA P2-Project Manager and MCA Environmental and Social Director. Therefore a copy of each RAP monitoring and evaluation report submitted by the RAP implementation staff/consultant and by the Engineer is to be shared with the Project Manager by MCA Environmental and Social Director. Copy of the Engineer Monitoring Report is to be shared by MCA P2-Project Manager with MCA Environmental and Social Director.

This is critically important since the Project Implementation Schedules are dependent on RAP implementation progress and results for the project sections where LA and ROW cases are identified.

For difficult cases, in particular cases which are found to be questionable with regard to compliance with the World Bank OP 4.12, related information are to be communicated and reported to MCC for advice by the MCA Environmental and Social Director. Related advices should be documented and provided in the management record for the respective case.

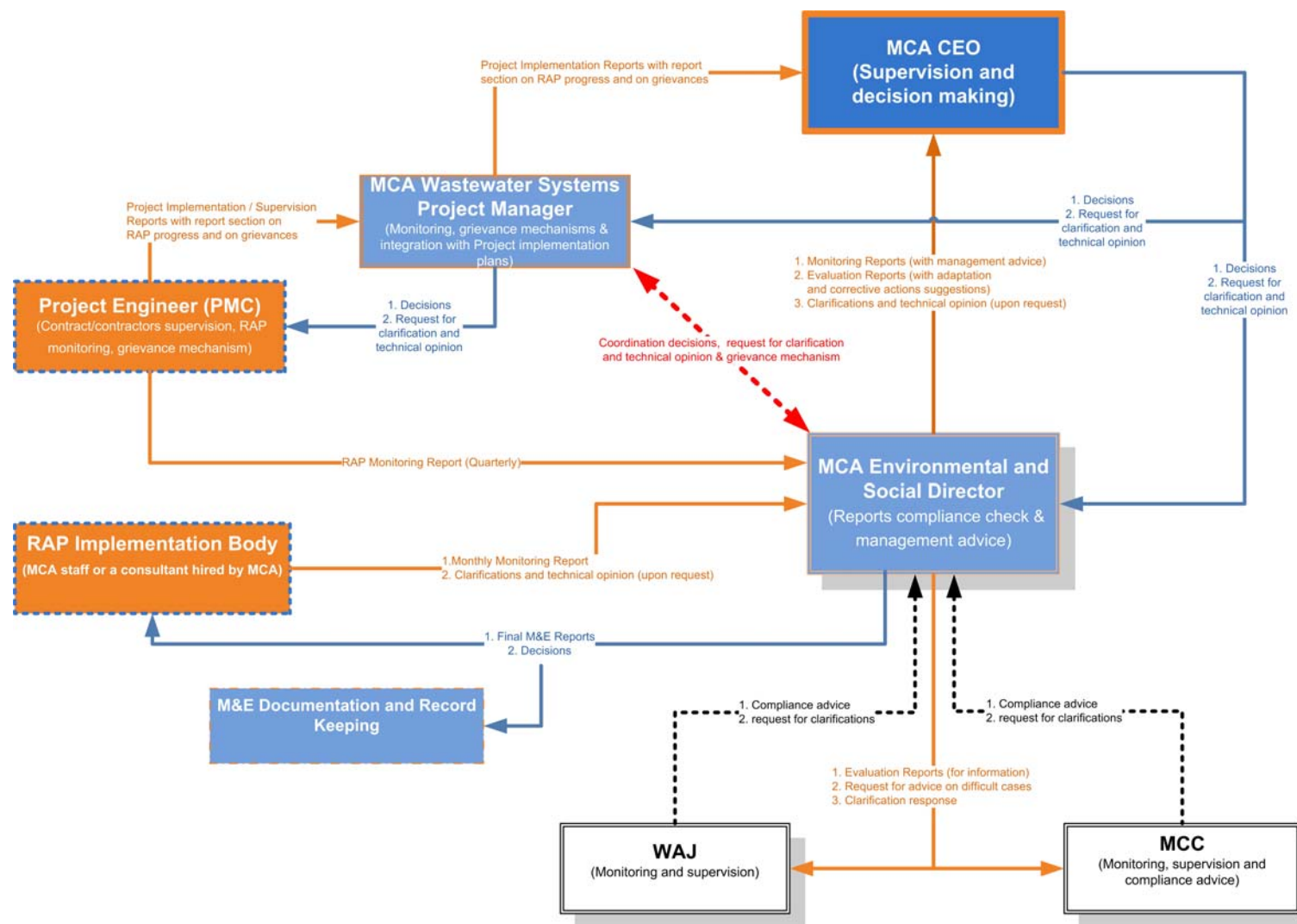


Figure 20: RAP proposed reporting responsibilities for monitoring and evaluation

17 SCHEDULE OF IMPLEMENTATION

17.1 Obligatory Time Frame Governed by National Legislations

Jordan Land Acquisition Law No. (12) For the year 1987 provides clear time frame for the land acquisition process. Summary of this schedule following acquisition standard procedures is provided in **Table 21**.

Table 21: Summary of the obligatory time schedules enforced by Jordan LA Law No. (120 for the year 1987

Activity / Process	Time Frame	Cumulative Duration
Announcement in two news papers of the exportarite intent to acquisition the land for public benefit (describes the plot details, project purpose, acquisition purpose)	15 days	15 days
Expropriator submit land acquisition application / request to the Cabinet of Ministers	3 months	105 days
Cabinet of Ministers decision	6 months	285
Announcing the cabinet decision	15 days	300
After the Cabinet of Ministers decision, the Expropriator should	30 days	
Submit a copy of the decision and the plan of acquisition chart to the relevant director of land registry, who in turn put a mark on the acquisitioned part of the property, including that there is a decision its acquisitioning, and he refrain from dealing with any request except the request of the transfer upon the approval of the party who had acquisitioned the property, provided that this approval will not be issued until the amount of compensation due to be paid is decided judicially by the court or by an agreement. If the acquisitioned property is not registered, the party of acquisitioning should submit a list of the persons claiming the ownership and their place of residence in addition to the property plan chart.		
Do an inspection on the acquisitioned property by means of a committee formed by the acquisitioning party, concerned with fixing the situation of the property based on the situation which was at the time of the issuance of the acquisitioning decision. Its report will be considered an initial evidence of that situation for the purpose of estimating the amount of compensation of the property, and can include its estimation of the value of compensation of the property acquisitioned upon the request of the acquisitioning party.		
In case of the presence of persons having the right in the property as a result of any right of the usufruct or rental, the owner of the property must inform the acquisitioning party about their names and their rights by a written letter during 30 days from the date of		330

Activity / Process	Time Frame	Cumulative Duration
publishing the acquisition decision. Also, it is possible for the right owner to do this by himself during the mentioned period.		
The party who is requesting the acquisition of the property must publish an announcement in at least two daily newspapers, to include a brief summary of the details mentioned in the acquisition decision including the description of the acquisition property, the names of owners, the holders or the Occupancy and the persons that own the rights of this property. In the announcement, he must ask the owner (owners) to meet him, within thirty days from the date of publishing, to make negotiations in order to reach an agreement on the amount of compensation due to the owner for his acquisition property.		360
Negotiations are done between the party who wants to acquisition the property and the owner (or owners) on the due compensation for the acquisition property, and the agreement is considered as taking effect after approval by the Minister of Finance if the party who acquisitioned the property is one of the ministries or public official departments and the Minister of Municipalities and Minister of Environment if the party of acquisition is one of the municipalities.	30 days	390
If for any reason no agreement had occurred between the owner and the expropriator on the amount of compensation, both may ask the court to assess this amount.	Not defined	
The interest mentioned in the provisions of paragraph (a) of this article at the percentage of 9% annually takes effect on the due compensation value of the owner if he was not paid during one month from the date the court decision acquiring the final definitive degree, the date of agreement on it or the date of agreement approval, in the cases need to be approved, provided that the deposit of the amount of compensation to the relevant Registry Director, during that period (due to not asking for it or any other reason related to the owner), is considered as a clearance to the acquisition party, provided it shall announce that deposit in at least one daily newspaper if the owner could not be informed directly for any reason.	One month	420
The owner of the acquisition property outside the government, any of the belonging public formal institutions or municipalities can get back his property filing a case to the jurisdiction court if the party of acquisition did not start its work in the project which the property was acquisitioned for during three years from the date of the registry of the property in his name provided that the reasons that the party of acquisition had introduced for not initiating the project were inadequate, unreasonable or the party of acquisition could overcome.	Not defined	
Cumulative Duration		420 days

17.2 Time Plan for RAP Implementation









RAP overall implementation schedule is suggested in **Table 22** below as an initial one which should be revisited and updated as early as the Project Management Company (PMC, the Engineer) is hired thus to capture the Project construction plan for each package area. Updating the time plan is the responsibility of the RAP Implementation body/persons (employees or consultant hired by MCA) in coordination with and subject to the approval by the MCA Environmental and Social Director.

This plan is to be implemented over a period of five years, probably to start in the period between late April and early May 2012, which is the expected duration for the completion of all construction works under this project and its first year of operation. Most of land acquisition arrangements and reaching settlements / agreements for ROW case are expected to be completed in the first two years of RAP implementation. The remaining period for RAP implementation will be mainly for finalization of actions for managing and resolving complex cases that require going through WAJ procedures and require parcelization by DLS, and also for implementation of the grievance mechanism.

With regard to the complex cases that still need parcelization before preceding with the RAP measures, including land acquisition like case number 94, the acquisition steps should follow the the procedure plan provided in **Table 23**.

It should be noted that all acquisition cases and advancement of compensations for ROW cases and for approved grievances should be completed before the end of the Compact. However, for the complex land acquisition cases that require expropriation following WAJ procedures, and for be complaints about accidental construction damage that, if not resolved, will prevent project acceptance by the client (final construction audit rules specify that all complaints must be resolved) which are not completed for one reason or another before the end of the Compact, payments to be made to those should be reserved in special escrow account in government treasury to advance these payments to eligible PAP's following the same procedures applied by this RAP.

Table 22: Time plan for RAP implementation

Activity	Time Schedule (Quarterly)																			
	Year 1				Year 2				Year 3				Year 4				Year 5			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Revise and update RAP implementation work plan and actions register;																				
Maintain day-by-day update of the RAP implementation actions register;																				
Coordinate, facilitate, document and report on all RAP implementation related actions including, but not necessarily be limited to: PAP's consultation and negotiation, ratification of acquisition/ROW agreements with PAP's, timely advancement of compensation payments; PMC and Contractors compliance with the RAP and ESMP mitigation measures, risks and occurrence of impacts on PAP's and their properties (including those accounted for in the RAP and those not accounted for), PAP's grievances and its management; impacts on PAP's livelihood; etc.;																				
Establish and firmly apply RAP implementation procedures and prepare related forms based on the RAP action plan;																				
Gather information from DLS, municipalities and other related governmental sources to fill information gaps related to the plots identified to be subject to acquisition or ROW. This includes location details (basin, village, etc.), ownership information, parcellation information, area, etc.;																				
Conducting filed survey of the plots which was not surveyed during the RAP preparation phase;																				
Carry out PAP's consultation with the PAP's who were not consulted																				

Activity	Time Schedule (Quarterly)																			
	Year 1				Year 2				Year 3				Year 4				Year 5			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
during the RAP preparation phase, and maintain efficient communication with the affected PAP's during the lifespan of the project;																				
Arrange draft acquisition/ROW agreements with PAP's and discuss its terms of respective PAP's																				
Coordinate the acquisition/ROW negotiation committee meetings and prepare draft minutes of meetings to be reviewed and ratified by the committee members;																				
Monitor the acquisition/ROW negotiation committee compliance with the World Bank OP 4.12 and with applicable national legislations, provide technical advice whenever necessary and acquire MCC guidance whenever there is a possibility of non-compliance with the WB OP 4.12;																				
Prepare and maintain periodic update of PAP's profiles;																				
Assess involuntary resettlement risks and impacts by any currently unforeseen changes to the layout and rout of the proposed project, and suggested effective and adequate actions in compliance with the World Bank OP 4.12 and the nationally applicable legislations;																				
Establish and maintain effective communication, follow up and reporting with the PMC focal point (possibly the environmental and social management officer/engineer);																				
Establish and maintain effective reporting																				
Negotiation progress reports (Weekly)																				
Monitoring Reports (Monthly)																				
Evaluation Reports (Annually)																				

Table 23: Implementation procedure and time plan for complex acquisition cases

Step No.	Step	Possible Result / Next Step	Time Plan (Months)																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Step One	Re-investigate if the respective PAP applied for plot parcilization and registration of the respective/affected plot during the period between PAP consultation and the time of starting RAP implementation;	Yes, the PAP submitted application and completed the parcel registration (Go to StepSix);																								
		Yes, the PAP submitted application and parcel registration is in process which takes between one and three months (Go to Step Four)																								
		Yes, the PAP submitted application and parcel registration is in process which is expected to take several months (Go to Step Five)																								
		No, the PAP didn't yet submit application and parcel registration is expected to take several months (Go to Step Two)																								
Step Two	Arrange and hold consultation focus group (meeting) with all identified plot owners to discuss and confirm specific owner of the respective parcel out of this plot subject to LA or ROW. This confirmation should be documented in the form of Memorandum of Agreement or Declaration of Ownership signed by all owners confirming the name(s) of the affected parcel name and legal identify.	Go to Step Three																								
Step Three	Coordinate with the respective PAP and other owners the submittal of application for plot parcilization	Go to Step Four																								
Step Four	Encourage/Request DLS to speed up the parcilization and registration process	Parciliation and registration completed or expected to be completed in a period between one and three months of the application (Go to Step Six)																								
		Parciliation is expected to take several months to few years (Go to Step Five)																								
Step Five	Proceed with application through/one behalf of WAJ for Urgent Land Acquisition of the respective parcel following WAJ procedures and based on the estimated compensation provided in this RAP	This is expected to take between three and six months with keeping the right to MCA/WAJ proceeding with the project activities without waiting the completion of all acquisition steps																								
		PAP is satisfied with the allocated compensation (Go to Step Eight and Ten)																								
		PAP is not satisfied with the allocated compensation (Go to Step Nine)																								
Step Six	Enter Negotiation with the respective PAP to achieve seller/Buyer agreement for the acquisition of the respective parcel	Agreement reached with the respective PAP (Go to Step Seven)																								
		Agreement is not possible through negotiation (Go to Step Five)																								
Step Seven	Complete the acquisition/buying agreement and register the parcel to the name of MCA	Go to Step Eight																								
Step Eight	Advance the agreed compensation to the respective PAP within a period of one month	PAP received the compensation in full and on time (process completed)																								

Step No.	Step	Possible Result / Next Step	Time Plan (Months)																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
		PAP is not satisfied due to delayed advancement of the compensation or due to incomplete payments (Go to Step Nine)																								
Step Nine	PAP’s Grievance Mechanism	Decision reached and implemented to the level of PAP satisfaction (process completed)																								
		Decision not reach, or reach but not implemented to the level of PAP Satisfaction (Go to Step Ten)																								
Step Ten	PAP may file his case to the court	Follow up the case in court and react positively and transparently with the court proceedings.																								
		Decision in favor of MCA acquisition of the parcel (Go to Step Six)																								
		Decision in favor of the PAP (Go to Step Twelve)																								
Step Eleven	Follow up the land acquisition case with DLS until the parcel registration is completed by issuing parcel registration document to the name of MCA	Plot registration and parcilization mapping completed																								
Step Twelve	Assess decision implications on the Project and identify technical and legal options.	Top Management Decision																								

18 RAP CONTROL AND REPORTING

The RAP should include provisions to ensure the adherence of the various cooperating parties to its full and timely implementation and monitoring. To achieve this, a control system needs to be implemented. The elements of this control process are to include:

Document and Record Control: This is a procedure through which all associated RAP documentation and records are stored and distributed. This will include the maintenance and updates of the plots and PAP's registers, the assets information and valuation, and the responsibility for the dissemination of information to involved parties. It is the responsibility of the Project Owner and DLS to ensure the execution and implementation of this control element.

Checking and Corrective Action: This dictates that all incidents of deviation from the planned criteria or activities be reported and action taken to manage involuntary resettlement cases, rectify the situation and minimize the chance for its recurrence.

Claims and Grievances: A provision should be made to register and review incidents, grievances or other claims made against the project or project-related personnel or activities by the public or any party. Action needs to be taken to address any such claims where they are shown to be valid and require such action. Negotiations with the PAPs should be managed as claims and shall be fully documented. The negotiation process, personnel and decisions shall also be documented and reported on, and shall be made public through DLS. Details on related provisions are provided in **Section 13**.

Auditing: The implementation of the RAP should be audited on a regular basis as part of the RAP Implementation Evaluation process. Audit reports are the basis for verification of the compliance of the various parties, the completion and implementation of programs and livelihood monitoring and support plans, and the effectiveness of such actions and other elements of the RAP. The audit will be used to review and will rely on the monitoring data. The audit shall be carried out annually by either the MCA Environmental and Social Director or by an independent third party against the OP 4.12 and against applicable national legislations presented in this report.

Review Process: A periodic (annual) review of the RAP incidents needs to be done through the course of the project. Necessary modifications and adjustments can be decided through this formal and timely review process. Changes and new issues need to be communicated to the parties responsible for their implementation and monitoring as well as the communities in the project area and other stakeholders.

The proposed reporting system encompasses the following reports:

- PAP's Consultation and Negotiation Reports (RAP Implementation Committee minutes of meetings and copies of the agreements signed with respective PAP's are to be provided as annexes to the report)
- Progress Reports
 - Weekly negotiation progress report
 - Monthly progress report
- Monthly Monitoring Reports
- Claims and Grievances Reports (based on the provided form in **Section 13**)
- Annual Reports
 - Annual Audit and Evaluation Report
 - Annual Rap Implementation Report

It is recommended to arrange the RAP reporting, monitoring, audit and evaluation procedures within the Project overall Environmental and Social Management System. Such system needs to involve implementing agency of the system and plans which is understood in this case to be the MCA, and a supervisory and advisory body which is understood to be the MCC.

19 APPENDICES

Appendix 1: Approach and Methodology

Appendix 1: Approach and Methodology

Since the nature and design of the proposed project indicate that it will involve land acquisition in addition to socio-economic implications related to involuntary resettlement of locals as defined by the MCC policies and guidelines, and as defined by the World Bank Operational Policy on Involuntary Restatement number 4.12, this project triggers the application of the World Bank OP 4.12 which requires the preparation and implementation of a project-specific Resettlement Action Plan (RAP).

The overall objectives of the Bank's policy OP 4.12 on involuntary resettlement as provided in the TOR are the following:

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

It is also stated in the TOR that this policy covers direct economic and social impacts that both result from MCC-assisted investment projects, and are caused by:

The involuntary taking of land resulting in relocation or loss of shelter; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or

The involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

Overall Approach

The overall RAP preparation approach constituted the following activities:

1. Identification of and consulting the Project Affected Persons (PAPs);
2. Census of PAPs affected by the project acquisition of land, gathering information on their socio-economic character, identification and valuation of the project to-be-affected assets;
3. Proposing resettlement measures that are in compliance with the MCC policies and guidelines, World Bank OP 4.12 and related national legislation;
4. Drafting a RAP implementation schedule;

5. Estimation of the RAP costs and budget; and
6. Proposing RAP monitoring and evaluation measures.

The preparation of the detailed Resettlement Action Plan (RAP) for the project builds upon the information presented in the RFP, information available from approved and trust-worthy secondary sources such as the Government of Jordan Department of Statistics, and the finalized and approved socio-economic studies prepared for the project.

The RAP study team worked closely with the design team to ensure that all land acquisition and resettlement impacts that can be avoided by design modification are taken into consideration and modified accordingly. All design modifications have been documented and reported in this RAP.

The RAP includes identification of all Projects Affected Parties (PAPs) expected to be affected by the proposed project based on the final detailed design. The differences among PAPs on the basis of gender and vulnerability are accounted for by disaggregating the PAPs based on gender, vulnerability to involuntary resettlement as defined by the World Bank OP 4.12, and the type and magnitude of resettlement impact to which the relevant PAP group is vulnerable.

Upon completion of the surveys and consultations, assessment of involuntary resettlement was carried out using the information and data collected from primary and secondary sources, and based on the project design details, most importantly land acquisition needs and plans. This was followed by valuation of assets and compensation requirements, budgets, designing resettlement measures in compliance with the World Bank OP 4.12, and proposing monitoring and evaluation measures.

Use of the terms “Involuntary” and “Resettlement”

The proposed project must comply with the World Bank OP 4.12 since the Project is exercising the legal power of the Government of Jordan to compulsorily acquire private property in the public interest, and therefore the World Bank policy termed “involuntary resettlement” and its procedures is applied to the project.

The term “**Involuntary**” refers to having the property in question acquired without the prior and informed consent of its owner or without the owner's power of choice (OP 4.12 note 7). Therefore, the policy would not normally apply in the following cases:

7. Voluntary donation of property by individuals or groups for a project of common or public benefit;
8. Transfer of land between public bodies; and
9. Property acquisition on the market through a “willing buyer / willing seller” arrangement.

For the cases listed above, having the acquisition arranged in full and voluntary consent by the original owner of the property in question, it is important to have all related facts to the donation, transfer or

voluntary sale established and properly documented. Assessment of such cases where activities did not directly cause the involuntary displacement of people, livelihoods or economic activities or curtail customary enjoyment of benefit is also important.

“Resettlement” in the context of the World Bank policy and in this document is applied not only to physical displacement, but also to economic displacement. It applies to any adverse socio-economic impact arising directly from expropriation of land, irrespective of whether or not there is physical relocation of people (relocation or loss of shelter). The direct impact of property acquisition on livelihoods and economic activities, loss of assets or access to assets, loss of access to income sources or means of livelihood, whether or not the PAPs must move to another location, are also included in the term **“resettlement”** or the concept of **“displacement”**.

This RAP is a site-specific instrument to comply with the applicable national and MCC policies and government legislation, in particular the Jordan Land Acquisition Law number 12 for the year 1987 and the World Bank OP 4.12. It applies to the expropriation of any property that lies within the immediate project area implementation corridor, including all project components and activities, and that is prerequisite for the project or a direct consequence of it. Thus, even where a project is located on vacant land, the policy would apply if, before the project had started, a previous action had cleared that land of people or activities in order to make way for the project.

Methodology

The preparation of this RAP requires full coordination and cooperation between the design team and the RAP team; therefore, liaisons were hired between both teams to maintain effective exchange of data and information and maintained feed-back loops during the RAP preparation phases.

The Consultant worked, and is still working, closely with the design team to avoid land acquisition wherever possible. However, if land acquisition cannot be avoided, then this is discussed and managed within the context of the Resettlement Action Plan (RAP).

Six extended meetings were held and attended by representatives of the RAP team, ESA team and the design team to discuss each resettlement case for avoidance measures, re-design alternative options of some sections of the system to reduce resettlement impacts, and mitigation measures for unavoidable beyond reduction resettlement impacts. The design team also effectively participated with the RAP team in three RAP workshops and discussed, during the plenary, working groups and the one-to-one discussions, involuntary resettlement cases with the participants and affected PAPs.

The Project RAP details the RAP implementation actions to be taken to:

1. Acquire all land and assets needed in order to proceed with construction, which entails a physical survey of all plots affected, as well as a detailed inventory of all assets that will be lost;
2. Plan and create with the relevant PAPs relocation sites and institute protective measures in a participatory manner; and
3. To the extent that there is any impact on livelihoods, develop in close collaboration with the PAPs any required livelihood restoration measures. These measures are needed when there is involuntary taking of land resulting in: (i) relocation or loss of shelter, (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the PAPs must move to another location.

RAP Study Preparatory Activities

In preparation for the RAP the following activities were implemented:

5. Gathering needed data on the project components, activities, layout and land acquisition in addition to information on resettlement sites from the design team;
6. Summarize and analyze the information from secondary sources on the area and people affected by the project. The review of the data from secondary sources aid characterization of the affected community, and the identification of the PAPs and their grouping;
7. Identification and categorization of the Project Affected People (PAPs) based on type and magnitude of effect (i.e. acquisition of land, loss of land, reduce asset value, temporary loss of income, etc.);
8. Reviewing the legal and institutional framework and responsibilities for resettlement;
9. Drafting basic criteria, including eligibility criteria (entitlement) for compensation and cut-off dates; and
10. Preparation of the socio-economic survey tools.

The information obtained from the design team includes:

1. Summary description of the proposed project including project areas, components and elements, construction corridor, activities, relevant aspects of the project;
2. The proposed project Land Acquisition targets (Project Right of Way Report);
3. Copy of the maps and the neighborhood (Hai) level showing the corridor of the proposed project components and with clear color marking of the to-be acquisitioned land.

Ownership information regarding land plots was collected from the Department of Land and Survey (DLS) - Zarqa Directorate. Based on the gathered information during the preparation phase, the RAP consultant prepared a table summarizing the information on planned land acquisition based on the Project Right of

Way Report including location (municipality, neighborhood/Hai, street name, block number, plot number and plots registration numbers), area to be acquisitioned from the respective plot, and the owner information (name and contact details). The summary table was revised jointly by the RAP study team and the design team for validation and confirmation.

Initial contact details for many of the identified owners were collected during this phase by searching the yellow pages, searching landline phone numbers directory and from the land line call centre.

Validation of the tabulated information was arranged by conducting Rapid Diagnosis Field Visits (RDFV) to the study area which constituted:

1. Driving the whole alignment of the proposed wastewater system;
2. Walking in the areas where plots are planned to be acquisitioned or affected by the Project ROW;
3. Identifying potential Project Affected People (PAPs) including owners, tenants and users,
4. consulting probable affected PAPs met during the visits and collecting their contact details for future consultation and survey;
5. Documenting land use activities observed within the targeted plots (other than vacant lands); and
6. Gathering information from neighbors of some plots which were found to be either parcelized on the ground, new roads constructed, or which the Consultant could not find its owner contact information from other sources.

During the RDFV visits the consultant collected copies of the official new parcelization plans issued by the respective municipalities and DLS from the owners and locals.

Shortage in plots and plot ownership information was witnessed for a number of the targeted plots, mainly due to differences between the information and maps available from DLS and the on-ground plots status given the recent realities related to parcelization of some plots, development of new roads, and changes in ownership of some other plots.

Still, there are some deficiencies of the information obtained concerning the location of two affected plots, plots parcelization and PAPs names and contact information.

Information on targeted plots for land acquisition and right of way, plots parcelization, changes in plots numbers, the exact location of the plots which could not be visited due to differences between the on-ground reality and the maps were requested from the design team and was intended to be a prerequisite to the socio-economic survey and PAPs consultation activities. The information on targeted plots for land acquisition and ROW were provided by the design team in June 2011, most of the information which was available on the other issues were provided in the period between July and August, however, some

information are still not available to the design team and as such could not be made available to the RAP consultant.

Initial findings of the RAP preparatory activities were shared with the design team and the DESIA team for revision and advice.

Socio-Economic Survey and Consultation of the Project Affected Persons (PAPs)

The RAP is developed in a highly participatory manner, including consultation with PAP's anticipated to be impacted by the project in the 33 study areas identified by the project design team, and taking census of the PAPs expected to be affected by land acquisition. These surveys/consultations were designed to collect information on the PAP's socio-economic character, their willingness, acceptance and preferences related to resettlement options.

The participatory approach taken to consultation includes informing PAPs of the proposed actions and available options, soliciting PAP's willingness and acceptance of the available options, and gathering PAP's suggestions for other options and for their preferences and views to be incorporated into the RAP. The approach ensures that both male and female household heads, where applicable, are consulted with and included fully in all discussions related to resettlement and compensation.

The methodology applied constituted two main activities, namely:

1. Carrying out survey/census of the entire PAP population expected to be impacted by land acquisition; and
2. Holding PAP consultation sessions and discussion groups with 81 participants from the identified PAP in the study area, including 76 males and five females.

Methodology for Surveying (Census) PAPs affected by Land Acquisition

The RAP consultant conducted socio-economic survey of PAP's expected to be directly impacted by the project acquisition of land. This census covered all property owners, renters and lessees, and tenant farmers within the Corridor of Land Acquisition Impact who could be reached and contacted. The survey was conducted with the directly affected PAP for both male and female PAP's. In few cases the survey was conducted with representatives of the PAPs, like:

- When the respective PAP is dead (case number 2) then we surveyed the inheritors,
- When the PAP is out of the country, then we surveyed his official respective who is able to show a general or special power of attorney delegating this person to act on behalf of the PAP;

- When the PAP request the survey team, during the initial meeting with her/him, to fill in the questioner with his representative.

The survey for ROW cases was arranged with the household head, regardless of being male or female. The survey of businesses was all conducted with the businesses owners.

Some of the identified PAPs could not be surveyed for one or more of the following reasons:

1. The plot location could not be visited due to a wrong plot number or lack of plot number;
2. The plot owner could not be identified due to an information deficiency from DLS on the plot ownership (mostly new parcellization of the plot), and the information on the owner(s) could not be gathered during the visit to the targeted plot from neighbors;
3. The contact details could not be found for affected PAPs from contact directories, from visiting the plot location, or from his/ her possible relatives or neighbors;
4. The PAP refused to complete the survey tool with the surveyors, or rescheduled the appointment to complete the survey more than eight times;
5. There is no need to complete the survey tool since the PAP is either a government organization which should be contacted officially by mail, or the plot will not be affected as there is a new road constructed or planned by the municipality; and/or
6. The identification of the specific PAP to be affected is pending awaiting re-design of the wastewater line/trunk because there is new parcellization of the plot into new parcels with new numbers, or because of technical or impact reasons forcing reconsideration of the alignment and it's ROW.

This census covered the following:

1. Basic demographic and socio-economic data for all individuals in each household (e.g., family size, age composition, gender composition, education, primary and secondary occupations, sources of income, etc.).
2. Property data (type of land, farm, house, apartment, garden, etc.).
3. Ownership and land use data (ownership, rental, lessee), disaggregated by gender.
4. The nature of the impact (e.g. loss of residence, loss of business premises, loss of garden, crops or trees, etc.).
5. Willingness, acceptance and perceptions of the proposed resettlement options.

The survey also identifies people/populations that are especially vulnerable to marginalization or livelihood displacement during the resettlement process.

For PAPs affected by ROW and construction activities likely to cause damage to assets, economic or livelihood impacts, inventory forms were completed to document the asset details.

The PAPs interviewed as part of this census activity were asked to sign the completed survey form, and when accepted by the interview picture was taken of him/her. Some of the interviewed PAPs accepted this arrangement and others did not accept signing because they do not want this form to be binding to them.

The RAP documents the results of the survey undertaken. The survey and asset inventory forms, formats and tables used for surveys, and questionnaires used for socioeconomic surveys, including the results of the consultations and surveys are included in the appendices of this RAP.

Electronic copies of the data sets from the Population survey, Asset Inventory, Socio-economic Survey and other quantitative materials will be included in the appendices of the final version of the RAP.

Methodology for PAPs Consultation (Consultation Sessions and Discussion Groups)

The RAP consultant arranged for, held and facilitated three PAP Consultation Workshops and replaced the discussion groups with small focus groups and one-to-one discussions at the last session of each workshop with the population affected by the project and living within the Resettlement Corridor (if applicable) of Impact.

Three workshops were organized and held with representatives of the local communities, in particular the proposed Project Affected People (PAPs) who are anticipated to be affected by resettlement impacts of the proposed project in both East and West Zarqa. The three PAP Consultation Sessions were held in the three study areas: one in East Zarqa, one in West Zarqa and one in Russiefah.

The overall goal of each of the three workshops was to consult the project affected people about the project-anticipated impacts related to involuntary resettlement as defined and governed by the MCC policies, the World Bank O.P. 4.12 and the Jordanian legislations and procedures related to land acquisition and obtaining right of way for wastewater treatment systems.

The workshop's specific objectives were:

10. Informing the PAPs of the proposed project, project components, elements, overall layout, beneficiary/affected areas, overall anticipated involuntary resettlement impacts, land acquisition requirements, etc. these information are to be presented by the design team and the resettlement study team.
11. Explaining to the PAPs the differences between the different types of involuntary restatement, the criteria for assessing vulnerability to resettlement, resettlement mitigation strategies, and PAP's eligibility criteria to resettlement actions.

12. Open discussion on the above to collect the participating PAP's issues of concern, information inquiries, perceptions and suggestions related to the RAP.

These sessions were prepared for jointly with the project design team and the EIA study team. These preparations include:

1. Announcing the dates and venue for holding these workshops and inviting all PAPs to participate;
2. Preparing information/briefing sheet in Arabic describing the purpose of the session, the project basic description information, session agenda and the RAP consultant contacts;
3. Preparing the above mentioned presentation in Arabic language including summary table of land acquisition requirements (plot no. block no. etc.), project layout maps and other information;
4. Preparing five hard copies of the design maps (ROW Report) showing the project layout with clear marks of land acquisition areas which will be made available by the end of the session for the participants to view and see if they, or somebody they know, is vulnerable by the project to involuntary resettlement; and
5. Preparing a participation registry form which was used for registering participant's names and details.

PAPs identified by the RAP study as being at risk of involuntary resettlement and could be contacted up until July 10th 2011 were invited to attend one or more of the workshops including men and women participants, and all property owners, renters and lessees, and tenant farmers within the Corridor of the proposed project. The invitations were distributed as follow:

13. Invitations distributed by hand to PAPs affected by acquisition or ROW whom the consultant can meet in the field,
14. Invitations sent by fax to related governmental and non-governmental organizations identified;
15. Announcements through the municipalities and local CBO's, and
16. Hanging invitation announcements in the bulletin boards of the mosques in the affected areas.

In summary, consultation workshops with PAPs were organized as follow:

- The first workshop was held on the 12th of July 2011 at Zarqa Chamber of Industries,
- The second workshop was held on the 13th of July 2011 at Russiefah Municipality Library Hall, and
- The third workshop was held on the 17th of July 2011 at Al Hashimyah Al Jadiedah Municipality Multi-Purpose Hall.

The moderation of these sessions was highly participatory giving all those who would like to express their opinions do so, and was gender balanced as it gathered the views of male and female participants.

The workshop agenda included the following activities:

1. Welcoming the participants and briefing them on the discussion group purpose;
2. Brief introduction on the proposed project, project service areas and the identified affected lands/properties by Land Acquisition or Right of Way (ROW) according to the prepared ROW Report;
3. Explaining the criteria for the identification and categorization of PAPs, and for the assessment of the project effects on them as per of the applicable national and World Bank Policies and guidelines;
4. Open discussion (plenary);
5. Small side discussion groups and one-on-one consultations wherein open discussion was held on the project, anticipated RAP impacts on identified PAP categories at the neighborhood level;
6. Participant's suggestions and recommendations; and
7. Workshop conclusion.

The moderation of these sessions was highly participatory giving all those who would like to express their opinions does so.

During these consultations, the RAP consultant discussed with the participants the proposed range of compensation options, including strategies/approaches for effective economic livelihood rehabilitation/restoration available under the project to ensure that any PAP, including members of the host community, shall have the opportunity to know what compensation options are generally available.

The workshop preparations and facilitation invited all identified female PAPs to the workshops, ensured that female participant's take had equal opportunity to speak, and directed questions to female participants to encourage them to participate more effectively and to ensure their views are affirmed and not overlooked.

These sessions were documented by video recording, notes taking and photo captures. All comments, issues and points raised by the participants were documents as practically possible, and provided in the appendices of the RAP. Electronic copies of the video recording of the consultation workshops have been already submitted to MCA Office.

Asset Identification and Valuation

Once the project footprint and the Resettlement Corridor of Impact have been established for the project, the consultant prepared an inventory of all assets for the surveyed plots, respective to the affected plots within the Resettlement Corridor of Impact, which are expected to be deleteriously affected by the Project.

Identification and valuation of the assets expected to be lost/ affected by the project covers the following:

1. Land to be acquired by the government for establishment of an expanded or new ROW;
2. Housing (title or other evidence of valid claims to land and property rights; plot dimensions, built area of each structure, construction materials for all structures and infrastructure);
3. Businesses (evidence of valid claims to land and property rights; plot dimensions, built area of each structure, construction materials for all structures and other improvements; net monthly profits and salary are covered above);
4. Farms (area cropped, cropping patterns, area to be taken, cropping pattern, field estimate of crops and trees to be taken);
5. Marketers (evidence of valid claims to land and property rights; plot dimensions, built area of each structure, construction materials for all structures and infrastructure; net monthly profits, as well as number of employees and their salaries are covered above);
6. Ornamental and vegetable gardens (evidence of valid claims to land and property rights, plot dimensions, number and type of plants or area of crop), if available;
7. Trees (by species and maturity); and
8. Other infrastructure (e.g., fences, wells).

Based on the outcomes from the above discussed activities, the consultant assessed the value for lost/affected assets based on current market rates, by square meter, at new replacement cost, not taking into account any depreciation (per the requirements of OP 4.12).

Resettlement Measures

Avoidance measures have been jointly identified with the design team for some of the interviewed PAPs in addition to other affected plots whose owners could not be interviewed. Whenever avoidance is not possible, the Consultant and the Design Team discussed measures to minimize the involuntary resettlement impacts on PAPs for application in the Project final designs. The minimization measures discussed include:

1. Considering obtaining ROW instead of land acquisition for cases which do not qualify for land acquisition and can be limited to ROW, (E.g. following parcelization of plots into smaller

- parcels having the involuntary resettlement impact having less negative impact on the respective PAPs);
2. Shifting the alignment to neighboring plots whenever the impact on the alternative plot is much less compared to the impact by the initially proposed alignment on the initially targeted plot(s);
 3. Shifting the alignment to neighboring existing or planned road whenever such roads are identified within a range of shifting acceptable and practical from engineering point of view, even if the construction cost will be higher;
 4. Narrowing the ROW to its absolute width practically possible to allow for the construction and future maintenance of the system;
 5. Considering the replacement of the cemented piping option with manholes every 50 meters (length) with steel pipes that do not need manholes to be constructed within the affected plot to meet the PAPs conditions; and/or
 6. Considering cancelation of the alignment section whenever the impact is severely significant on the PAP and the benefits from keeping the section is much lower compared to the expected negative impacts.

Methods to engage in one-on-one consultations with each of the PAPs to determine resettlement measures and compensation packages to be offered have also been developed and provided in this RAP.

During these one-on-one consultations, PAPs (both men and women) were: (i) informed about their options and rights pertaining to resettlement; and (ii) consulted with, offered choices among, and provided with technically and economically feasible resettlement alternatives, including, as appropriate, economic livelihood restoration assistance.

Compensation options must include, at minimum, in-kind (land for land, residential or business structure for residential or business structure) and direct payment options. This report explains the terms and conditions of the compensation package, and documents the PAP's preferences for compensation packages.

Description of the compensation and other resettlement measures such as economic livelihood restoration efforts that will be provided to each PAP category are also discussed and provided in this RAP. In addition to being technically and economically feasible, the resettlement packages are intended to be compatible with the cultural preferences of the displaced persons.

Grievance procedures and forms are proposed as part of the RAP including disclosure of the procedures, receiving requests, handling, reporting and decision making guidelines.

Implementation Schedule

This RAP suggests an implementation schedule covering all resettlement implementation activities, including target dates for the provision of compensation – either in-kind or through direct payment, and the clearing of the right of way. The schedule indicates how the resettlement activities are linked to the implementation of the overall project, and include time for contracting firms to support implementation, as necessary, including a firm for constructing resettlement sites and/or a firm for implementing a social compensation plan for vulnerable populations, if applicable.

The implementation schedule has been designed based on the instructions listed in the Jordan Land Acquisition Law No. 12 for the year 1987, and on the guidelines and requirements provided in the World Bank OP 4.12. Dates are suggested where applicable; however, schedule periods are suggested in the form of an implementation period linked to specific project activities where suggesting specific dates are not possible.

Costs and Budget

The RAP include tables showing itemized cost estimates for all resettlement activities including land acquisition, construction of replacement structures (if required), allowances for inflation, population growth, economic livelihood restoration activities, other contingencies, and estimated timetables for expenditures. The tables are prepared for the surveyed plots and consulted PAPs, therefore the plots not surveyed due to one or more of the reasons mentioned in the constraints section of this report are not included in the tables of cost estimates.

Monitoring and Evaluation

The RAP suggests arrangements for internal monitoring of resettlement activities by MCA-Jordan and external by auditors to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement and related development activities have been completed; and provisions for using the results of resettlement monitoring to guide subsequent implementation. Data should be disaggregated and analyzed by gender and other relevant social characteristics.

RAP Preparation Constraints and Mitigating Actions

Given the tight time schedule for the preparation of the RAP study, it is important to note that carrying out such a study is substantially dependent on the availability of the route design and sufficient information on the location and ownership of the affected assets to identify the PAPs, establish contact with each one of them, carry out an assessment, and analyze the findings.

The Land Acquisition and Right of Way Report (ROW Report) is considered, next to the owner's names and contact information, the corner stone for commencing the survey of the PAPs. The ROW Report was kindly provided by the design team on June 23rd 2011 while the names of the assets owners was provided by the Ministry of Finance - Department of Land and Survey (DLS) - Zarqa and Russiefah land and Survey Department on July 12th 2011.

The study progress faced a number of constraints that affected the timely delivery of the RAP Study Report subsequently the survey coverage of PAPs. The Consultant, with support from, and in full coordination with, MCA-Jordan and the Project Design Team, implemented alternative actions which helped in a number of cases to overcome the constraints. However, in a few cases it was not possible to mitigate constraints.

Summary of the constraints and the carried out mitigative actions are provided in **Table 24**.

Table 24: Summary of the constraints and the implemented mitigative actions

Constraint	Mitigating Action	Result
Time lag between the date of service commencement order and the date receiving the ROW Report	1. Conducted survey of the affected businesses and people identified during the site rapid diagnosis visits carried out by the RAP Study Team and based on the system route maps provided by the design team.	1. All beneficiary areas in East Zarqa, West Zarqa and Russiefah were visited for rapid diagnosis purposes and for consulting randomly selected sample of the businesses located within the construction corridor of the proposed project. 2. A total of 48 PAPs out of the initially identified 256 were consulted and surveyed as part of the businesses survey.
Difficulty obtaining the names and contacts for the identified parcels to be affected by land acquisition and/or ROW from the DLS and the time and effort lost attempting convincing DLS to provide the needed information	1. Obtained letter of support addressed by MCA to DLS inquiring the needed information. 2. Obtained letter of support addressed by MWI to DLS requesting the needed information. 3. MCA met with the Zarqa Governor, in the presence of the RAP Consultant, to ask for his support to obtain the needed information. 4. Zarqa Governor requested DLS Department in Zarqa to provide the consultant with the names of the owners of the identified assets to be affected by the proposed project.	1. DLS was less supportive than expected when they responded (verbally) to the MCA letter and requested that the information request should come from MWI, and the MWI letter was also not accepted by the DLS Director to provide the needed information even though he requested the letter. He requested another letter from the Prime Minister to share the requested data with the Consultant since, as he mentioned, such confidential information can only be shared with the Prime Ministry. 2. DLS-Zarqa provided the consultant with copies of the assets registration sheets based on a list of assets numbers and details prepared based on the ROW Report.
The number of affected assets was almost 200% of those reported in the ROW Report due to the recent findings on land parcelation.	1. Provided feedback to the design team for revision of the design and of the ROW report, and requested an updated list of land acquisition and ROW requirements.	2. Awaiting advice from the design team.
About 30% of the names of the assets owners and other PAPs information (including contacts) could not be obtained through DLS since some were not available at DLS, some are in the process of re-organization and parceling, and for others the names of owners for a number of assets were confused with assets in other areas in Zarqa belonging to land basins that are out of the project's geographic scope	1. Attempted the establishment of communication with the PAPs using the names provided by DLS, carried out by searching for the phone number of the owner from the Yellow Pages and the land line call centre, visiting the asset location in search of the owners, and to validate the information obtained from DLS asking the neighbors of the asset if they know the owner's name and if they can share his/her phone number with the consultant, calling the PAP if his/her number is available, or otherwise trying to contact a close relative (father, mother,	1. Many cases were solved through a second visit to DLS but unfortunately the DLS representative was cooperative only enough to allow access to the files without providing the consultant with copies of the asset registration sheet. 2. Door to door visits to the PAPs without appointments, or visits to their neighbors attempting to gather information on the ownership was attempted. Some succeeded to collect land use planning and parcelization maps from the neighbors. 3. Several of the cases demonstrating this constraint are still pending and the consultant to continue follow-up.

Constraint	Mitigating Action	Result
	<p>brother, sister, uncle, aunt) based on the name's similarity to request the PAP contact information.</p> <p>2. Contacted the affected municipalities to gather information and copies of the land planning maps for the parcels undergoing re-organization and parceling, and on the new proposed municipal roads.</p>	
Inability to interview about 25% of the identified PAPs since some of them are living abroad, some could not be contacted over the phone or at the site, and some refused for one reason or another to meet with the survey team and fill-in the questioner	<p>1. Re-visited the site and attempted to gather information on the PAP and his/her contact details.</p> <p>2. Tried to approach a close relative of the PAP to gather his/her contact information.</p> <p>3. Made several attempts to communicate with those refusing to meet with the surveyors and tried to convene them to meet.</p> <p>4. Met representative of the PAP who is authorized by the PAP or holds enough information about the asset affected and the PAP himself/herself, such as a brother, sister, mother, father, husband, or wife.</p>	<p>1. About 50% of the 25% PAP's who could not be reached in the first time were met to complete the survey.</p> <p>2. The rest are still pending.</p> <p>3. Cases of repeated refusal to meet with the consultant and/or refusal to be interviewed will be documented and reported in the final report if they remain pending up until August 4th 2011.</p>

Appendix 2: Public Consultation Findings

Appendix 2: PAP Consultation Findings

All consultation participants welcomed the proposed Project and appreciate the Donor and the Ministry of Water and Irrigation attention to Zarqa wastewater management challenges. Most of the participants mentioned that they understand the justification for the need to acquisition some plots by the Project and the need for having the system obtaining ROW and enforcing related restrictions for the benefit of the public in the area, however some of the affected PAP mentioned that:

1. In some of the cases there will be severe impacts on some of the people since the houses are very close to each other and that this will cause significant damage to their respective properties;
2. They are afraid that the Project might be like other similar projects which leaves negative impacts during the construction phase (prolonged construction causing nuisance and discomfort of the locals, accumulation of solid waste, traffic disturbance, etc.) and during the operation phase (failing to achieve the improvement expected, having the system blocked and wastewater flooding into private houses and lands in which the ROW was obtained, causing rodents and insect problems, affecting water supply, etc.).
3. In a few cases the participants mentioned that the proposed project and ROW will severely affect their ongoing plans to construct houses and residential buildings, and in one case it was found that the ROW will need to demolish a room constructed by one of the PAP's in the ventilation zone of the plot below the street level.
4. One of the PAP's mentioned that he owns six plots in the area and the six plots will be affected by the ROW. This is not acceptable from his point of view and he mentioned that he wants to negotiate either having these plots acquisitioned by the project and fairly compensated for in full based on the market price or to compensate him for the ROW crossing of his lands. Otherwise, he rejected all other alternatives including making the house connection for his plots by the Project.
5. A few of the PAPs mentioned that they require compensation to allow the ROW crossing their properties, otherwise they reject the ROW. Many of the participants were asking if the ROW will entail financial compensation to them.
6. One of the PAPs mentioned that his building (10 apartments) will be severely affected since the ROW will be immediately in the building's only entrance. He rejected the ROW.
7. Many people mentioned that they accept the ROW on their lands as long as it has no impact on their properties and if manholes are not constructed on their respective lands;
8. A number of people rejected the ROW to cross their properties and stated that if this is unavoidable then the Project should either buy their properties or compensate them for their losses.
9. For all participating PAPs expected to be affected by the acquisition of their lands they welcomed selling their respective properties as long as the price is fair and equal to the values of similar properties in the area.
10. Some people expected to be affected by the ROW mentioned that they reject the ROW and they are willing to file their cases to the court if needed.

11. Some PAPs mentioned that they already put their property for sale and the proposed ROW will severely affect their ability to sell and the prices offered for selling. Therefore they rejected the ROW and refused to fill in the survey form with the consultant.
12. Many people mentioned that areas like Al Junieneh and Al Tatwieer Al Haddari are in need for prompt action and that the Project is kindly requested to consider them as early as possible. The same applies for Sukhneh which, according to the representative of the Jordan Environment Society, is a main source of fresh water (ground water) for Zarqa and this source is at risk of pollution by the cesspits.
13. There was some conflict between neighbors claiming that the ROW is should cross the neighboring plot in rather than his/her own property.

Appendix 3: Summary sheet on the Identified PAP's Following the Design Revision

Appendix 3: Summary sheet on the identified PAP's following the design revision

Land Acquisiton Cases

Case Ref. No.	Package Area	Number of Owners	PAP's			Gender	Owners Equity Shares	Status of PAP's Consultations	Owner Consultation Findings
			Ref. No.	Name (Arabic)	Name (English)				
27	East Zarqa	1	30	جهاد محمد ابراهيم ياسين	Jihad Mohammad Ibrahim Yassien	Male	1	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details	
41	East Zarqa	Undefined	47	The owners initially identified are: (1) Abdulfatah Shaker Mari (عبد الفتاح شاكمرعي) owner of plot number (9078), (2) Adnan Hussein Al Haj Toumeh (عدنان حسين الحاج طعمة) owner of plots (9079, 9081 and 9083), (3) Yousef Ahmad Fayez Mustafa (يوسف أحمد فايز مصطفى) owner of plot number (9080), (4) Hamed Ahmad Ali Awad (حامد أحمد علي) owner of plot number (9082), and Sami Sadeq Hassan Abdulghani (سامي صادق حسن عبد الغني) owner of plot number (9084).	Undefined		Insufficient Information	PAP's were initially identified, contacted but were not consulted or surveyed since the specific affected plot could not be identified at this stage due to lacking information from DLS .	
74	West Zarqa	6	98	عايد خليفة عايد الخلايلة	Aied Khaliefa Aied Al Khalielah	Male	1	Consulted and surveyed	the consulted PAP requested acquisition of the whole plot and refused partial acquisition
			99	نايف خليفة عايد الخلايلة	Naif Khaliefa Aied Al Khalielah	Male	1	Consulted and Surveyed through PAP representative (Mr. Aied Khaliefa Aied Al Khalielah)	
			100	سالم خليفة عايد الخلايلة	Salem Khaliefa Aied Al Khalielah	Male	1	Consulted and Surveyed through PAP representative (Mr. Aied Khaliefa Aied Al Khalielah)	
			101	عدنان خليفة عايد الخلايلة	Adnan Khaliefa Aied Al Khalielah	Male	1	Consulted and Surveyed through PAP representative (Mr. Aied Khaliefa Aied Al Khalielah)	

Case Ref. No.	Package Area	Number of Owners	PAP's			Gender	Owners Equity Shares	Status of PAP's Consultations	Owner Consultation Findings
			Ref. No.	Name (Arabic)	Name (English)				
94	Al Russeifa	21	102	احمد خليفة عايد الخلايلة	Ahmad Khaliefa Aied Al Khalielah	Male	1	Consulted and Surveyed through PAP representative (Mr. Aied Khaliefa Aied Al Khalielah)	
			103	غازي خليفة عايد الخلايلة	Ghazi Khaliefa Aied Al Khalielah	Male	1	Consulted and Surveyed through PAP representative (Mr. Aied Khaliefa Aied Al Khalielah)	
			156	عادل صلاح احمد ابو الهيجاء	Adel Salah Ahmad Abu Al Haija'a	Male	285 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	Parciliation information are needed to confirm the specific parcel subject to acquisition and accordingly the respective PAP. According to the information available from PAP's consultation, the respective PAP to this case is most likely PAP with reference number 159. the consulted PAP requested acquisition of the whole plot and refused partial acquisition
			157	عبدالله صلاح احمد ابو الهيجاء	Abdullah Salah Ahmad Abu Al Haija	Male	1137 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			158	مصطفى عفاش عبد الزريقات	Mustafa Affash Abed Zuriqat	Male	960 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			159	ابتسام محمد محمود ابو علي	Ibtesam Mohammad Mahmoud Abu ali	Female	960 sq.m	Consulted and Surveyed through the PAP representative (her son, Rasheed)	
			126	هاني سلطي سليم عريفج	Hanee Salti Saleem Awrifaj	Male	5760 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			160	محمد نواف محمد خصيب	Mohammad Nawaf Mohammad Khaseeb	Male	1920 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			161	محمد نصير رشيد محمدامين ابو عواد	Mohammad Naseer Rasheed Mohammad Ameen Abu Awad	Male	960 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	

Case Ref. No.	Package Area	Number of Owners	PAP's			Gender	Owners Equity Shares	Status of PAP's Consultations	Owner Consultation Findings
			Ref. No.	Name (Arabic)	Name (English)				
			162	محمود علي محمود سليم	Mahmoud Ali Mahmoud Saleem	Male	1920 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			163	محمد صلاح احمد ابو الهيجاء	Mohammad Salah Ahmad Abu Al-Haijaa	Male	586 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			164	احمد عبدالله عزام العزام	Ahmad Abdullah Azzam Al-Azzam	Male	960 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			165	يحيى سليمان سلمان المزايده	Yehia Suliman Salman Al-Mazaidah	Male	1450 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			166	محمد يحيى سليمان المزايده	Mohammad Yehia Suliman Al-Mazaidah	Male	470 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			167	نوال محمد حسن ابو زاهر	Nawal Mohammad Hassan Abu Zaher	Male	720 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			168	محمد عبدالرحمن طه عبد	Mohammad Abdulrahman Tah Abed	Male	480 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			169	خيريه شريف مصطفى الداود	Khaieriyah Sharif Mustafa Ad-Dawud	Female	480 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			170	منتصر احمد محمود هوبري	Muntaser Ahmad Mahmoud Hobary	Male	800 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	

Case Ref. No.	Package Area	Number of Owners	PAP's			Gender	Owners Equity Shares	Status of PAP's Consultations	Owner Consultation Findings
			Ref. No.	Name (Arabic)	Name (English)				
			171	سندس احمد محمود هوبري	Sondos Ahmad Mahmoud Hobary	Female	400 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			172	فادي صلاح احمد ابو الهيجاء	Fadi Salah Ahmad Abu Al-Haijaa	Male	285 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			173	اكرم صلاح احمد ابو الهيجاء	Akram Salah Ahmad Abu Al-Haijaa	Male	1010 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			174	احمد عفاش عبد الزريقات	Ahmad Affash Abed Zuriqat	Male	960 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	
			175	سامي صلاح احمد ابو الهيجاء	Sami Salah Ahmad Abu Al-Haijaa	Male	537 sq.m	Probably will not be affected based on the field survey findings (new parcilization)	

ROW Cases

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
1	East Zarqa	3344	Vacant land	1	1	عودة حامد يوسف عكلوك	Odeh Hamed Yousef Aklouk	Male	Surveyed	Consulted and Surveyed
2	East Zarqa	5614	Residential Land	1	2	ورثة المرحومة ختام عبداللطيف محمد الناطور	inheritance of legacy of Khitam Abdulatif Mohammad Al-Nattor (deceased)	Female	Surveyed	Consulted but not Surveyed. i.e. A representative of the legacy inheratants (son of the deceased lady) was consulted but refused to fill in the questioner.
3	East Zarqa	9577	Vacant land	1	3	جهاد عبدالمجيد محمد ابوسلمان	Jihad Abdulmajeed Mohammad Abu Salman	Male	Surveyed	Consulted and Surveyed
5	East Zarqa	9558	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
6	East Zarqa	9505	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
7	East Zarqa	9486	Vacant land	1	6	موسى عبدالله حسين خليفة	Mousa Abdullah Hussein Khalifah	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
8	East Zarqa	9485	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
9	East Zarqa	7082	Vacant land	1	7	عيسى نقولا جبرا زيدان	Eissa Niquila Jabra Ziedan	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
10	East Zarqa	7073	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
11	East Zarqa	7056	Vacant land	1	8	ابراهيم محمد عبدالله ضمور	Ibrahim Mohammad Abdullah Dhmoor	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
12	East Zarqa	6347	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
13	East Zarqa	3763	Vacant land	1	9	وجيه عبدالله حسين عبدالرزاق	Wajeeh Abdullah Hussein Abdulrazzaq	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
14	East Zarqa	6343	Vacant land	1	5	نواف بادي غيث الغويري	Nawaaf Badi Ghaith Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
16	East Zarqa	7343	Vacant land	1	16	علي سالم عواد الغويري	Ali Salem Awaad Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
17	East Zarqa	7344	Vacant land	1	17	فايز سالم عواد الغويري	Fayez Salem Awaad Al Ghuwairee	Male	Surveyed	Consulted and Surveyed through PAP representative
18	East Zarqa	7345	Vacant land	0	18	زينب سليمان احمد النجار	Zainab Suliman Ahmad Al Najar	Female	Surveyed	Consulted and Surveyed through PAP representative
					19	سليمان احمد ثامر النجار	Suliman Ahmad Thamer Al Najar	Male	Surveyed	Consulted and Surveyed through PAP representative
19	East Zarqa	7316	Vacant land	1	17	فايز سالم عواد الغويري	Fayez Salem Awaad Al Ghuwairee	Male	Surveyed	Consulted and Surveyed
20	East Zarqa	7315	Vacant land	1	20	برجس حمد العودة حراحشة	Burjes Hamad Al-Owdeh Harahshah	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
21	East Zarqa	8553	Vacant land	1	21	منذر محمود حمود اصفر	Monther Mahmoud Hmoud Asfar	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
22	East Zarqa	8554	Vacant land	1	21	منذر محمود حمود اصفر	Monther Mahmoud Hmoud Asfar	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
23	East Zarqa	7226	Vacant land	0	22	خاميس جمعة خاميس احمد امين	Khamies Juma'a Khamis Ahmad Ameen	Male	Surveyed	Consulted and Surveyed through PAP representative
					23	بشير جمعة خاميس احمد امين	Basheer Juma'a Khamis Ahmad Ameen	Male	Surveyed	Consulted and Surveyed
					24	بهية جمعة خاميس احمد امين	Bahieah Juma'a Khamis Ahmad Ameen	Female	Surveyed	Consulted and Surveyed through PAP representative

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
					25	هيام جمعة خميس احمد امين	Heiam Juma'a Khamis Ahmad Ameen	Female	Surveyed	Consulted and Surveyed through PAP representative
					26	هيفاء جمعة خميس احمد امين	Haifa'a Juma'a Khamis Ahmad Ameen	Female	Surveyed	Consulted and Surveyed through PAP representative
					27	بسمة جمعة خميس احمد امين	Basmah Juma'a Khamis Ahmad Ameen	Female	Surveyed	Consulted and Surveyed through PAP representative
24	East Zarqa	7241	Vacant land	1	28	علي حسن محمد زعبلوي	Ali Hasssan Mohammad Za'ablawaree	Male	Surveyed	Consulted, Not Surveyed
25	East Zarqa	7246	Vacant land	1	28	علي حسن محمد زعبلوي	Ali Hasssan Mohammad Za'ablawaree	Male	Surveyed	Consulted, Not Surveyed
26	East Zarqa	10503	Vacant land	1	29	هشام محمد محسن الظاهر	Hisham Mohammad Mohsen Al Dhaher	Male	Surveyed	Consulted, Not Surveyed
28	East Zarqa	7685	Vacant land	1	31	امينة محمد فؤاد ابو سنيينة	Amenah Mohammad Fauaad Abu Snieneh	Female	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
30	East Zarqa	7389	Vacant land	1	33	سلمى بطرس طنوس	Salma Butus Tanous	Female	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
31	East Zarqa	297	Vacant land	0	34	غير محدد	Undefined		Surveyed	Insufficient information about the plot. PAP's could not be identified
32	East Zarqa	84	Vacant land	6	35	زياد بهجت محمد الحمصي	Ziad Bahjat Mohammad Al Hemsee	Male	Surveyed	Consulted, Not Surveyed
			Vacant land		36	محمد نور بهجت محمد الحمصي	"Mohammad-Noor" Bahjat Mohammad Al Hemsee	Male		Consulted and Surveyed through PAP representative
			Vacant land		37	رياض بهجت محمد الحمصي	Riyad Bahjat Mohammad Al Hemsee	Male		Consulted and Surveyed through PAP representative
			Vacant land		38	محمود بهجت محمد الحمصي	Mahmoud Bahjat Mohammad Al Hemsee	Male		Consulted and Surveyed through PAP representative

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
			Vacant land		39	انور بهجت محمد الحمصي	Anwar Bahjat Mohammad Al Hemsee	Male		Consulted and Surveyed through PAP representative
			Vacant land		40	عبدالله بهجت محمد الحمصي	Abdullah Bahjat Mohammad Al Hemsee	Male		Consulted and Surveyed through PAP representative
33	East Zarqa	83	Vacant land	1	41	احمد صالح محمد ابو غليون	Ahmad Saleh Mohammad Abu Ghaliun	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
99	East Zarqa	11260	Vacant land	1	179	منذر ابراهيم مكرم النشوات	Monther Ebrahim Makram Al-Hamarnah	Male	Surveyed	not consulted
100	East Zarqa	11259	Vacant land	1	179	منذر ابراهيم مكرم النشوات	Monther Ebrahim Makram Al-Hamarnah	Male	Surveyed	not consulted
101	East Zarqa	11258	Vacant land	1	180	عمار سالم سلمان الحمارة	Ammar Salem Salman AL- Hamarnah	Male	Surveyed	not consulted
102	East Zarqa	11257	Vacant land	1	180	عمار سالم سلمان الحمارة	Ammar Salem Salman AL- Hamarnah	Male	Surveyed	not consulted
103	East Zarqa	11256	Vacant land	1	180	عمار سالم سلمان الحمارة	Ammar Salem Salman AL- Hamarnah	Male	Surveyed	not consulted
104	East Zarqa	10688	Vacant land	1	181	سالم سلمان حنا الحمارة	Salem Salman Hana Al-Hamarnah	Male	Surveyed	not consulted
37	East Zarqa	6094	Government land	1	45	مجلس بلدية الزرقاء	Zarqa Municipality Council		Surveyed	Contacted, awaiting official response for consultation and survey
38	East Zarqa	6071	Government land	1	45	مجلس بلدية الزرقاء	Zarqa Municipality Council		Surveyed	Contacted, awaiting official response for consultation and survey
39	East Zarqa	6135	Government land	1	46	المؤسسة العامة للاسكان و التطوير الحضري	Housing and Urban Development Corporation		Surveyed	Contacted, awaiting official response for consultation and survey
40	East Zarqa	6129	Government land	1	46	المؤسسة العامة للاسكان و التطوير الحضري	Housing and Urban Development Corporation		Surveyed	Contacted, awaiting official response for consultation and survey
43	West Zarqa	701	Government land	1	49	خزينة دولة	Treasury Land - Government of		Surveyed	No need for consultation and survey (governmental land)

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
							Jordan			
44	West Zarqa	701	Government land	1	49	خزينة دولة	Treasury Land - Government of Jordan		Surveyed	No need for consultation and survey (governmental land)
105	West Zarqa	7232	Vacant land		182		Undefined		Surveyed	not consulted
106	West Zarqa	7234	Vacant land		183		Undefined		Surveyed	not consulted
107	West Zarqa	643	Vacant land		184		Undefined		Surveyed	not consulted
108	West Zarqa	579	Residential land		185		Undefined		Surveyed	not consulted
56	West Zarqa	3680	Residential land	0	69	خالد محمد محمود رحال	Khaled Mohammad Mahmoud Rahhal	Male	Surveyed	Consulted and Surveyed
					70	عبدالله محمد عبدالله العوده	Abdullah Mohammad Abdullah Al-Odeh	Male	Surveyed	Consulted, Not Surveyed
109	West Zarqa	3686	Residential land		186		Undefined		Surveyed	not consulted
110	West Zarqa	3670	Vacant land		187		Undefined		Surveyed	not consulted
59	West Zarqa	794	Vacant land	0	79	مصطفى احمد يوسف مسعد	Mustafa Ahmad Yousef Mas'ad	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
					80	صبري احمد يوسف مسعد	Sabri Ahmad Yousef Mas'ad	Male		PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
					81	وهيب احمد يوسف مسعد	Waheeb Ahmad Yousef Mas'ad	Male		PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
60	West Zarqa	12	Vacant land	1	49	خزينة دولة	Treasury Land - Government of Jordan		Surveyed	Governmental land

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
61	West Zarqa	unknown		0	82	لم يتمكن الاستشاري من الوصول الى اسم المالك Owner	Undefined		Was not surveyed due to the shortage in plot location information	Insufficient information about the plot location. PAP's could not be identified
67	West Zarqa	868	Residential land	1	90	خضر أحمد اسماعيل خليل	Khader Ahmad Ismael Khaleel	Male	Surveyed	Consulted and surveyed
69	West Zarqa	869	Vaccant Land (Commercial)	1	92	أحمد خليل محمد الزيود الخلالية	Ahmad Khaleel Mohammad Al-Zioud Al-Khalailah	Male	Surveyed	Consulted and surveyed
111	West Zarqa	950	Residential land	1	188		Undefined	undefined owner	Surveyed	not consulted
71	West Zarqa	942	Residential land	0	94	جهاد محمود يوسف ابو منسي	Jihad Mahoud Yousef Abu Mansee	Male	Surveyed	Consulted and surveyed
72	West Zarqa	1567	Residential land	1	95	بلال محمد سلامة الخلالية	Bilal Mohammad Salamah Al-Khalilah	Male	Surveyed	Consulted and surveyed
112	West Zarqa	589	Vacant land	1	189	صبري على محمد مزيد	Sabree Ali Mohammad Mazied	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
77	West Zarqa	692	Government land	1	110	وزارة التربية والتعليم	Ministry of Education (two schools: (1) Mecca and (2) Anwar Nussiebah schools)		Surveyed	Contacted, awaiting official response for consultation and survey
78	West Zarqa	unknown	Residential land	0	111		Undefined		Surveyed	Insufficient information about the plot. PAP's could not be identified
83	Al Russeifa	3884	Government land	1	110	وزارة التربية والتعليم	Ministry of Education		Surveyed	Contacted, awaiting official response for consultation and survey
84	Al Russeifa	4259	Vacant land	1	116	رشيدة راشد خضر حمودة	Rashedah Rashed Khader Hammoudeh	Female	Surveyed	Consulted and surveyed

Case Ref. No.	Package Area	Plot Number	Land Used	Number of Owners	PAP's			Gender	Plot Survey Status by RAP Team	Status of PAP's Consultations
					Ref. No.	Name (Arabic)	Name (English)			
88	Al Russeifa	147	Vacant land	1	123	حورية نافع مصطفى محمود	Horiyah Nafea'a Mustafa Mahmoud	Female	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
89	Al Russeifa	37	Vacant land	0	124	حسن رشيد مرشد احمد	Hassan Rasheed Mershed Ahmad	Male	Surveyed	Consulted and surveyed
					125	محمد رشيد مرشد احمد	Mohammad Rasheed Mershed Ahmad	Male		Consulted, Not Surveyed
90	Al Russeifa	80	Vacant land	1	126	هاني سلطي سليم عريفج	Hanee Salti Saleem Awrifaj	Male	Surveyed	PAP(s) were identified, but were not consulted or surveyed due to absence of their contact details
95	East Zarqa	3372		1	176	هاني جبر حمدان الحناوي	Hani Jaber Hamdan Al-Henawi	Male	Surveyed	PAP was not consulted or surveyed since the respective plot was not initially provided by the ROW report. the identification of the plot to be possibly affected was suggested by the RAP team based on the site visit and the information available from the design maps
113	East Zarqa	9579	Vacant land							Was not surveyed since it was identified as impact minimization after the completion of the draft report
114	East Zarqa	314								Was not surveyed since it was identified as impact minimization after the completion of the draft report
115	East Zarqa	344								Was not surveyed since it was identified as impact minimization after the completion of the draft report
116	East Zarqa	284								Was not surveyed since it was identified as impact minimization after the completion of the draft report
117	East Zarqa	195								Was not surveyed since it was identified as impact minimization after the completion of the draft report
118	West Zarqa	7019								Was not surveyed since it was identified as impact minimization after the completion of the draft report
119	Al Russeifa	148	Vacant land							Was not surveyed since it was identified as impact minimization after the completion of the draft report

Appendix 4: Summary of PAP's Information for Initially Assessed Resettlement Cases

Appendix 4: Summary of consulted PAP's opinion regarding their respective resettlement cases (including cases which have been taken out during minimization stage)

Questioner Code	PAP Address				Total Area of the affect Asset (m ²)	Type of Effect	PAP Name	Gender	PAP Decision	Willingness to negotiate LA/ROW with the Project Owner	PAP Average monthly income from all sources (JOD)
	Neighborhood	Basin No.	Plot No.	Package Area							
1567-3	Al Falah	3 Al Falah	1567	West Zarqa	300	ROW	بلال محمد سلامة الخلايلة Billal Mohammad Salamah Al Khalailah	Male	يوافق بمرور الصرف الصحي بشرط التعويض عن انخفاض سعر الأرض Accept the ROW with the condition of being compensated for the decline in the market price of the asset because of the project effects	Yes	
1591-3	Al Falah	3 Al Falah	1591	West Zarqa	1200	LA	عبدالله فتحي صادق الدبك Abdullah Fathi Sadeq El Dabak	Male	موافق بدون شروط Unconditional approval	Yes	
941-3	Al Falah	3 Al Falah	-941 940	West Zarqa	900	ROW	باسم رشيد عبدالرحمن اللحام Basim Rasheed Abdulrahman Al-Laham	Male	لا يرغب و يطالب بنقل الخط إلى القطع القريبة Does not accept the ROW in his land and demand the transfer of the line to another plot in the area	Yes	
942-3	Al Falah	3 Al Falah	942	West Zarqa	300	ROW	جهاد محمود يوسف ابو منسي Jihad Mahmoud Yousef Abu Mansee	Male	يقبل بشرط إنتفاع بدون ضرر Accept with the condition of not causing any damage or loss to his property	Yes	
943-3	Al Falah	3 Al Falah	943	West Zarqa	1000	ROW	موسى عبدالكريم عديربه حماد Mousa Abdulkareem Abd Rabuh Hammad	Male	يقبل بشرط ان تمت المجاري من اطراف الأرض دون التأثير على القطعة الرئيسية Accept with the condition that the conveyor system should go to the borders of the plot and not to harm, damage, pass through or split the main plot	Yes	
1932-2	Al Qadesiah	2	1932	Russiefa	1009.5	ROW	إيمان نبهان أمين طعم الله Iman Nabhan Ameen Toumallah	Female	يقبل بشرط إنتفاع بدون ضرر وأن يقوم المشروع بإرجاع جميع الأمور إلى ما كانت عليه سابقا و لا يريد أي تعويضات مالية Accept with the condition of not causing any damage or loss to his property, and if damage is caused then to restore the damaged property to its original condition. Financial compensation is not needed.	Yes	70
1932-2	Al Qadesiah	2	1932	Russiefa	1009.5	ROW	جميلة خليل عطية المصري Jamilah Khaleel Attyah Al Masri	Female	يقبل بشرط إنتفاع بدون ضرر وأن يقوم المشروع بإرجاع جميع الأمور إلى ما كانت عليه سابقا و لا يريد أي تعويضات مالية Accept with the condition of not causing any damage or loss to his property, and if damage is caused then to restore the damaged property to its original condition. Financial compensation is not needed.	Yes	
3385-3	Al Qadesiah	3 Al Falah	3385	Russiefa	500	ROW	خالد حسن حمد العطيات Khaled Hassan Hamad Al Attyat	Male	يقبل بشروط Conditional acceptance. Terms to be negotiated with the project owner	Yes	
3380-3	Neighborhoods (Hai) Table	3 Al Falah	3380	Russiefa	971	ROW	رضا عبد الكريم محمد الخلايلة Reda Abulkareem Mohammad Al Khalailah	Male	لا يرغب Do not accept	Yes	

3687-3	Duwaik	3 Al Falah	3687	Russiefa	1075	ROW	موسى إبراهيم عبدالفتاح الشريف Mousa Ibrahim Abdulfatah Esh Sharif	Male	يرفض بشدة لأن التأثير كبير Strongly rejected because the effect is significant	Yes	850
3687-3	Duwaik	3 Al Falah	3687	Russiefa	1075	ROW	نضال سعيد موسى مقالة Nidal Saeed Mousa Maqaldah	Male	يرفض بشدة لأن التأثير كبير Strongly rejected because the effect is significant	Yes	
475-1	Es Salam	Um Bayiadah 10	475	West Zarqa	788.150	ROW	قويدر سعيد إبراهيم عثمان Quwaider Saeed Ibrahim Othman	Male	يقبل بدون شروط Unconditional approval	Yes	
475-1	Es Salam	Um Bayiadah 10	475	West Zarqa	788.150	ROW	ليلى عوض عبدالقادر القزاز Laila Awad Abdulkader Al Qazaz	Female	يقبل بشرط إنتفاع بدون ضرر وأن يقوم المشروع بإعادة بناء السور و الأشجار لوضعها السابق Accept with the condition of not causing any damage or loss to his property, and if damage is caused then to restore the damaged property to its original condition (Building the wall, returning the trees, etc.).	Yes	
474-1	Es Salam	Um Bayiadah 10	474	West Zarqa	500	ROW	فواز احمد حسين ماضي Fawaz Ahmad Hussein Madi	Male	يقبل بشرط إنتفاع بدون ضرر و عدم وضع أي منهل في أرض المالك وأن يقوم المشروع بإرجاع و إعادة الوضع كما كان عليه سابقا بعد تنفيذ الحفر علما بأن المالك قام بتبليط الجهة المراد تنفيذ المشروع بها Accept with the condition of not causing any damage or loss to his property, and not to construct manholes in this plot if damage is caused then to restore the damaged property to its original condition. Note, the owner have recently paved (tiles) the area where the conveyor is supposed to be constructed	Yes	
293-8	Neighborhoods (Hai) Table	8 Duwaik	293	West Zarqa	360	ROW	نضال عزت أحمد أبوليلي Nidal Ezzat Ahmad Abu Laila	Male	Does not accept and asks the project to find other alternatives for the conveyor	Yes	
868-3	Al Falah	3 Al Falah	868	West Zarqa	492.68	ROW	خضر احمد اسماعيل خليل Khader Ahmad Ismael Khalil	Male	يقبل بدون شروط Unconditional approval	Yes	
1873-10	Es Salam	10	1873	West Zarqa	405	ROW	ايهاب سليم فليح ابو شحاده Ehab Saleem Flaieh Abu Shahadeh	Male	يقبل بشروط Conditioned acceptance	Yes	
1591-3	Al Falah	3 Al Falah	1591	West Zarqa	1400	LA	سامر علي سعد ابو نادي Samer Ali Saad Abu Nadi	Male	يقبل بشروط Conditioned acceptance	Yes	
1591-3	Al Falah	3 Al Falah	1591	West Zarqa	1400	LA	ثائر جمعة عبدالحافظ عبدالحافظ Thaer Abudlhafez Abudlhafez	Male	يقبل بدون شروط Unconditional approval	Yes	
1591-3	Al Falah	3 Al Falah	1591	West Zarqa	1400	LA	محمد فتحي صادق الدبك Mohammad Fathi Sadeq El Dabak	Male	يقبل بدون شروط Unconditional approval	Yes	
3669-3	Al Falah	3 Al Falah	3669	West Zarqa		ROW	محمد محمود حسين حزين Mohammad Mahmoud Hussein	Male	يقبل بدون شروط Unconditional approval	Yes	

							Hzaïen				
3680-3	Al Falah	3 Al Falah	3680	West Zarqa	510	ROW	خالد محمد محمود رحال Khaled Mohammad Mahmoud Rahal	Male	يقبل بشروط و يرغب بالتفاوض Conditioned acceptance - Wants to negotiate	Yes	
829-3	Al Falah	3	829	West Zarqa	325	ROW	محمد عبد العزيز عبدالرحمن نصرالله Mohammad Abdulaziz Abudrahman Nassrallah	Male	يرفض بشدة لأن التأثير كبير (الممر بجانب البيت حيث توجد قواعد البيت سمكها 70 سم) Strongly rejected because the effect is large (the corridor next to the house where the basis of the house are built on the ground and are 70 cm thick)	Yes	
869	Al Falah	3 Al Falah	869	West Zarqa	646.5	ROW	احمد خليل محمد زيود الخلايلة Ahmad Khalim Mohammad Zieued Al Khalailah	Male	يقبل بشروط و يرغب بالتفاوض Conditioned acceptance - Wants to negotiate	Yes	
9558-4	Al Batrawi	4	9558	East Zarqa	512	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
6343-4	Al Batrawi	4	6343		500	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
6347-4	Al Batrawi	4	6347	East Zarqa	545.55	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
9505-4	Al Batrawi	4	9505	East Zarqa	500	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
7073-4	Al Batrawi	4	7073	East Zarqa	509.97	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
9485-4	Al Batrawi	4	9485	East Zarqa	503	ROW	نواف بادي غيث الغويري Nawaf Badi Ghaith Al Ghuwairee	Male	لا يرغب Does not accept (reject)	No	
9576-4	Al Batrawi	4	9576	East Zarqa	500	ROW	خالد بادي غيث الغويري Khaled Badi Ghaith Al Ghuwairee	Male	يقبل بشروط و يرغب بالتفاوض Conditioned acceptance - Wants to negotiate	Yes	
6120-4	Al Batrawi Al Janoubee	4	6120	East Zarqa	330	ROW	هند كامل عبد القادر قدورة Hen Kamel Abdulqader Qadoorah	Female	يقبل بشروط و يرغب بالتفاوض (محاولة تقادي الهدم للبناء سواء كان سور أو غيره و إذا تم هدم اي شيء من الممتلكات إعادته كما كان عليه) Conditioned acceptance - Wants to negotiate (to avoid any damage to the house or any part of it, and whatever is damaged or affected should be restored/rehabilitated to its original condition)	Yes	

4593-11	الجنينة	زواهرة 11	4593	West Zarqa	656.14	ROW	تيسير مصباح اسماعيل شهاب الدين Taiseer Musbah Ismael Shuhab Ed Dieen	Male	يقبل بشروط و يرغب بالتفاوض (إعادة الأوضاع إلى ماكانت عليه بعد الإنتهاء من تنفيذ المشروع بالإضافة إلى شبك المنزل بالصرف الصحي بدلا من إستخدام الممتلكات الخاصة بالمالك) Conditioned acceptance - Wants to negotiate (to avoid any damage to the house or any part of it, and whatever is damaged or affected should be restored/rehabilitated to its original condition, and to have the house connection made by the Project to compensate for using the owner private property)	Yes	
5016-4	Al Batrawi Al Janoubee	Al Batrawi Al 4 Janoubee	5016	East Zarqa	536.07	ROW	محمد عطا الله منير الغويري Mohammad Attallah Munier Al Ghuwairee	Male	يقبل بشروط و يرغب بالتفاوض Conditioned acceptance - Wants to negotiate	Yes	
1554-3	Al Falah	3 Al Falah	1554	West Zarqa	565	ROW	الهام سالم محمد احمد Elham Salem Mohammad Ahmad	Female	يقبل بدون شروط Unconditional approval	Yes	50
1607-3	Al Falah	3 Al Falah	1607	West Zarqa	3200	LA	عايد خليفة عايد الخلايلة Aied Khaleifah Aied Al Khalailah	Male	يقبل بشروط و يرغب بالتفاوض Conditioned acceptance - Wants to negotiate	Yes	
3658-3	Al Falah	3 Al Falah	3658	West Zarqa	251.6	ROW	عبدالله احمد قاسم قندح Abdullah Ahmad Qassem Qandah	Male	يقبل بدون شروط Unconditional approval	Yes	

Appendix 5: RAP Costs and Budget (Confidential Annex)

Appendix 5: RAP Costs and Budget (Confidential Annex)