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Municipal Development & Lending Fund



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Environmental and Social Management Framework Environment and Social Impact Assessment

Municipal Development Program Phase II

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1 Preface

The Palestinian Authority (PA) has developed the Municipal Development Program (MDP) to support the Palestinian Reform and Development Plan (PRDP) which identifies fiscal autonomy and discipline at the local level as a key area of reform and highlights the need to build the operational, administrative and financial management capacity of local government bodies. This role is being continued through MDP Phase I and Phase II.

The program identifies the Municipal Development and Lending Fund (MDLF) as the primary source of development-linked assistance to municipalities and as a support mechanism for administrative and financial management reforms. MDLF works in close collaboration with the Ministry of Local Government (MoLG), responsible for regulating the sector and setting policies. MDP provide performance based grants to municipalities, thereby creating incentives for municipalities to improve their performance.

To proceed with the preparation of any project under B environmental category, it is necessary to follow the Environmental and Social Impact Assessment (ESIA)/ Environmental and Social Management Framework (ESMF) which is an integral part of the Operations Manual of the Municipal Development Fund (MDLF) prepared for the purposes of implementing the World Bank supported Municipal Development Program Phase II (MDP Phase II) in compliance with the national and local policies and regulations as well as the World Bank safeguard policies and procedures. ESIA/ ESMF covers environmental, cultural, and social aspects of project management.

ESIA/ ESMF study for MDP Phase II should provide the following key outputs:

Identify and assess the environmental and social impacts, both adverse and beneficial, in the project's area of influence in order to avoid, or where avoidance is not possible, minimize, mitigate, or compensate for adverse impacts on workers, affected communities, and the environment.

- Identify the types, nature and scale of interventions under MDP project;
- Determine based on knowledge of these interventions, whether the proposed investments may result in environmental or social impacts;
- Propose mitigation and monitoring measures in the form of a sub-project-ESIA/ ESMF and applicable safeguard documentation to address potential impacts;
- Evaluate the existing institutional capacity of the Local Government Units (LGU) to manage the recommendations for implementing the measures outlined in the ESMF;
- Provide recommendations to build capacity and strengthen environmental and social management;
- Develop procedures to identify and address potential environmental and social safeguard issues of the projects;
- Provide a detailed budget for mainstreaming environmental and social issues into the MDP Phase II project budget.

The ESMP is part of ESMF document where it presents the environmental and social criteria for selecting the sub-projects to be covered by MDP and give details for administering and monitoring the potential environmental and social impacts and their mitigation measures. The environmental and social matrices annexed to the ESMF provide means to be considered during the main phases of the projects; design, implementation, operation, control and monitoring.

2 MDP Project Description

The Municipal Development Program (MDP) is a groundbreaking effort in development and reform designed by the Municipal Development and Lending Fund (MDLF), under the guidance of the Palestinian National Authority. The MDP recognizes that the first step towards improving municipal services lies in better managed and more accountable local governments.

The MDP provides infrastructure grants to Palestinian municipalities, and combines this with improved performance, and improved capacity in operations, planning, and financial capacity. Its cornerstone is the Grant Allocation Mechanism, a formula based method for distributing funds to municipalities for capital investments based on need, population, and good management practices.

The program identifies the Municipal Development and Lending Fund (MDLF) as the primary source of development-linked assistance to municipalities and as a support mechanism for administrative and financial management reforms. MDLF works in close collaboration with the Ministry of Local Government (MoLG), responsible for regulating the sector and setting policies. MDP will provide performance based grants to municipalities, thereby creating incentives for municipalities to improve their performance.

The MDP is a phased developmental program, with the first phase lasted for three years. MDP Phase I cycles 1 and 2 has reached all 134 municipalities in the West Bank and Gaza and is expected to finish by end of March 2013. MDP Phase II is expected to be covered in two cycles over 36 months and to be executed early 2013.

2.1 MDP Phase II Objective

The objective of MDP Phase II is to improve municipal management practices and services for better accountability. As well as to empower the beneficiary municipalities' staffs in gaining the know-how and experience needed to improve their capacities and raise their self-dependence in implementing their developmental projects. The key performance indicator is to graduate 60% of the municipality's one level up the performance category in which they are currently classified, thereby contributing to the higher level goals of the MDP.

2.2 MDP Project Components

The MDP has four windows as follows:

Window 1: Provides municipalities with performance based grants for municipal service delivery, using the newly created Grant Allocation Mechanism. Municipalities decide on how to use the funds based on their Strategic Development and Investment Plans (SDIP) and consultation with citizens.

Window 2: Promotes learning and innovation to facilitate municipal development, including implementation of national policy directives. The MDP supports the PNA in its goal to encourage amalgamation of local governments to achieve better efficiencies and economies of scale. It also establishes pilot programs to improve revenue collection, responsiveness, and community involvement.

Window 3: Helps municipalities to improve their performance rankings and is designed to complement the Grants Allocation Mechanism. It provides technical assistance to improve financial management, planning capacities and technical capabilities, particularly in operations and maintenance.

Window 4: Provides funding for program management, client and citizen satisfaction assessments, technical assistance for municipalities, and outreach programs to make sure citizens and municipal leaders have a full understanding of the Grant Allocation Mechanism and the MDP development objectives. It helps citizens to understand where their municipality is ranked, and encourages leaders to meet higher performance levels.

Accordingly MDP Phase II window (1) will finance investments or activities that are within the legal mandate of municipalities as per the Local Authorities Law of 1997 or revision thereof. Considering these sectors and not limited to:

1. Water and wastewater services:

Installation, maintenance and rehabilitation of new and/or existing municipal water and sewerage networks(if only served by WWTP), rehabilitation of wells and reservoirs; provision of chemicals for water purification (Gaza only); repair and maintenance of equipment, such as pumps, generators, vacuum tanks, and vehicles; purchase of spare parts (based on an existing maintenance plan), and fuel (Gaza only); the extensions of networks and purchase of new equipment and vehicles only for projects being part of the priorities of a municipal development plan.

2. Solid Waste Management:

Solid waste containers, tools, trucks and compactors (only if landfill operated by the municipality), spare parts for solid waste trucks, equipment and materials based on a solid waste management concept; in addition for Gaza: service contracts for solid waste collection, as well as labor, dumping fees, fuel, vehicle lubricants, insurance, and other related direct running costs for municipal service provision.

3. Road rehabilitation and maintenance services:

Goods and works for construction, maintenance, rehabilitation and reconstruction of new/existing internal roads, including traffic signs, road line demarcations, safety rails, traffic signals, street lighting, sidewalks, road maintenance tools and equipment; fuel and vehicle insurance (only in Gaza).

4. Public Facilities:

Establishment/construction, rehabilitation and equipment of parks, kindergartens, youth centers, cultural centers, public market infrastructure, municipal buildings and facilities, and bus stations.

2.3 Implementation Arrangements

The MDLF, as the entity with the legal mandate to provide direct development assistance to municipalities, will be responsible for managing the MDP. In addition the MDLF is the PA's preferred mechanism for channeling reform and development assistance to local governments in Palestine per the PRDP. To date most of the fund have been spent on developing the Municipalities capacities including emergency and operational project in Gaza Strip only rather than program first years were most of the funds were spent on emergency operations.

Since its establishment, the MDLF portfolio of programs and projects includes several development partners, including the World Bank, SIDA, the Dutch, AFD, Danida, KFW, GTZ, EU, Japan, and the Italian Cooperation and carried forward the functions of previously existing project implementation units under MoLG.

MDLF programs and projects could be categorized around the following support schemes: (i) Emergency support especially that related to infrastructure rehabilitation, and job creation; (ii) Development support which intend to foster the development agenda in the Palestinian Community despite the current deteriorated situation; (iii) Institutional Development and Technical Assistance support that goes in parallel with the infrastructure investments; and (iv) Innovative Window support to test and pilot certain government policies related to the local government development.

MDP sets the ground work for Sector Wide Approach for municipal development and this will be the overarching program the MDLF will implement into which other projects and programs will be integrated over time. Projects implemented through the MDP will be supervised and managed by MDLF in cooperation with Municipalities and Joint Service Councils for Planning and Development.

2.4 Institutional Structure

The implementation responsibility of MDP will be with MDLF with close cooperation and coordination with MoLG and the participating/eligible municipalities.

The MDLF has a qualified core team whom will follow implementation of ESIA/ ESMF and provide the continuity of the understanding of the World Bank and other donors' and the national environmental policies as well as the experience on the ground in monitoring and mitigating the anticipated environmental and social implications created by the implemented sub-projects.

This Program would further develop such capacity for financing training to MDLF environmental and social officers who would be responsible for reviewing, advising and reporting on environmental and social issues.

MDLF would also benefit from the services of a number of local consulting firms in both the West Bank and in Gaza who have been involved over the past (10) years in internationally financed municipal projects and have developed a good understanding of different donor's environmental and social policies. These firms will be asked to follow up the environment indicators and social safeguards monitoring and report on the compliance (or lack of it) with the ESMF. Such experiences would be tapped to help MDLF in supervising sub-projects on the ground and providing advice and guidance on environmental issues and mitigation measures to Municipalities; furthermore; Municipalities have proven to have the basic knowledge and willingness to implement and follow environmental and social considerations according to national and World Bank policies.

3 Environmental and Social Management Framework

3.1 Introduction

This ESIA/ ESMF is a technical day-to-day guide for implementing MDP Phase II in the environmentally and socially responsible manner and with full preservation of cultural heritage of the region. It provides guidance for screening sub-project proposals for the risks of deteriorating natural environment, damaging cultural heritage, and resulting in negative social impacts. Based on the outcome of risk identification, ESMF offers two formats for environmental, cultural heritage, and social review and for planning mitigation measures. ESIA/ ESMF also carry uniform templates to facilitate conducting subproject screening, review, and environmental and social management planning for infrastructure sectors.

3.2 Environmental and Social Safeguards

MDP Phase II must be implemented in full compliance with the national and local legislation, including laws, regulations, and standards governing environmental management, social protection, and preservation of cultural heritage applied by the Palestinian National Authority.

As far as the World Bank provides core financing for the program implementation, the safeguard policies of the World Bank also apply. The Program is classified as environmental Category B with subproject rating as higher or lower risk category B.

The Program is classified as environmental Category B with subprojects rated as higher or lower risk category B. The project therefore triggers **OP/BP 4.01 Environmental Assessment**. The project excludes any sub-project classified as Category A :

- Dams and reservoirs;
- Forestry production projects;
- Industrial plants (large-scale) and industrial estates;
- Irrigation, drainage, and flood control (large-scale);
- Land clearance and leveling;
- Mineral development (including oil and gas);
- Port and harbor development;
- Reclamation and new land development;
- Resettlement and all projects with potentially major impacts on people;
- River basin development;
- Thermal and hydropower development; and
- Manufacture, transportation, and use of pesticides or other hazardous and/or toxic materials.
- Digging new water wells

In addition MDP II, World Bank financed projects will trigger **OP/BP 4.09 Pest management**.

On the other hand MDP Phase II will exclude any subproject that triggers:

- **OP/BP 4.11 Physical Cultural Resources.**
- **OP/Bo 4.12 Involuntary Resettlement**

Any subprojects that could trigger the involuntary resettlement policy (OP 4.12) will be excluded, and a respective negative list is being prepared as part of the Operational Manual. In other words, financing should not be provided to subprojects that result in direct economic and social impacts through the: (1) 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 (2) involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

Municipalities, when submitting a project proposal/appraisal to MDLF, would have accomplished all legal requirements acquired by and respecting the revised Palestinian Basic Law of 2003, the Jordanian Law No. 79 of 1966 The Cities, the Villages and Buildings Regulating Law, and the Buildings and Regulation Bylaw for Local Authorities No. 5 for 2011.

Therefore, some negative environmental impacts which are easily mitigated may occur due to the implementation of the rehabilitation and maintenance sub-projects. As a result, a detailed Environmental and Social Management Framework (ESMF) was prepared for the program with the aim to provide a review, analysis and recommendations of the best mitigation measures that the project management team shall consider during implementation. Furthermore, ESMP for each sector is to be integrated to facilitate ESMF implementation.

3.3 Subproject Screening and Approval

Environmental Screening (**Annex 1**) and Social Screening (**Annex 2**) would take place at an early stage of the MDP subproject cycle. The screening and review process will be conducted by the Environmental and Social Officers. While risks associated with various subproject may vary from high or low risk, all of them are expected to fall under environmental Category B. The screening will exclude subprojects that might trigger category “A” subprojects, physical cultural heritage per the World Bank Operational Policy 4.11 specific to Physical Cultural Resources, and World Bank Operational Policy 4.12 related to Involuntary Resettlement.

To screen the Pest Control material, the Municipality shall follow Provisional Instructions for Pest Control Management in **Annex 6**, and to include the list of requested material, quantities required, in addition to provide availability of trained staff, and announcement procedure.

The screening process including documentations, checklists, and site-specific Environment and Social Review in order to verify sector ESMPs for which is detailed in the MDLF Technical Manual.

As for the screening process in terms of social perspective, it includes documentation, checklists (SDIP, Community Participation workshops and social safeguards) and social impact mitigation measures.

A standard appraisal and mitigation matrix will be part of the specifications for the contractor, and will form the basis of regular monitoring. The ESMP matrix based on the sectors and consisting of phases, and potential environmental and social impacts, if any, due to the project, mitigation measures, operation and supervision (**see Annex 4**).

From previous experience within MDP projects the risks associated with various subproject may vary, all of them are expected to fall under environmental Category B which may carry relatively higher or lower risks.

3.4 Environmental and Social Management Plan

3.4.1 Objectives and Features

The objective of the ESMP is to cater to the environmental and social needs of the MDP in a simple, responsive and cost effective manner that will not unnecessarily overload or impede the project cycle. The ESMP outlines the measures needed to address the issues identified in the ESIA. Moreover, the ESMP demonstrates proposed monitoring activities that encompass all major impacts and identify how they will be integrated into project supervision. The following activities to be carried out are outlined in the ESMP:

- Main environmental and social mitigation measures;
- Environmental and Social training and capacity program; and
- Environmental and social monitoring.

The ESMP is also considered the base of the environmental and social audit of selected projects and an assessment of the potential impacts and mitigation measures. This ESMP has been prepared based on the existing environmental and social situations and the auditing requirements. Based on the audit and assessment of the projects, the ESMP highlighted the following elements:

- Site-specific environmental and social screening review and assessment of key environmental issues.
- Identify linkages to other safeguard policies relating to the project.
- Ensure adequate consultation during the assessment process.
- Develop an Environmental and Social Monitoring Plan.
- Develop methodologies and procedures to be applied in context of the ESMP.
- Grouping the sub-projects into sectors: Roads, Water and Wastewater, Electricity, Solid waste, Public Buildings and Facilities and Chemicals.

The ESMP is prepared in compliance with the Palestinian environmental laws, Municipal bylaws and World Bank safeguard Operation policies OP.4.01, OP.4.11, O.P4.09, OP4.12 and EHS Guidelines. The ESMP provides tools for the evaluation and management of the impacted environmental and social parameters and they are:

- Dust and gases emissions,
- Noise,
- Water (wastewater, surface water discharge, storm water),
- Natural Resource, Forests and Biodiversity Areas,
- Physical and cultural resources such as archeological places,
- Construction waste,
- Accidental risks, and
- Vulnerable Atheistic, and loss of vegetation
- Land use

The risks and negative impacts of the proposed MDP projects can be minimized by addressing mitigation measures during construction and post-construction operation phases. **Annex 4** presents matrices detailing representation of the environmental and social impacts typically associated with the type of projects. These environmental matrices show the expected impacts covered by the projects, sector wise, and list the mitigation measures proposed to be implemented during and after the construction of the projects.

3.4.2 Environmental and Social Consultation, Review and Assessment

The MDLF will have the responsibility of reviewing and assessing the environmental and social feasibility of the proposed sub-projects. This will be carried out by the MDLF team who has prior experience from previous projects including EMSRP I and EMSRP II & MDP Phase I Cycle 1& Cycle 2 but will receive additional environment and Social specific orientation and training during the life of the project.

The MDLF team will also liaise with key stakeholders including the recipient municipalities and if required with the MENA for Projects where required according to the Palestinian Environmental Strategy. Moreover, PWA will be consulted regarding water projects if required. The team will also liaise with the appropriate officials from the Department of Antiquities at the Ministry of Tourism and Antiquities where needed.

Environmental and social assessment (EA and SA) takes place during the second stage of the project life cycle (preparation of project document). Projects classified under category "B" would be subjected to a simple EA, where to identify and include the relevant mitigation measures. Mitigation measures indicated in the ESMP should be included in the project design and reflected in the project document.

3.4.3 Potential Environmental and Social Impacts

MDP include activities that will, as per project sector, mainly have positive environmental and social impacts for most sectors. Positive impacts identified include the following:

Sewage and Water Projects: Sewage and water projects improve the public health of the local communities and will provide ground water protection. After construction, the implemented projects will have no impacts on most of the physical environmental factors such as noise, dust, and air pollution. Water projects will improve the quality and quantity of water and ensure more system efficiency. The rehabilitation and maintenance of water networks will also reduce the losses due to water leakage and illegal house connections. Sewage projects will improve the health conditions, reduce leakage and have positive impact on water resources.

Supply Tools and Equipment's: Such projects improve the capacities of the local community staff and enable them to carry out their tasks with less time and in safe environment. The provisions of sewer cleaning equipment, as an example, will adequately maintain the flow capacity of the sewers and will prevent damage during the cleaning operation.

Supplying Best control products to Gaza Strip Municipalities is also applicable considering the WHO and Palestinian regulations, a proven ability to safely storage, handle and dispose the products (See **Annex 6**).

Road Projects: Reduce or prevent dust, improve drainage, minimize disturbances and obstacles and ensure road safety, especially in roads close to schools and markets. Pavement and sidewalks add positively to the people's attitude towards preserving these assets and therefore keeping their localities clean and safe.

Rehabilitation of Buildings: Generally, the rehabilitation of schools, clinics, public centers or other buildings will increase the capacity of employees and improve the work environment. Building maintenance projects improve the physical conditions of the structures and improve safety conditions.

Solid waste projects: Solid waste management practices ensure natural resources protection, fewer and safer disposal sites, clean environment and minimization of environmental, cultural, social, and economic effects. The awareness activities of this sector will increase the efficiency of collection system and control illegal dumping sites. Provision of tools and equipment will enhance cleaning of streets and thus improve the health conditions; accumulation of wastes in roads and residential areas will be minimized or eliminated.

Electricity: Improvement of electricity services will improve the living and safety conditions of the people. Provision of street lighting will improve the traffic condition in heavy populated areas and will have positive impacts on accessibility and minimization of accidents and risks.

As shown above environmental and social impacts are different from project to another according to the project sector. The following tables (matrices) are listing of the overall main environmental and social impacts of the projects based on the different sectors of public facilities, electricity and power generation projects, road maintenance projects, solid waste projects and agricultural services projects. The tables list the expected environmental and social impacts and indicate whether the impact is positive, negative or neutral (no impact). These impacts are estimated based on the general information available at this stage of the project. Later and after detailed information of the projects are provided, these Environmental and Social Evaluation Matrices (ESEMs) can be modified. Two points should be made with regard to the ESEMs: (i) that the positive and 'no-impact' categories could degenerate to negative if caution is not exercised; and (ii) these impacts are often 'site-specific' and this should be taken into consideration.

Table 1 is the ESEM of the public facilities projects. These projects have mostly positive impacts, but will increase the construction wastes and produce noise and dust during construction. Therefore, management of the construction wastes and reduction measures of noise and dust are required to mitigate these impacts.

Table 1: Main Environmental and Social Impacts due to Public Facilities Projects

No.	Environmental and Social Component	Impact		
		Positive	No Impact	Negative
1.	Air Quality			X
2.	Groundwater Quality		X	
3.	Community Water Supply		X	
4.	Public Health and Services	X		
5.	Workers Health and Safety		X	
6.	Dust and Noise Reduction			X
7.	Cultural and Heritage	X		
8.	Socio-economic (Employment and Poverty Alleviation)	X		
9.	Water Courses and Wadis		X	
10.	Forests and Biodiversity Areas		X	
11.	Aesthetic	X		
12.	Waste Reduction			X
13.	Land Use	X		

Table 2 is an ESEM for the electricity and power conservation projects. The table indicates that the electricity and power conservation projects have equal number of crosses for negative and positive impacts, but this does not mean that the overall assessment of the project is neutral. Mitigation measures should be considered for the negative impacts. In addition, the impacts have different weighting factors in regard of their importance and this should be taken into consideration.

Table 2: Overall Main Environmental and Social Impacts due to Electricity and Power Conservation Projects

No.	Environmental and Social Component	Impact		
		Positive	No Impact	Negative
1.	Air Quality		X	
2.	Groundwater Quality		X	
3.	Community Water Supply		X	
4.	Public Health and Services	X		
5.	Workers Health and Safety			X
6.	Noise Reduction			X
7.	Gas emissions			X
8.	Cultural and Heritage	X		
9.	Socio-economic (Employment and Poverty Alleviation)	X		
10.	Accidental risks			X
11.	Water Courses and Wadis		X	
12.	Forests and Biodiversity Areas		X	
13.	Aesthetic	X		
14.	Land Use	X		

The road projects include construction and/or rehabilitation of roads. It may also include improvement of roads by adding signs, lighting, etc. Table 3 presents the ESEM for road maintenance projects. Rehabilitation of the roads will increase the traffic volume and result noise and dust emission. The gases that will be emitted from the cars will affect the air quality. Accidental risks and workers health and safety will be impacted. The water courses and wadis will be also impacted if the drainage systems of the roads are changed.

Table 3: Overall Main Environmental and Social Impacts due to Road Maintenance Projects

No.	Environmental and Social Component	Impact		
		Positive	No Impact	Negative
1.	Air Quality and Gas emissions			X
2.	Groundwater Quality		X	
3.	Community Water Supply		X	
4.	Public Health and Services	X		
5.	Workers Health and Safety			X
6.	Noise Reduction			X
7.	Cultural and Heritage	X		
8.	Socio-economic (Employment and Poverty Alleviation)	X		
9.	Accidental risks			X
10.	Water Courses and Wadis			X
11.	Forests and Biodiversity Areas			X
12.	Aesthetic	X		
13.	Waste Reduction			X
14.	Land Use	X		

3.4.4 Activities associated with construction and Operation phases of projects

Both construction and operation phases involve activities that can be associated with impacts on the surrounding environment and society, which need to be closely monitored by MDLF team and the assigned Technical Consultant. The project activities during construction and operation are detailed and related in Table 4 and Table 5 identifying the potential impacts on the significant environmental and social issues.

3.4.4.1 Construction Phase

Concerns generally exist in many of the project categories (education, health, transportation, water supply, etc.) during the construction phase. These concerns are usually minor and can be easily addressed using appropriate mitigation measures in the civil works contracts. The most important issues include:

- Construction and demolition waste
- Risk of damage to archaeological or historical sites
- Risk of destruction of wildlife habitats

Table 4: Construction Activities and Potential Impacts

Project Construction Activities	Significant Environmental and Social Issues				
	Agricultural Resources	Water Resources	Air Quality	Cultural and Historical Resources	Socio-economic Conditions
Demolition			✓	✓	✓
Removal of Existing Infrastructure				✓	✓
Heavy Machinery Operation			✓	✓	✓
Construction of Infrastructure		✓	✓	✓	✓
Excavations and Earthwork	✓	✓	✓	✓	✓
Construction of Buildings and Facilities			✓	✓	✓
Material Procurement	/ (for some pesticides)	✓	✓		✓
Waste Disposal (solid, liquid, hazardous, etc.)	✓	✓	✓		✓

Project Construction Activities	Significant Environmental and Social Issues				
	Agricultural Resources	Water Resources	Air Quality	Cultural and Historical Resources	Socio-economic Conditions
Wastewater Disposal	✓	✓	✓		✓
Transportation			✓	✓	✓
Accidents and Unplanned Events	✓	✓	✓	✓	✓

The Contractor shall be responsible for the safety of all activities on the site .The Contractor shall comply with the Environmental and Social Management Framework (ESMF) appended to Contract Documents and should follow up on its implementation in addition to the preservation of the archeological assets during implementation and the coordination with archeological department when required.

In case of the contractor non-compliance to the ESMF the Environmental Liabilities to Contractor Section 5and bidding documents conditions govern.

3.4.4.2 Operation Phase

Based on experience in previous projects there are concerns most typical in the operation of subprojects, primarily in the education and health sectors. General issues during operation include:

- Availability of functioning and maintained sanitation facilities (sometimes not functioning due to a water shortage);
- Improper disposal of municipal wastewater; (e.g. establishments such as schools or healthcare units may dispose their wastewater in percolation pits without conducting an assessment of the surrounding environment, so it is important to identify its sensitivity and accordingly whether there are potential environmental and/or public health risks); and
- Improper management of municipal solid waste generated by the subproject (and other potential sources). This usually results in the accumulation of municipal waste on or around the subproject premises/area.

Table 5: Operational Activities and Potential Impacts

Project Construction Activities	Significant Environmental and Social Issues				
	Agricultural Resources	Water Resources	Air Quality	Cultural and Historical Resources	Socio-economic Conditions
Transportation			✓		✓
Power Generation		✓	✓		✓
Water Supply		✓			
Solid Waste Collection and Disposal	✓	✓	✓		✓
Wastewater Collection and Disposal	✓	✓	✓		✓
Educational Training	✓			✓	
Production and Investments	✓				✓
Landscape Irrigation	✓	✓			✓
Accident and Unplanned Events	✓	✓	✓	✓	✓
Overall Project Development	✓	✓	✓	✓	

3.4.5 Safeguard Risks Associated With Subprojects

Certain types of small-scale projects can be considered of high risk (e.g. new rural roads, waste treatment plants) while others can be considered low risk (rehabilitation of wells and boreholes, construction of classrooms). High-risk subprojects are those that require a site specific EA and SA or detailed ESMP because they present potential adverse environmental and social risks. Low-risk subprojects are those that have minimal to no impacts and can be managed through the insertion of environmental check list and clauses within the construction and supervision contracts. Some types of projects such as training and capacity building or dissemination of toolkits and school accessories do not present any risk and can be appraised without any safeguard measures.

Table 6: Safeguard Risks Expected By the MDP Investment

MDP investments	No risk	Low risk	High risk
Education			
• Construction of classrooms		x	
• Teacher housing		x	
• Fencing		x	
• Provision of classroom furnishings	X		
• School supplies and medical kits	X		
• Laboratories			X
• Sports fields/recreation facilities		x	
• Functional adult literacy activities	X		
Water Supply			
• Water point rehabilitation			X
• Tertiary distribution piping		x	
• Rehabilitation of wells and springs		x	
• Spring protection	X		
• Community reservoirs			X
• Drainage canals		x	
• Water harvesting facility			X
• Water treatment plant (house and community units)			X
• Hand pumps and mechanized boreholes		x	
• Gravity water schemes		x	
Sanitation and Waste Management			
• Washing facilities		x	
• Public toilets/ pit latrines		x	
• Sewerage facilities and collection			X
• Sewage treatment units			X
• Soak pits and septic tanks		x	
• Waste disposal facility			X
• Solid waste landfill			X
• Wastewater systems			X
Health			
• Construction of health centers			X
• Healthcare waste management			X
• Dispensaries	X		
• Emergency rooms			X
• Maternity clinics			X
• Health control centers			X
• Laboratories	X		
Transportation, Communication and Energy			
• Tertiary and secondary level roads		X	
• Primary level culverts and bridges			X
• Footpaths		X	
• Rural telephone		X	
• Rural electrical distribution		X	
• Retaining walls		X	
• Public Parks & Recreation Centers			

MDP investments	No risk	Low risk	High risk
• Plantation	X		
• Swimming pools		X	
• Land use		X	

3.4.6 Cultural Heritage and Physical Cultural Resources

The definition of physical cultural resources include any movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural significance may be at the local, provincial or national level, or within the international community. MDLF will not finance any sub-project that might trigger OP 4.11.

In case of accidental findings of any antiquities or physical cultural resources that might occur during the implementation of the sub-projects, the contractor must notify MDLF and the municipality immediately. According to the applicable Jordanian Heritage law No. 51 for the year 1966, Article 15 MDLF must stop the contractor and notify the related Authority (Ministry of Tourism and Antiquities) within 3 days to take the necessary actions.

In other words, the contractor is responsible for familiarizing themselves with the following “Chance Finds Procedures” in case culturally valuable materials are uncovered during excavation:

- Stop work immediately following the discovery of any materials with possible archeological, historical, paleontological, or other cultural value; announce findings to project manager; and notify relevant authorities;
- Protect artifacts as well as possible using plastic covers; implement measures to stabilize the area, if necessary, to properly protect artifacts;
- Prevent and penalize any unauthorized access to the artifacts; and
- Restart construction works only upon the authorization of the relevant authorities.
- Control access to site where finding occurred

3.4.7 Involuntary Resettlement

MDLF will not finance subprojects within MDP Phase II including proposed investments to cause any involuntary resettlement for community groups. Any subprojects that could trigger the involuntary resettlement policy (OP 4.12) will be excluded, and a respective negative list is being prepared as part of the Operational Manual. In other words, financing should not be provided to subprojects that result in direct economic and social impacts through the: (1) 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 (2) involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

Considering that Municipality when submitting a project proposal/appraisal to MDLF would have accomplished all legal requirements acquired by and respecting the revised Palestinian Basic Law of 2003, the Jordanian Law No. 79 of 1966 The Cities, the Villages and Buildings Regulating Law, and the Buildings and Regulation Bylaw for Local Authorities No. 5 for 20.

Voluntary Land Donation

In cases where there is voluntary land donation, defined as when people or communities agree to voluntarily provide land in exchange for benefits or services related to the project, the below requirements must be met:

1. The infrastructure must not be site specific. For example, a school or clinic can have one or more locations if the land owner objects. However, voluntary land donation would not be allowed in the case of a location specific infrastructure such as a dam or reservoir since objectors can be forced or coerced into agreement.
2. The impacts must be minor, involving no more than 10% of the area of any holding and require no physical location.
3. The land required to meet technical project criteria must be identified by the affected community, not by line agencies or project authorities (nonetheless, technical authorities can help ensure that the land is appropriate for project purposes and the project will produce no health or environmental hazards).
4. The land in question must be free of squatters, encroachers or other claims or encumbrances.
5. Written verification is necessary (for example, a notarized letter or witnessed statements) of the voluntary nature of land donations must be obtained from *each* person donating land.

6. If any loss of income or physical displacement is envisaged, verification of voluntary acceptance of community devised migratory measures must be obtained from those expected to be adversely affected.
7. If community services are to be provided under the project, land title must be vested in the community or appropriate guarantees of public access to services must be given by the private title holder.
8. Grievance Redressal or a complaints' mechanism must be available.

3.4.8 Environmental and Social Mitigation and Auditing

The primary objective of environmental and social management plan is to define the necessary mitigation measures that would be considered / implemented at the various stages of project implementation (design, construction and post construction). The type and magnitude of the impacts vary from one sub-project to another depending on the scale, local hosting environment and tools adopted for physical implementation.

The environmental and social audit as part of the technical audit is to adopt a methodology of consultation and requesting feedback from potential beneficiaries through a well-designed and structured questionnaire. The questionnaire covered public and environmental health, water and sanitation, solid waste, noise and psychological comfort, land use, air pollution and public safety.

The results of the questionnaire are considered as indicators of the improvements in the different environmental and social subjects. Both positive and negative impacts on the environment and social life are presented in details as the findings of the environmental audit. Environmental and social auditing is recommended during the different phases of the project to ensure further assessment of the impacts and to control their effects.

A Technical Audit including the environmental and social audit of a sample of implemented sub-projects will be carried by the end of the phase by specialized consulting firms recruited by the MDLF considering the all project stages.

Annex6 presents matrices detailing representation of the environmental and social impacts typically associated with the type of projects of MDP. These environmental matrices show the expected impacts covered by the projects, sector wise, and list the mitigation measures proposed to be implemented during and after the construction of the projects.

In order to implement sufficient and adequate ESMP in terms of project monitoring, reporting and supervision, the following actions are recommended:

- Site-specific environmental and social screening and review process conducted at least two times a month for randomly selected projects. Environmental and social

review shall be conducted for specific projects that have been earmarked to be subjected to detailed site review. A standard appraisal and mitigation form or checklist is recommended to be used. The form or checklist should basically include:

- Current environmental problems such as water supply contamination, dust and air pollution at the site.
- Social conflicts among the beneficiaries of the projects to be addressed and solved
- Any potential environmental or/ and social impacts of the project.
- Mitigation measures.
- Prepare a monthly progress report addressing the environmental and social issues, status of mitigation measures taken and recommendations.
- Review the existing Palestinian environmental laws and regulations. For this purpose the two main articles 45 and 47 of the Environmental law of Palestine of 1999 and the Palestinian Environmental Assessment Policy are presented in (**Annex7**)

3.5 Legal Environment

The governing environmental law in the Palestinian territories is the Palestinian Environment Law which was published in October 1999 by MEnA and it covers the political and social context, the legal and institutional framework, the environmental driving forces, the environmental themes and strategy elements. Two main articles 45 concerning the Environmental Impact Assessment and 47 concerning Licensing are depicted in **Annex 7** of the Environmental law of Palestine of 1999.

Further the Palestinian Environmental Assessment Policy was issued in 2004 in order to support the sustainable economic and social development of the Palestinian people through assisting in meeting the life standards adequacy, conserving the natural environment, conserving biodiversity and natural resources, and avoid irreversible environmental damage and minimize the reversible damages from development activities, the summary of Palestinian Environmental Assessment Policy is presented in (**Annex 7**).

All mentioned laws, orders and regulations have enforcement power, the main base of the enforcement system is the Palestinian Public Health Law No 20 and the Municipality regulatory system. Enforcement actions are to be taken by the municipality directly in some cases and through the Soluh court, the police and sometimes the district governor for much complicated cases.

The form of the framework is similar to that of the World Bank and does not contradict with it, and it specifies the requirement for comprehensive EIA's for projects likely to have significant impacts and an Initial Environmental Evaluation IEE for projects where significant impacts are uncertain, or where compliance with environmental regulations must be insured.

For Pest Management, Environmental Law considers pesticides (Pest Control products) as a hazardous waste that shall be disposed safely. Where Article (14) Pesticides and Fertilizer states that “The Ministry, in coordination with the specialized agencies shall designate the environmental conditions for the import, distribution, manufacturing, use, and store of pesticides, substances, and agri-chemical fertilizers, which may pose hazards to the environment.”

Therefore MDLF at stage of receiving the project application are to ensure including material accredited by WHOPE, MENA, MOH and MOA (**Annex 6**).

3.6 Environmental and Social Capacity Building and Training Program

MDLF environment and social officers’ related training would be tailored within MDLF capacity building plan s

While training to Municipality Engineers on proper implementation of environmental and social requirements process, roles and responsibilities will be fulfilled under the Local Technical Consultant support during project stages.

Moreover; Municipalities will liaise with the Contractors to ensure identification of the ESMF within the pre-bid meeting.

The table below shows a provision of the proposed seminars/ workshop that seen to be held for the different levels during the project implementation stages.

Table7 : Proposed Workshops and Seminars

Target Group	Workshop/ Seminars	By Whom	Notes
Management Staff	<ul style="list-style-type: none"> ▪ A training course on planning and design of environmental and social protection schemes. ▪ A training course on implementation of environmental and social protection schemes. 	<ul style="list-style-type: none"> ▪ MDLF ▪ MDLF 	
Beneficiaries and Stakeholders	<ul style="list-style-type: none"> ▪ A workshop on implementation of environmental and social protection schemes. ▪ An orientation session on the preparation and use of the appraisal 	<ul style="list-style-type: none"> ▪ MDLF ▪ MDLF 	<ul style="list-style-type: none"> ▪ Part of the Orientation and Training workshops

Target Group	Workshop/ Seminars	By Whom	Notes
	<p>mitigation forms.</p> <ul style="list-style-type: none"> ▪ An orientation session on the monitoring of the implementation environmental and social guidelines and mitigation measures. ▪ A training on the environmental and social risk management 	<ul style="list-style-type: none"> ▪ MDLF 	
Contractors	<ul style="list-style-type: none"> ▪ A seminar considering: <ul style="list-style-type: none"> ▪ The use of the mitigation form and environmental and social guidelines. ▪ The implementation of mitigation measures. ▪ Safety measures for construction workers. ▪ Waste management and cleaning measures during construction. 	<ul style="list-style-type: none"> ▪ Municipalities 	<ul style="list-style-type: none"> ▪ Implementation Stage Preparation in project pre-bid meeting

3.7 ESMP Cost Implication and Schedule

Table 8 presents a tentative implementation schedule for the actions of ESMP. The actions are listed as per the major project activities. The cost implication of the ESMP and the fees are listed in the last column.

ESMP and Monitoring Cost Estimate: The cost associated with implementing the ESMP and monitoring of environmental and social safeguards is accommodated by the project and estimated at Euro 129,000.

The project will finance as part of the MDLF's management fee the remuneration of environmental and social officers as members of its core team. While, the cost of related designs, clean up and disposal of construction debris and waste will be included in the sub-project contract financed by the Grant. This is estimated to cost on average around 3-5% of the municipal grants.

The cost of supervision and monitoring the ESMP as well as the proposed training programs addressed to municipal staff and eligible contractors will be part of MDLF management fees to MDP.

The costs associated with implementing post construction measures will be financed through the annual municipal budgets for operations and maintenance of assets and infrastructure.

During the supervision missions, the donor's team will review at random a sample municipal budgets and confirm that such budget include specific line items for post project mitigation measures.

Table 8: ESMF Cost Estimate

Activity¹	Quantity	Unit Rate (Euro)	By Whom	Total (Euro)	NOTES
1) Environment and Social Officers at MDLF (Will be part of the MDLF management fee)	36 ²	2,500/month	MDLF	90,000	
2) Capacity Building for the MDLF staff (Environment and Social Officers)	3	2,000	MDLF	6,000	Accordingly to proposed workshop and seminars in all stages of MDP
3) Capacity Building and Training for beneficiaries (Municipalities)		15,000 Euro on Cycle 1 5,000 Euro on Cycle 2	MDLF LTC	20,000	Accordingly to proposed workshop and seminars in all stages of MDP
4) Random Environmental and Social Audits ³	1	3,000	LTC	3,000	Part of technical audit conducted at the end of MDP II
5) Operation Expense for following Environmental and social measures for all cycle stages		5,000	MDLF	5,000	
6) Miscellaneous		5,000	MDLF	5,000	
Total				129,000	

¹**NOTE:** The above budget is exclusively devoted to environmental and social monitoring. All Items will be part of the MDLF's budget; part of Item 2 might be part of the TORs for the Local Technical Consulting firms (**LTC**) who will be contracted by the MDLF for the implementation stage of the project. The cost of design and implementation of mitigation measures will be financed from the grants issued to the municipalities and not from the above budget. It is estimated that such costs would be on average around 3-5% of the municipal grants.

² Considering that MDP Phase II will have two cycles (18 month each)

³ Environmental and Social Audit cost is part of Technical Audit conducted at end of MDP Phase covering 2 cycles.

3.8 Environmental and Social Issues and Baseline Information

The baseline information for Gaza Strip and West Bank considering the environmental and social issues are described in detailed in **Annex 8** of this report. These issues are:

- Climate
- Available water resources and water quality
- Air quality
- Transportation
- Noise
- Vegetation cover
- Natural habits and sanctuaries
- Marine life resources
- Agricultural resources
- Resettlements
- Employment and income
- Culture and heritage
- Recreation and tourism
- Safety and occupational health
- Public health

4 Public Consultation

MDLF Phase II public consultation were conducted by MDLF with the MDP team, who has previous experience with consultations as part of MDP I.

The consultations were part of the Orientation workshops and aimed to present the project and the ESIA/ ESMF to the four clusters in West Bank and Gaza Strip getting their feedback and inputs on the project. Participants comprised municipal members, local community representatives (CBOs, NGOs), including those from marginalized groups (ie. women, youth, etc.). The details of the timing and participants of the workshops are explained in the below table.

Activity	Venue/ Place	Participants Type	Date
Consultation Workshops, including orientation, (Project and ESIA/ESMF Introduction, discussion and feedback)	Gaza Workshop	<ul style="list-style-type: none"> • Municipal Members: 26 • Local Community (NGOs, CBOs, etc):0 • LTCs: 3 • MENA: 1 • MDLF: 1 	Wednesday 26 Dec 2013
	West Bank (Middle area) Ramallah	<ul style="list-style-type: none"> • Municipal Members: 25 • Local Community (NGOs, CBOs, etc): 4 • LTCs: 0 • MDLF: 9 	Thursday 27 Dec 2012
	West Bank (North area) Nablus	<ul style="list-style-type: none"> • Municipal Members: 26 • Local Community (NGOs, CBOs, etc): 12 • LTCs: 0 • MDLF: 5 	Sunday 30 Dec 2012
	West Bank (South area) Hebron	<ul style="list-style-type: none"> • Municipal Members:34 • Local Community (NGOs, CBOs, etc): 10 • LTCs: 0 • MDLF: 4 	Wednesday 3 Jan 2013

The four workshops were attended by 159 participants including over 30 for each workshop, including different number of municipalities and a fair number of social and civil society organizations. Overall, most of the participants acknowledged and supported the document and MDLF effort regarding the environmental and social matters. While few concerns have been raised, no major implications on the document were recognized:

- Municipalities raised inquiry about the mechanism to detect and measure the environmental and social contractors' incompliance and how to impose penalties. The MDLF indicated that incompliance should be followed through; (i) The municipality

engineer, (ii) the LTC and MDLF engineers, (iii) the MDLF environmental and social officers in addition to (iv) the citizens' complaints. further, imposing penalties should be upon municipality continuous reporting regarding all environmental and social issues according to ESMF and bidding documents.

- An argument regarding the environmental penalties procedures was raised on the possibility of the MDLF to set up a condition that allows the municipality to conduct the environmental mitigation measures if the contractor failed/refused to comply to the project specifications. MDLF stated that this issue will be thoroughly discussed with the procurement department in order to efficiently set the penalty section within the bidding document, considering no changes to ESMF document will be required.
- How the municipalities will deal with the exaggerated or unrealistic community complaints; the MDLF clarified that the municipality have to receive all complaints and verify its implications on community, in addition to periodically report it to MDLF.
- The municipalities inquired about the MDLF prerequisite of 30% of women and youth participation in public consultation within SDIP's preparation, where their main concern is how to meet this target in their conservative communities. The MDLF responded that the Municipality should invite as many as they can of female representatives and follow up the invitations to ensure their presence, and if the percentage wasn't complied; the municipality have to justify it.
- Municipalities in Gaza argued that pest control materials are to be acceptable to Ministry of Health (MOH), Ministry of Agriculture (MOA) in addition to having sealed, licensed lab recommendation not to only supply material that have been WHO premised. MDLF responded that Municipalities are to identify which pest control material to be requested in the next phase where these materials are to be acceptable by WHO regulation and approved by MOH and MOA as any pest control material entering the country has to be tested and stamped by one of those ministries based on type of pest control. Note that this comment was reflected in the ESMF document.

However, the Minutes of meeting of the public consultation depicted detailed inquiries and concerns about environmental and social issues in the attached **Annex 9**, considering the ESIA/ESMF will be disclosed in Arabic and English prior to appraisal.

5 Environmental and Social Liabilities of MDLF Contractors

The ESMFs must be included in the tender documentation, so that potential bidders are aware of environmental and social performance standards expected from them and are able to reflect that in their bids.

Provisional environmental management guideline for construction of roads; to be implemented also as per stated in **Annex 5**.

Moreover, the bidding documents will have section for ESMF compliance where breakdown for the cost of each mitigation measure noncompliance will be attached.

The ESMF become essential parts of a works contract upon its conclusion and their implementation is mandatory for a contractor. The Municipality, as an owner of construction works, will be responsible for enforcing compliance of contractor with the terms of the contract, including adherence to the ESMF.

For minor infringements and social complaints, an incident which causes temporary but reversible damage, the contractor will be given environmental and social note/ stop and alert to remedy the problem and to restore the environment. If reviewing the action by the Municipality Engineer showed that restoration is done satisfactorily no further actions will be taken.

If it is not done during this given time, the Municipality Engineer in cooperation with Local Technical Consultant will stop the work and give the contractor an environmental and social note and financial penalty according to the non-complied mitigation measure depicted in the bidding document and the Following Table. This penalty will be deducted from Contractor final invoice. Noting that if reviewing the action by the Municipality Engineer showed that restoration is done satisfactorily no further actions will be taken, otherwise and if Contractor hasn't remedied the situation within 1 day any additional days of stopping work will be considered no excused delay.

If repeating the noncompliance to ESMF penalties approached (3-5) % of the contract value, the Municipality Engineer will raise the formal recorded environmental and social notes and the deduction history to MDLF in order to tack a legal action. Considering that bidding document will ensure good explanation of deduction method.

Environmental and Social Note No ()	
Municipality	Date
Project Name	
Site Location	
Contractor	
The Environmental Note	
Municipality Supervisor /Engineer	
Local Technical Consultant	
Contractor Representative on time of note	
Submitted to Contractor Representative	
Submitted to MDLF on	
Hour	
Date	

ESMF Compliance Penalty ⁴		
no	Environmental and Social Note	Penalty
1	1	Stop/Alert
2	2	Stop /Deduct 0.05% for each mitigation measure ⁵ according to the project. and minimum 20 Euro
3	3	Stop /Deduct 0.05% for each mitigation measure according to the project. and minimum 20 Euro
4	4	Stop /Deduct 0.1% for each mitigation measure according to the project. and minimum 40 Euro
5	4+1	Each 3 notes + deduction: For example: Stop /Deduct 0.1%+0.5(0.1%) for each mitigation measure according to the project. and minimum 60Euro
		If Penalties Rate approach 3% of Contract cost its recommended to stop work, and send official request to MDLF of the proposed action according to bidding documents and procurement manual.

⁴For Social issues only item number 1 is applied.

⁵ Detailed mitigation measures noncompliance cost is to be depicted in the Bidding Documents based on the project sector and upon screening and review.

6 Environmental and Social Monitoring and Complaints Mechanism

6.1 Environmental and Social Monitoring

Environmental and social monitoring will be an integral part of MDLF's supervisory work in the course of the project implementation. The MDLF (Environmental and Social Officers and or LTCs) and Municipality Supervision Engineers will be responsible to ensure that contractors works are familiar with ESMF and instruct workers/personnel on the compliance with the ESMF and the project sector ESMP. The concerned municipality MDLF will conduct regular on-site monitoring of civil works to verify contractors' adherence to the requirements set out in ESMPs following Environmental and Social Liabilities of MDLF Contractors. **Figure 1** depicts the MDP Project Implementation stages, monitoring and reporting.

Checklist attached in **Annex 3** is utilized to facilitate comparing environmental and social mitigation measures recorded in the appraisal stage and what is implemented on ground.

Environmental and social sections of progress reports on the project implementation will include detailed reporting of the status of environmental and social performance under the MDP cycle, including overview of deviations/violations of ESMPs encountered over the report period, instructions given to the contractors for addressing incompliance and identified issues, and follow-up actions on the revealed outstanding matters.

6.2 Complaints Mechanism

Prior to the implementation of the project, the municipality will announce for its willingness to accept the local community complaints through different ways, such as:

- Distribution of leaflets to the public places
- Notice Boards
- The Municipality Website
- Telecommunication tools (SMS and phone line)
- Public Meetings

The project will use the existing municipal complaint system to receive complaints which includes a drop box. The complaints are to be discussed and recorded by the municipal council committee.

The municipality will record complaints including detailed information about the social and/ or environmental issue (key issues, complaint received date, addressed complaint, how been resolved, etc.). The complaint should be archived in the project profile and be solved or mitigated within two weeks maximum. The municipality should report to the MDLF of all the complaints through continuous recording in the weekly reports and/ or through site visits, so that the MDLF and/ or the LTC will intervene to solve the issue if the municipality was not able to solve or mitigate it.

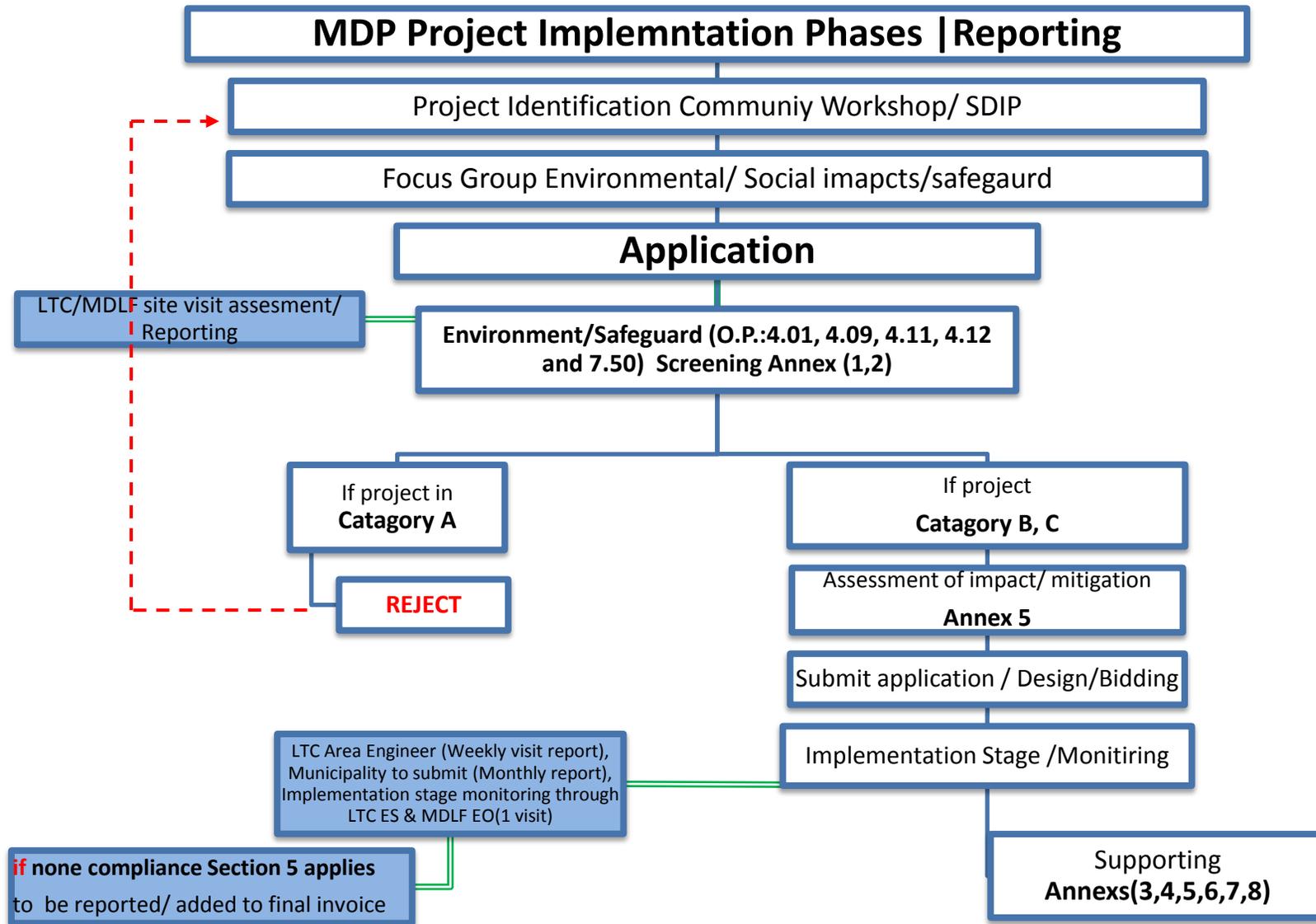


Figure 1 MDP Project Implementation Chart

Annexes

Annex 1: Environmental Screening and Classification of Subprojects

Annex 2: Social and Cultural Resource Screening of Subprojects

Annex3: Environmental and Social Management Checklist for Small Construction and Rehabilitation Activities

Annex4: Environmental and Social Management and Monitoring Plan Matrices

Annex5: Environmental Management Guidelines for Contractors (provisional to Construction in Roads)

Annex6: Provisional Instructions for Pest Control Management

Annex7: Environmental Legislation and Regulations

Annex8: Environmental and Social Issues and Baseline Information

Annex 9: Summary of Public Consultations

Annex 1

Environmental Screening and Classification of Subprojects

(A) IMPACT IDENTIFICATION

Section A – Basic Information
Project Title:
Project Sector:
Duration:
MDLF officer:
Environmental Specialist=

Has the subproject a tangible impact on the environment?	
What are the significant beneficial and adverse environmental effects of the subproject?	
Does the subproject have any significant potential impact on the local or affected communities?	
What impact has the subproject on the human health?	

(B) MITIGATION MEASURES

What alternatives to the subproject design have been considered and what mitigation measures are proposed?	
What lessons from the previous similar subprojects have been incorporated into the project design?	
Have concerned communities been involved and have their interests and knowledge been adequately taken into consideration in subproject preparation?	

(C) CATEGORIZATION AND CONCLUSION

Conclusion of the environmental screening:

1. Subproject is declined
2. Subproject is accepted

If accepted, and based on risk assessment, subproject preparation requires:

1. Completion of the Environmental Management Checklist
For subprojects of sector
2. Environmental Review, including following the approved
Environmental Management Plan for sector.

Annex 2

Social and Cultural Resource Screening of Subprojects

Social safeguards screening information		Yes	No
1	Will the project reduce other people's access to their economic resources, such as land, pasture, water, public services or other resources that they depend on?		
2	Will the project result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		
3	Will the project result in the temporary or permanent loss of crops, fruit trees and Household infra-structure (such as granaries, outside toilets and kitchens, etc)?		
If the answer to any above question is "Yes", then OP/BP 4.12 Involuntary Resettlement is applicable and the subproject is ineligible.			
If the Answer for all the above is "No", please fill in the followings;			
Required Documentation		Yes	No
1	Is the information related to the affiliation and ownership status of the subproject site available and verifiable?		
2	If there is voluntary land donation, is documentation provided and have the WB procedures been followed as outlined on page 22 of the ESIA/ESMF?		
Cultural resources safeguard screening information		Yes	No
1	Will the project require excavation near any historical, archaeological or cultural heritage site?		
If answer to question 5 is "Yes", then OP/BP 4.11 Physical Cultural Resources is applicable and possible chance finds must be handled in accordance with OP/BP and relevant procedures provided in the Environmental and Social Management Framework .			

Annex3

Environmental and Social Management Checklist for Small Construction and Rehabilitation Activities

Municipality:					
Project Name:.....					
Date:.....					
#	Impact to check	Yes	No	Remarks	Safeguards / Mitigation measure/s carried on
1	Noise/alarm generation				
2	Dust spreading out				
3	Odor emission				
4	Traffic problems (hindering, detours, closure ...etc.)				
5	Solid Waste Services problems				
6	Sewerage Services problems				
7	Water Services problems				
8	Green cover negatively affected				
9	Pedestrians' safety endangered				
10	Electricity services problems				
11	Landscape / aesthetic element/s deteriorated				
12	Natural Resources negatively affected				
13	Biodiversity & Wildlife threatened				
14	Recreational sites negatively affected				
15	Heritage and archaeological sites negatively affected				
16	Agricultural activities negatively affected				
17	Industrial utilities negatively affected				
18	Workers safety and health considered				
19	Workers commitment to OHS (vests,				

Municipality:					
Project Name:.....					
Date:.....					
	gloves, HD wearing apparel etc)				
20	Working machines suitability				
21	Additional Impact(Add it)				
22. Comments:					
.....					
.....					
23. Recommendations:					
.....					
.....					

Environmental Specialist Signature

Date

Annex4

Environmental and Social Management and Monitoring Plan Matrices

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
1	Road Sub-Projects	Construction	Dust generated by construction activities.	Monitor the excavations. Applying (spraying) water where possible. Avoid work during windy days.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
				Proper activity scheduling and working hours and days.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Increasing the concentration of pollutants and noise.	Proper scheduling and working hours and of any risky activities.	Consultant and Contractor	Municipality	MDLF
			Increase the risk of accidents during construction.	Traffic regulation signs and Traffic calming measures.	Contractor and Consultant	Municipality and Supervision Engineer	MDLF
				Use signs to control speed limit.	Contractor	Municipality and Supervision Engineer	MDLF
				Provision of adequate notification procedures for any road closures	Contractor and Consultant	Municipality and Supervision Engineer	MDLF
			Loss of aesthetic features due to illegal dumps.	Monitor the using of safety measures. Cleaning and removal of wastes or deposits to landfills or designated areas.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
				Dump at proper and approved sites.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Potential accidental break of other water lines and other utilities.	Survey of existing facilities during the design. The contractor consults relevant utilities, agencies or companies.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Construction waste generated.	Proper plans for disposing off construction waste including waste generated from used machinery (used oil) to be included in the contract documents.	Consultant	Municipality	MDLF
			Land Use (Property Rights)	Avoid any use of private land if there are no verifiable documents for land donation	Consultant and Contractor	Municipality and Supervision Engineer	MDLF

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
1	Road Sub-Projects	Post-construction	Due to obstruction, traffic concentration will be transferred to other streets causing traffic congestions.	Monitor the use of traffic signs, safety measures and tools.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Noise generation during construction activities.	<ul style="list-style-type: none"> ▪ Construction management of working hours ▪ Proper maintained and serviced vehicles. 	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Potential uncover and damage of archaeological remains.	Additional survey for potential sites Monitoring of site excavation.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF/ MOAT
			Side soil and erosion.	Check the slope and compaction of the shoulder, proper curbstone to prevent erosion, construct retaining wall in certain places.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Uprooting of trees.	A void cutting trees if it does not make a real obstacle. Some trees may be trimmed. Planting new trees.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Long-term traffic increase.	Traffic signs to reduce the traffic (one-way sign) and traffic calming signs.	Consultant and Contractor	Municipality and Supervision Engineer	- Municipality
			Increase the risk of accidents.	Traffic regulation signs and traffic calming measures.	Consultant	Municipality	- Municipality
			Cumulative increase in dust and gas emissions because of more traffic movement.	Control the traffic speed. Maintain vegetation cover. Regular checks of vehicle.	Municipality		Municipality -
			Maintenance of new assets (roads and associated wastewater and storm drainage networks)	Prepare an annual maintenance plan as well as setting an allocation for the necessary financial resources in the annual budget.	Municipality	MOLG	- Municipality
			Loss of aesthetic due to the increase in the built up area around the new road	Proper design of landscaping for the area and around the road which may include some plantation activities.	Municipality	Municipality	Municipality

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
2	Construction of Public Facilities Schools + health facilities	Construction	Dust generated by construction activities.	Monitor the excavations. Applying (spraying) water where possible. Avoid work during windy days.	Consultant Contractor	Municipality and Supervision Engineer	MDLF
			Increase the risk of accidents.	Proper scheduling of any risky activities.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
				Traffic signs to ensure proper routing and distribution of traffic.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Construction waste generated and left in site.	Clear site management plans and dumping at proper and approved sites	Contractor	Municipality and Supervision Engineer	MDLF
			Improper disposal of generated waste.	Ensure that the facilities are connected to either wastewater network and if not available to a septic tank that is regularly maintained.	Contractor	Municipality and Supervision Engineer	MDLF
			Noise generation during construction activities	<ul style="list-style-type: none"> ▪ Identification of such activities and appraisal methods to reduce noise. ▪ Construction management of working hours. 	Contractor	Municipality and Supervision Engineer	MDLF
			Localized disturbance of surrounding areas	<ul style="list-style-type: none"> ▪ Proper construction management and reshape the site conditions to its origin. ▪ Check drivers' credentials. 	Contractor	Municipality and Supervision Engineer	MDLF
			Localized disturbance of traffic and accidents risks	Warning signs, protection of excavation sites, providing detours and coordination with traffic department.	Contractor	Municipality and Supervision Engineer	MDLF
			Loss of vegetation	Design of landscaping around the facility may include planting of some vegetation Gaza and West Bank.	Contractor	Municipality and Supervision Engineer	MDLF
			Potential uncover and damage of archaeological remains	Additional survey for potential sites Monitoring of site excavation.	Contractor	Municipality and Supervision Engineer	MDLF
			Traffic increasing around the service buildings	Project management and beneficiaries and stakeholders	Contractor	Municipality and Supervision Engineer	MDLF
			Land Use (Property Rights)	Avoid any use of private land if there are no verifiable documents for land donation	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Loss of aesthetic due to the increase in built-up area	Design of landscaping around the facility may include planting of some vegetation and trees	Contractor	Municipality and Supervision Engineer	MDLF

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
2	Construction of Public Facilities Schools + health facilities	Post-construction	Loss of aesthetic due to the increase in built-up areas.	Design of landscaping around the facility.	Consultant	Municipality	- - Municipality
			Noise around the facility by traffic movement.	Traffic regulation signs and traffic calming measures.	Consultant	Municipality	- - Municipality
			Improper disposal and pile up of construction wastes	Cleaning and removal of wastes to landfills or designated areas.	Contractor	Municipality and Supervision Engineer	- - Municipality
			Medical Waste generated from operating the health facilities	Separation and disposal of the Medical Waste per the local regulations and international standards.	Operator of facility	Municipality and Ministry of Health	Ministry of Health+ Municipality
			Inadequate functioning of the wastewater collection system.	Ensure systematic maintenance of the network/septic tanks.	Municipal Maintenance Department	Municipality	- Municipality
			Improper functioning of the solid waste collection activities	<ul style="list-style-type: none"> ▪ ensure proper collection of solid waste from schools. ▪ provide enough waste disposal cans. ▪ enhance solid waste recycling among students. 	Municipality	Municipality	Municipality
3	Maintenance of water, wastewater, storm drainage networks	Construction	Increasing the concentration of pollutants, noise and odor.	Proper scheduling and monitor of any risky activities.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Dust generated by construction activities.				MDLF
			Disturb the features.				MDLF
			Increase the risk of disease	Monitor the using of safety measures and tools.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Loss of aesthetic features due to illegal dumps.	Proper plans for disposing off broken pipes, manholes and other waste to be included in the contract documents.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Construction waste generated.	Clear site management plans and dumping at proper and approved sites	Contractor	Municipality and Supervision Engineer	MDLF
			Potential risk of accidents due to excavation for manholes and trenches.	Warning signs, safety instruction, excavation and backfilling scheduling.			
			Land Use (Property Rights)	Avoid any use of private land if there are no verifiable documents for land donation	Consultant and Contractor	Municipality and Supervision Engineer	MDLF

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
3	Maintenance of water, wastewater, storm drainage networks	Post-construction	Potential accidental break of other utility lines.	Survey of existing facilities during the design, monitor the excavation, an immediate repair if happened.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Risk of water contamination through distribution system in case of breaks.	Survey of existing facilities during the design, monitor the excavation and immediate repair if happened, check disposal plans.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Localized disturbance of surrounding areas	Proper construction management and reshape the site conditions to its origin.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Dust and vehicular emissions during construction.	Well maintained and serviced vehicles Dust suppressants, watering the site, and proper transporting and stockpile of construction material.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Disturbance due to construction debris and disposal.	Proper and safe handling, transporting, and dumping of waste material including fencing and public.	Consultant and Contractor	Municipality and Supervision Engineer	MDLF
			Regular maintenance of networks	Monitor the clogging or breakage in the network and respond immediately to maintain it. Ensure that disposal of wastewater is done properly.	Municipality	Municipality	Municipality
			Possible increase in water consumption.	Implement proper tariff structure, public education awareness programs for water conservation.	Municipality	Municipality	Municipality/ PWA
			Increase sewage inflow in the main sewer line and to treatment plant or collection area.	Upgrade the associated system mains if found under capacity (design stage).	Municipality	Municipality	Municipality
			Potential increase in water pollution	Water Quality Monitoring Program	Municipality	Municipality	Municipality
4	Road Lighting and/or Furnishing Sub-projects	Construction	Risks during maintenance activities (electric shocks, fallen objects, cutting wires).	Maintenance activities should be carried out in off-peak periods.	Consultant and Contractor	Municipality and Supervision Engineer	Municipality
			Electricity cut off due to maintenance activities.	Follow safety measures and conditions.	Consultant and Contractor	Municipality and Supervision Engineer	Municipality

No	Sector	Phase	Impact	Mitigation Measure	Operation / Responsibility	Supervision	Monitoring
4	Road Lighting and/or Furnishing Sub-projects	Post-construction	Electricity poles hinder the movement and traffic.	Relocate electricity poles.	Consultant and Contractor	Municipality and Supervision Engineer	Municipality
				The cables, which are very close to houses, should be replaced and insulated.	Consultant and Contractor	Municipality and Supervision Engineer	Municipality
				Routine checks to installed poles.	Municipality	Municipality	Municipality
5	Use of Pesticides	Project Implementation	Negative impacts on human health especially those with Asthma or due to over dose application. Refer to Annex 6	Ensure that only WHO approved pesticides is used.	Municipality	MDLF / Supervision Engineer	MDLF
				Ensure that residents are alerted in advance on the location and timing of spaying the pesticides.	Municipality	Supervision Engineer	MDLF
				Application should be carried out during low activity hours.	Municipality	Supervision Engineer	MDLF
				Ensure that pesticides are packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank. ¹	Municipality	Supervision Engineer	MDLF
6	Uncovered Historical and Cultural Heritage Assets	Accidental excavation of cultural heritage and archaeological assets.		Stop construction activities. Immediately notify Ministry of Tourism and Antiquities (MOTA).	Contractor	MOTA & LTC	MDLF

Annex 5

Environmental Management Guidelines for Contractors (provisional to Construction in Roads)

Purpose

The purpose of these environmental management guidelines for contractors is to define minimum standards of construction practice acceptable to the MDLF.

Roads

In order to carry out the rehabilitation works, it may be necessary to close or divert certain specified roads, either permanently or temporarily during the construction period. The contractor should arrange diversions for providing alternative route for transport and/or pedestrians.

After breaking up, closing or otherwise interfering with any street or footpath to which the public has access, the Contractor shall make such arrangements as may be reasonably necessary so as to cause as little interference with the traffic in that street or footpath during construction of the rehabilitation works as shall be reasonably practicable.

Wherever the rehabilitation works interfere with existing public or private roads or other ways over which there is a public or private right of way for any traffic, the Contractor shall construct diversion ways wherever possible.

Movement of Trucks and Construction Machinery

The Contractor moving solid or liquid construction materials and waste shall take strict measures to minimize littering of roads by ensuring that vehicles are loaded in such a manner as to prevent falling off or spilling of construction materials and by sheeting the sides and tops of all vehicles carrying mud, sand, other materials and debris.

Traffic Safety Measures

The Contractor shall provide, erect and maintain such traffic signs, road markings, barriers and traffic control signals and such other measures as may be necessary for ensuring traffic safety around the rehabilitation site. The Contractor shall not commence any work that affects the public motor roads and highways until all traffic safety measures necessitated by the work are fully operational.

Access across the Construction Site and to Frontages

In carrying out the rehabilitation works, the Contractor shall take all reasonable precautions to prevent or reduce any disturbance or inconvenience to the owners, tenants or occupiers of the adjacent properties, and to the public generally. The Contractor shall maintain any existing right of way across the whole or part of the rehabilitation site and public and private access to adjoining frontages in a safe condition and to a standard not less than that pertaining at the commencement of the contract. If required, the Contractor shall provide acceptable alternative means of passage or access to the satisfaction of the persons affected.

Protection of the Existing Installations

The Contractor shall properly safeguard all buildings, structures, works, services or installations from harm, disturbance or deterioration during the concession period. The Contractor shall take all necessary measures

required for the support and protection of all buildings, structures, pipes, cables, sewers and other apparatus during the concession period, and to repair any damage occurs in coordination with Municipality and concerned authorities.

Noise and Dust Control

The Contractor shall take all practicable measures to minimize nuisance from dust and noise from the rehabilitation sites. This includes:

- Respecting normal working hours in or close to residential areas;
- Maintaining equipment in a good working order to minimize extraneous noise from mechanical vibration, creaking and squeaking, as well as emissions or fumes from the machinery;
- Shutting down equipment when it is not directly in use.

Regarding Dust control, contractor is asked to provide a water tanker, and apply water spraying when required to minimize the impact of dust.

Waste Disposal

The Contractor must agree with the municipality about arrangements for construction waste disposal. The municipality shall designate a dumping site or landfill for the disposal of solid waste. .

Protection of Trees And Other Vegetation

The Contractor shall avoid loss of trees and damage to other vegetation wherever possible. Adverse effects on green cover within or in the vicinity of the rehabilitation site shall be minimized.

Clearance of Rehabilitation Site On Completion

The Contractor shall clear up all working areas both within and outside the rehabilitation site and accesses as work proceeds and when no longer required for the carrying out of the Rehabilitation works. All surplus soil and materials, sheds, offices and temporary fencing shall be removed, post holes filled and the surface of the ground restored as near as practicable to its original condition.

Annex6

Provisional Instructions for Pest Control Management

Introduction

As chemical control will continue to play a vital role in vector-borne disease control, particularly when rapid, effective control is essential, such as during disease epidemics, or seasonal vectors invasion.

Many municipalities in the West Bank and Gaza are responsible for providing the necessary services for protecting and controlling the public health from pests and other kinds of reptiles. A number of these municipalities have indicated when asked that the used pesticides must be certified by the Palestinian Ministry of Health (MOH). MOH conducts the needed inspection arrangements and licensing on regularly basis on materials purchased by the municipalities or purchased directly by the MOH and distributed to municipalities for use under special arrangements and consideration of specific mitigation measures.

The Municipality is to consider the following environmental and health instructions for procurement of goods, handling and storing of pest control material for those sub-projects aiming at purchasing pesticides. However, the MDLF mitigation measures are based on the international practices accepted by the World Bank and Palestinian environmental policies and standard.

Instruction for Purchasing of Pest Control

The procurement of any pesticide in a Bank-financed project is contingent on an assessment of the type, nature and degree of associated risks, taking into account the proposed use and intended users are accommodated to regulations, with respect to the classification of pesticides and their specific formulations, the Bank refers to the World Health Organization's *Pesticides and their Application for the Control of Vectors and Pests of Public Health Importance, sixth edition*(WHO, 2006) and Ministry of Health Pest Control List for the year 2012 where all pesticides must carry a valid license/certificate issued by the relevant authorities(MOH, MOA) stating that the pesticide is licensed for use for public health purposes considering that its shall be well sealed, packed, and stamped.

The following table list the allowed material to procure mosquito larvae controls that to be adapted under MDP II; the WHO application procedure considers liquid formulations for indoor usage, granular formulation might be implemented; precautions recommended not to exceed the dosage.

Table 1: WHOPEs-Recommended Compounds and Formulations for Control of Mosquito Larvae

Insecticide compounds and formulation(s) ¹	Class group ²	Dosage (active ingredient)	
		General (g/ha)	Container-breedling mg/L
<i>Bacillus thuringiensis israelensis</i> , strain AM65-52, WG (3000 ITU/mg)	BL	125-750 ³	1-5 ³
<i>Bacillus thuringiensis israelensis</i> , strain AM65-52, GR (200 ITU/mg)	BL	5,000-20,000 ³	-
Chlorpyrifos EC	OP	11-25	-
Diffubenzuron DT, GR, WP	BU	25-100	0.02-0.25
Novaluron EC	BU	10-100	0.01-0.05
Pyriproxyfen GR	JH	10 - 50	0.01
Fenitron EC	OP	22-112	-
Pirimiphos-methyl EC	OP	50-500	1
Temephos EC, GR	OP	56-112	1
Spinosad DT, EC, GR, SC	SP	20-500	0.1-0.5

¹ DT = tablet for direct application; GR = granule; EC = emulsifiable concentration; WG = water-dispersible granule; WP = wettable powder.

² BL = Bacterial Larvicide; BU = Benzoylureas; JH = Juvenile Hormone Mimics; OP = Organophosphates; SP = Spinosyns.

³ Formulated product.

For baits; Table 2 list the allowed insecticides used in toxic baits for fly control according to WHO, 2006 regulation, considering target area is where adult flies congregate to feed, on the other hand the WHO application procedure where dry and liquid implemented. Most important precaution not to place the baits close neither to children nor to domestic animals.

Table 2: Insecticides used in toxic baits for fly control (WHO, 2006)

Insecticide	Chemical type	WHO hazard classification of a ^{ia}
Spinosad	Biopesticide	U
Propoxur	Carbamate	II
Imidacloprid	Neonicotinoid	II
Thiamethoxam	Neonicotinoid	NA
Azamethiphos	Organophosphate	III
Diazinon	Organophosphate	II
Dimethoate	Organophosphate	II
Naled	Organophosphate	II
Phoxim	Organophosphate	II
Trichlorfon	Organophosphate	II

ai, active ingredient

a Class II, moderately hazardous; class III, slightly hazardous; NA, not available

Further; for Municipalities reference the following table depicts the Ministry of Health approved list of pesticides for the year 2012 (updated annually), considering the active ingredient, the formulation and the use, where Municipalities are to ensure pesticides must carry a valid license/certificate issued by the relevant

authorities (MOH, MOA) stating that the pesticide is licensed for use for public health purposes considering that its shall be well sealed, packed, and stamped.

Table 3: Insecticides approved by Ministry of Health 2012 (MOH, 2012)

Active Ingredient	Formulation	Use
Cypermethrin 20 %	Emulsifiable concentrate (EC)	Control of flies and mosquitoes
Permethrin 20 % (Cis: Trans 25:75)	Emulsifiable concentrate (EC)	- Control of flies and mosquitoes. - It should be suitable to dilute in water for spraying and suitable for fogging application.
Cyfluthrin 50 gr / L	Emulsifiable concentrate	Control of cockroaches, bedbugs and flying insects
Deltamethrin 15-16 gr/L	Emulsifiable concentrate (EC) <i>or</i> Emulsion concentrate (EW)	Control of cockroaches, bedbugs and flying insects
Brodifacoum 0.005	- Ready to use bait - Blocks - Weight: 20-30 gr.	Control of rats and mice
Bromdiolone0.005	- Ready to use bait - Blocks - Weight: 20-30 gr.	Control of rats and mice

In addition the following criteria apply to the selection and use of pesticides in Bank-financed projects and sub-projects:

- i. They must be in WHO and MOH list of recommended compounds.
- ii. They must have negligible adverse human health effects.
- iii. They must be shown to be effective against the target species.
- iv. They must have minimal effect on non-target species and the natural environment. The methods, timing, and frequency of pesticide application are aimed to minimize damage to natural enemies. Pesticides used in public health programs must be demonstrated to be safe for inhabitants and domestic animals in the treated areas, as well as for personnel applying them.
- v. Their use must take into account the need to prevent the development of resistance in pests.

The Bank requires that any pesticide it finances be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards acceptable to the Bank.

In reference to the Local Council Law no.1 for year 1997/Article (15) municipalities in West Bank and Gaza Strip are responsible for protecting and controlling the public health within their villages and cities and conducting the needed arrangements to clean and kill insects, pests, and other reptiles. Those municipalities

responsible for purchasing needed pesticides should follow special arrangements specified by the Palestinian Ministry of Health, these instructions are as following:

1. The contractor and pesticide supplier should include in the bidding documents a certification indicating that the offered material is licensed by the MOA / MOH as material accepted to be used with no effect on public health;
2. Certifications should be original and written in English or Arabic;
3. The material should include a data sheet clarifying the production date and expiry date clearly, which should not be less than two years from the date of purchasing the material by the municipality;
4. The materials should be inspected by a licensed laboratory (usually it is inspected by the laboratory at the MOH) and the cost of inspection should be covered by the provider;
5. Supply only pesticides of adequate quality, packaged and labeled as appropriate.
6. Pay special attention to formulations, presentation, packaging and labeling in order to reduce hazard to users, to the maximum extent possible consistent with the effective functioning of the pesticide in the particular circumstances in which it is to be used; and
7. Provide, with each package of pesticide, information and instructions in a form and language adequate to ensure safe and effective use.

Measures for Using and Storing of Pesticides

Municipalities are used to use the pesticide during the summer semester starting in May till September on a daily basis and at specific time shortly before the sun set. Large municipalities with different residential areas are usually designated into sections for easy access and within the capacity of the municipality and availability of pest-control spraying machines.

The following is a set of mitigation measures that shall be considered before and during spraying process of the pesticides:

1. Specify and inform citizens in advance about the spraying time and nominate in advance the number of workers responsible for the spraying.
2. Supervision of the spraying process should continue during the whole designated spraying period which usually during summer semester.
3. Storage of pesticide should be in a well identified storage space with limited access to those other than municipal staff and inspection teams.
4. Disposal of used canisters or containers should follow the proper international procedures and applicable regulations.

In addition the municipality should comply with the instructions provided in the pesticide package and those instructions promoted by MOH.

Annex 7

Environmental Legislation and Regulations

Palestinian Environmental Law

The Palestinian environmental legal and administrative framework has taken major strides towards protecting environmental resources and institutionalizing their sustainable management. The Environment Law of Palestine is comprehensive, covering the main issues relevant to environmental protection and law enforcement. Among the objectives of the law are:

- Protecting the environment from all sorts and types of pollution
- Protecting public health and social welfare
- Incorporating environmental resources protection in all social and economic development plans and promote sustainable development to protect the rights of future generations;
- Conserving ecologically sensitive areas, protecting biodiversity, and rehabilitating environmentally damaged areas;
- Setting inter-ministerial cooperation regulations and standards various environmental protection areas and jurisdictions;
- Promoting environmental information collection and publication, public awareness, education and training.

The law addresses various environmental issues including:

- Management and protection of various resources. Issues covered are related to land environment, air environment, water resources and aquatic environment, and natural, archeological, and historical heritage protection.
- Environmental Impact Assessment (EIA) and auditing, permitting of development projects, monitoring of environmental resources and their parameters.
- Penalties to be applied in case of violation of any article presented under the law.
- Other issues addressed by the legislation include emergency preparedness, public participation, research training and public education.

The Environment Law of Palestine of 1999 has stated in Chapter 1 (of section III), article 45, "The Ministry, in coordination with the competent agencies, shall set standards to determine which projects and fields shall be subject to the environmental impact assessment studies. It shall also prepare lists of these projects and set the rules and procedures of the environmental impact assessment".

Article 47 of the Environmental Law states that "The Ministry, in coordination with the competent agencies, shall determine the activities and projects that have to obtain an environmental approval before being licensed. This includes the projects that are allowed to be established in the restricted areas".

And for Pest Control, the Palestinian environmental law, pesticides and fertilizers is addressed as a hazardous waste and the Ministry of Environment role in coordination with specialized agencies for supplying these material

Article (11) The Ministry, in coordination with the specialized agencies, shall issue one or more lists of hazardous substances and wastes.

Article (12) No person shall be authorized to manufacture, store, distribute, use, treat, or dispose any hazardous substance or waste whether it was solid, liquid, or gas, unless such a process is in compliance with the regulations, instructions and norms specified by The Ministry, in coordination with the specialized agencies.

Article (14) The Ministry, in coordination with the specialized agencies shall designate the environmental conditions for the import, distribution, manufacturing, use, and store of pesticides, substances, and agri-chemical fertilizers, which may pose hazards to the environment.

Article (15) The Ministry, in coordination with specialized agencies, shall set instructions and standards specified for agri-chemicals, that are allowed to be imported, manufactured and distributed in Palestine, and shall ensure observance of it

Palestinian Environmental Assessment Policy

The Palestinian Ministerial Council approves the Palestinian Environmental Assessment Policy, through resolution No: 27-23/4/2000. This Policy shall be interpreted and implemented to support the sustainable economic and social development of the Palestinian people through assisting in meeting the following goals:

1. Ensuring an adequate standard of life in all its aspects, and not negatively affecting the basic needs, and the social, cultural and historical values of people as a result of development activities.
2. Preserving the capacity of the natural environment to clean and sustain itself.
3. Conserving biodiversity, landscapes and the sustainable use of natural resources.
4. Avoiding irreversible environmental damage, and minimizing reversible environmental damage, from development activities.

There are two types of Environmental Assessment (EA) reports that represent sequential stages in the project life cycle and the EA review process: 1) an Initial Environmental Evaluation (IEE), and 2) an Environmental Impact Assessment (EIA). The Ministry shall provide guidance on the content and preparation of these reports. The Initial Environmental Evaluation (IEE) is for projects where significant environmental impacts are uncertain, or where compliance with environmental regulations must be ensured; whereas An Environmental Impact Assessment (EIA) is required for projects, which are likely to have significant environmental impacts. An EIA may be carried out as a result of an IEE.

Based on the Application for Environmental Approval, screening criteria are used to determine whether an Initial Environmental Evaluation or an Environmental Impact Assessment (or none of them) is required for a project. An Environmental Impact Assessment (EIA) shall be conducted for the following types of major development projects:

1. Power plants (including gas turbines, substations and super tension lines)
2. Quarries and mines
3. Wastewater treatment plants including main sewers

4. Cement plants
5. Solid waste disposal sites
6. Hazardous waste disposal sites
7. Plants producing, storing or using hazardous substances
8. Airports and landing strips
9. Seaports, jetties and harbors
10. Refineries
11. Industrial estates
12. Major dams and reservoirs
13. Major roads
14. Steel mills

For project types not listed above, a determination of whether or not an IEE or an EIA must be conducted will be based on screening criteria. Extensions to existing projects of the types listed above shall be subjected for the need for IEE or EIA studies.

The project proponent must first obtain initial approval from the appropriate Ministry or Local Planning Committee. The proponent then submits an Application for Environmental Approval to the Ministry. The Ministry will notify the appropriate permitting authorities that an Application for Environmental Approval has been received and that an EIA is required.

For projects not above, the proponent submits the Application for Environmental Approval to the appropriate permitting authorities as part of his overall application package for initial approval. These authorities then refer the project to the Ministry. The Ministry may ask the proponent for further information to ensure the Application is sufficient for consideration under the EA Policy. In consultation with these authorities and others through the EA Committee as required, the Ministry then applies the screening guidelines and determines whether an IEE Report or an EIA Report is required. If an IEE Report or EIA Report is not required, the Ministry will determine, in coordination with the relevant permitting authorities or the EA Committee as required, whether or not Environmental Approval will be granted and, if so, under what conditions.

Once the Ministry considers that an Application for Environmental Approval is complete, it has a maximum of 14 business days to determine the need for an IEE or an EIA Report, or to determine whether Environmental Approval will be granted based on the Application alone. If this deadline is not met, the proponent has the right to submit a written complaint to the Minister, who must respond in writing within a week from receipt of the complaint.

The Screening process will be based on requirements of relevant land use plans, and on whether the project is likely to:

1. Use a natural resource in a way that pre-empts other uses of that resource,
2. Displace people or communities,
3. Be located in or near environmentally sensitive areas such as natural reserves, wetlands, or registered archeological and cultural sites,
4. Generate unacceptable levels of environmental impact,
5. Create a state of public concern, or

6. Require further, related development activities that may cause significant environmental impacts.

Without limiting its content, an Environmental Approval may specify:

- Required measures to mitigate adverse environmental impacts or capture potential environmental benefits, including a compliance schedule,
- Measures that the proponent must implement in order to comply with relevant standards and requirements; and
- Monitoring and reporting duties of the proponent.

For existing projects and developments, Environmental Auditing (EAU) may be required. Its aim is to mitigate negative environmental impacts through evaluating their environmental management and performance. An environmental audit is prepared by the owner or operator of the development activity, and focuses on mitigation measures for existing environmental impacts to comply with relevant environmental standards and regulations. Decisions resulting from an Environmental Audit Report can include:

- a) Suspension of the permit for the development activity by the permitting authority until specified measures are implemented;
- ii) Agreement on conditions that will be applied to the development activity, including a plan of implementation; or
- iii) Exemption of the development activity from further compliance with the EA Policy.

Annex8

Environmental and Social Issues and Baseline Information

- **Environmental Issues and Project Impacts**

This section summarizes the environmental and social baseline and potential impacts of the MDP types of micro projects considering the following environmental and social issues:

- Climate
- Available water resources and water quality
- Air quality
- Transportation
- Noise
- Vegetables
- Natural habits
- Marine life resources
- Agricultural resources
- Resettlements
- Employment and income
- Culture and heritage
- Recreation and tourism
- Safety and occupational health
- Public health
- Employment and Poverty

- **Climate**

Existing Condition

1. Gaza Strip:

Gaza Strip is characterized by semi-arid climate. The average daily temperature ranges between 25⁰C in the summer to 13⁰C in the winter. The daily average wind speed ranges between 3.9 m\s to 4.2 in the summer and winter respectively. The temperature in the West Bank varies according to the geological position, altitude, and exposure r to marine influences. Generally, the average temperature in summer varies between 20 and 30⁰C reaching a maximum of 43⁰C and the average temperature in winter is about 11⁰C, reaching as low as -3⁰C. wind direction is predominantly from the west and northwest as a speed of 10-13 knots, respectively. Wind speeds blowing from the south range from 3-5 knots.

2. West Bank:

The climate of the West Bank is of the Mediterranean type with moderate summers and warm winters. The mean annual temperature in the West Bank is 22.3°C and the mean annual minimum is 15.6°C. The mean temperature from June to August is 25°C. This value increases to an average of 26.2°C in August. From 1992 until 2004, the highest maximum temperature measured was 41.4°C at 2 pm on May 12, 1996. In winter, the area is influenced by warm air from the sea. The average temperature from December to February is 11.8°C.

The coldest days of the year come in January with an average of 11°C. The above characterize the average temperatures in the eight project governorates in the West Bank.

The rainy season in the West Bank usually starts in October and continues through May. Between December and February, almost 70% of the annual rainfall occur, while 20% of the annual rainfall occur in October and November. December and January are normally the wettest months. The amount of the annual rainfall in the eight governorates varies from year to year and rain may fall with great intensity in wet years.

In the West Bank, where the projects are implemented, the wind direction mainly lies between the southwest and the northwest with mean annual wind speed of 3.4 km/hr. In winter, the area is influenced by the depressions passing from west to east over the Mediterranean. These depressions bring westerly rain bearing winds. The average wind speed from December to February is 4.1km/hr.

In summer, the West Bank is influenced by the sea breeze that comes from west in the morning. Towards noon, winds change their direction to southeast and later in the evening they turn to south and southwest. The average wind speed from June to August is 2.85 km/hr. In September and October, winds are more northerly with an average wind speed of 2.78 km/hr.

In spring, the Khamaseen, desert storm, may occur during the period from April to June. During the Khamaseen, the temperature increases, the humidity decreases, and the atmosphere becomes hazy with dust of desert origin. The mean daily wind speed from April to June is 3.2 km/hr.

Impacts

The micro projects under MDP are of a very small scale to cause environmental impact on a global issues like climate. Thus no impacts are anticipated.

- **Available Water Resources and Water Quality**

Existing Condition

1. Gaza Strip:

In Gaza Strip groundwater aquifer is the only source of fresh water, which is severely polluted, mainly by salt water, nitrates and other pollutants. Gaza Strip is in critical situation that requires immediate and concerted efforts to improve the water situation in terms of quality and quantity. Demand greatly exceeds water supply and very limited water supplied for domestic use is portable. Chloride concentration varies from 30 to 1500 mg /l with an average of 400 mg /l. Nitrate concentration varies from 13 to 380mg /lwith an averageof 110mg /l. The only major fresh water way is the Wadi Gaza ; water flows in Wadi Gaza few days a year, during heavy storms. The rest of the year, it is mainly a conduit for sewage effluent and dumping ground for various types of refuse.

2. West Bank:

The major resources available existing in the West Bank are the Jordan River and the West Bank Aquifer System rainfall is the source of all water resource in the West Bank. The mean annual rainfall as a long-term average ranges between 500 and 600 mm with an average volume of about 3000 MCM/yr infiltrates into the soil and rock strata to recharge the ground water basin. Palestinians have access to only about 20% of these figures. The second resource in the West Bank is the Jordan River. Of 1470 MCM annual flow; very minor quantity reaches the Palestinian riparian in the West Bank, which is of bad quality. The deterioration of Jordan River water quality is attributed to the upstream utilization by other riparian and to Saline springs which are diverted by Israel into the Lower Jordan River.

In the West Bank, generally, the water quality is much better than in Gaza Strip and it is not an issue except for some springs with regards to salinity, hardness, and fecal coliform. The average chloride concentration is about 150 mg/l and the average nitrate concentration is about 43 mg/l.

Impacts

In general, minor pollution risk due to spillage from cesspits or breakdown of sewer and water lines were limited to construction stage. In case of Gaza projects, the risk was higher due to the fact that groundwater aquifer is much shallower than that of the West Bank. On the other hand, sewage lines projects are found to have great positive impact on water resources as it reduces the risk of ground water contamination by eliminating cesspits and discharge to open spaces. Road projects increase runoff quantities and reduce direct infiltration of rainwater to the aquifer due to increasing improved surfaces.

- **Air Quality**

Existing Condition

Compared to other environmental issues within Gaza Strip, air quality is not considered to be a priority. With the exception of fugitive particulate emissions, the ambient air quality appears to be acceptable. This is because Gaza Strip is well ventilated with ample dispersion of emissions from the primary air emissions sources, namely trucks and automobiles. Wind are either from the Mediterranean or from Negev desert, neither of which is a source of anthropogenic emissions. Particulate matter appears to be principally in the form of dust from disturbed surfaces. The streets, paved and unpaved, are sources of particulates that are entrained into the air from motor vehicle tires and the wind. This occurs because the streets are not cleaned, there is little ground cover, and street drainage is poor, resulting in thick layers of silt deposits.

The West Bank, which houses few heavy industries, suffers from substantial air pollution especially in the main urban areas and their vicinities. More than 90% of pollution is a result of human activities. The increase in population of the West Bank, the expanding of industrial activities, and the transboundary air pollutants are key factors to the deterioration of air quality in the West Bank. The lack of preventive legislation, codes and regulation to protect the environment leads to the heightening of the effect of the human activities on air pollution. Climate and topography play a crucial role in transmitting air pollutants from one place to another. Among the most common and dangerous air pollutants in the West Bank are sulfur dioxide (SO₂), suspended particulate matter (dust), nitrogen oxides (NOX), carbon oxides (COX) and lead (Pb).

Impacts

In case of sewage, water, and building projects, the impacts on air quality were limited to construction period. These impacts were limited to construction time and were localized within the project area. During operation, no impacts are anticipated. Road projects reduce dust generated from unpaved roads generated by motor vehicles and people. On the other hand, they have minor negative impacts since they increase air pollution by emitting Carbon Monoxide(CO) due to additional traffic.

- **Transportation**

Existing Condition

the road network in Gaza Strip, which totals approximately 3,219 linear km in year 2007, consists of a poorly developed and largely neglected road system. Regional (north-south) transportation is limited to Salah El-Dean Road or Road # 4. Agricultural road networks do not exist. The same condition exists in the West Bank. Transportation is the largest contributor to pollution that affect air quality in the West Bank and Gaza Strip. Its impacts are seen in the poor air quality along roadsides and degradation of buildings along traveled roads. The impacts of transportation can be fairly well estimated by knowing the number of vehicles operating in the West Bank, along with traffic and road conditions. At least 69,296tons of CO₂ 3,860tons of SO_x 3,666tons of NO_x , 6512tons of hydrocarbons (HC) volatile organic compounds and 257tons of lead were emitted to the West Bank atmosphere in 1997 considering the number of registered cars only. Added to this, there are approximately 36,500 settlers cars in the West Bank which estimated to emit 11,483 tons of CO₂ 1,185 tons of SO_x ,1,299 tons of HC and 80 tons of lead to the West Bank's atmosphere.

Impacts

In general, the micro projects under MDP ICDP are of a very small scale to cause any environmental impact. Minor localized impacts were limited to traffic disturbance during construction. Improvement of roads is expected to increase traffic flow to certain areas, which may locally increase most of the above-mentioned emissions but will reduce air pollution associated with dust due to unpaved roads.

- **Noise**

Sources of noise pollution in Gaza Strip and the West Bank are mainly traffic and motor vehicles, construction of roads and buildings and industrial activities in addition to noise pollution resulting from Israeli military aircraft and military training activities. In Palestine, noise pollution from cars has increased since there has been no improvement in the road system and the number of cars rises by about 12% every year leaving the system more crowded. Noise pollution is also increased because most of the vehicles are old and not in good working conditions. Moreover, it is the habit of the people to use their horns frequently specially in traffic jams. In many places, vehicles noise pollution is exacerbated by the topography of the West Bank; vehicles produce greater noise as they work to climb hills. For security reasons, there are checkpoints both at the entrance to Israel and in many places between areas inside the West Bank. These checkpoints interrupt the flow of traffic and cause areas of intense vehicles noise especially when the frustration level rises and horns are used. Industries add to the noise pollution since they are unregulated and often operating below the standards. Many of the industrial facilities in Gaza Strip and West Bank are located near or within residential areas,

making the noise a problem for neighbors. Road and building construction add great amounts of noise to life in the commercial centers, neighborhoods and rural areas.

Impacts

In case of sewage, water, and building projects, the noise impacts were limited to construction period due to construction machineries. These impacts were limited to construction time and were localized within the project area. During operation no impacts are anticipated. Road projects have minor negative impacts since they increase noise due to additional traffic. This negative impacts can be minimized by applying proper mitigation measures and follow up the environmental management plan.

- **Vegetation**

Existing Condition

Palestine contains 113 families of flora with 2,392 species. Undisturbed vegetation hardly exists in entire Gaza Strip due to the fact that most of the land uses is dominated by urban and agricultural use. The overpopulation has resulted in tense development and pollution pressures and in the over-exploitation of Gaza's natural resources.

The coastal dunes have somewhat higher species richness than other areas. The eastern plains, which receive only 150 to 300 mm of rainfall annually, are characterized by patchy dwarf shrub vegetation adapted to the loess soils and extreme temperatures. The cultivated species of agricultural are directly contributing and supporting the major agricultural income for the Palestinian economy. The economic value of several biological uses could be; Food and ; Plants (the West Bank is rich with plants that gave different medical values, such as herbs, gums and resin plants). Forest Plants and forests covers approximately 51.5 km² of the areas of the West Bank). The beauty of wild flora in the West Bank gives a significant ornamental importance to the area.

Impacts

Directly, improving water and waste water services would increase the amount of wastewater available for treatment and thus, reuse in irrigation altering the vegetation. Construction of few structures and roads above ground has caused some disturbance to the vegetation within the immediate vicinity of footprints of these facilities. It is not anticipated the unique vegetation of special concern to be affected by these types of projects due to the scale issues.

- **Natural Habitats**

Existing Condition

Palestine has variety of habitats and consequently a wide range of fauna in Palestine consists of 67 families of birds of which 45 are of local breeds, 33 families of mammals, and 93 species of amphibians. The majority of the bird species seen in Gaza Strip are migratory, since the region is near a major migratory flyway from Africa to the Palestine Eurasia. As a result, dense bird population, representing approximately 185 species, can be found in Gaza Strip in the spring and fall(UNDP 1997 and PEPA, 1994). Two of the most abundant birds

are crows and house sparrows, considered a nuisance to agriculture. In the West Bank approximately 470 species of birds are present in the West Bank. The 470 species of birds belong to 260 Genera, divided into more than 65 families and 21 orders. The number of mammalian species in Palestine reaches 113, including 27 different species of bats.

Impacts

Generally, in case of small-scale construction activities, the potential to destroy the habitat of various reptiles, mammals, or amphibians within the footprints of the construction sites were limited to construction stages. Bird species would be unlikely affected by operation of the assessed projects, since they have the ability to relocate more easily to similar, potentially, more distant habitats.

- **Marine Life Resources**

Existing Condition

Marine species of Gaza Strip consists primarily of fish resources, which are characterized by low densities due to the oligotrophic conditions of this part of the Mediterranean. More than 170 known Mediterranean fish species inhabit this coastal part; however, only seven percent of these are indigenous species. Marine fishery resources are of great importance to the population and contribute much to their income and sustainability. In addition to fish, approximately 250 species of macro-benthic organism are recorded in Gaza Strip coastal waters, to depth of 80 m. These include members of Mollusca, Crustacea, Polychaeta.

Impacts

The assessed projects components do not have any significant impact on the marine life. Some positive impact is expected from waste water projects since less polluted water will be flowing to the sea.

- **Resettlement**

Existing Condition

The population of Gaza Strip is characterized by three distinct sectors: an urban population, a rural population, and a refugee camp population. The Palestinian Central Bureau of Statistics estimated the population of Gaza Strip to be approximately 1.5 million persons in 2009 (PCBS, 2009). The population density within the eight refugee camps is nearly 38,600/square km, placing it among the most densely populated areas in the world. Even the urban areas have population densities of approximately 4,073/square km.

The population of the West Bank is estimated at 2.4 million people (PCBS, 2009). The West Bank has a population density of approximately 433 individuals/km². However, urban areas in the West Bank which are the focal point for almost 34% of the West Bank population suffer from higher population densities. The remaining 66% are distributed over more than 540 villages and hamlets and 18 refugee camps.

Impacts

Generally, the assessed micro projects were found to have positive environmental impacts on the issue of population and housing. Sewage lines projects are found to have great positive impacts regarding the overall environmental situation. It reduces the risk of pollution and waterborne diseases and reduces the daily work of women in cleaning and cloth washing by eliminating open space discharge of raw sewage where children are playing. Roads projects provide comfortable access to schools, mosques, and houses without any problems.

Although road and pavement projects may increase accidents risk due to traffic, it will improve the economic value of the land and encourage organized housing and small business in addition to better accessibility. Construction of classrooms and sanitation services for school enhances the educational process by providing more space and cleaner environment for students. This will give more opportunity for raising environmental awareness and education. Public Services Buildings improve the level provided by the Council and improve the cultural education, environmental awareness, and provide better services and regulation for the different categories of the community.

- **Employment and Income**

Existing Condition

The total workforce in West Bank and Gaza is estimated at 475,500 by the year 2009. The standard unemployment rate is about 24.5% of the total work force while the adjusted unemployment rate is 44.7%..

Overall, loss of jobs in Israel has been the driving force behind the high unemployment figures. Prior to the implementation of mobility restrictions in October 2000, approximately 145,000 Palestinians were employed in Israel. These totals dropped to 61,000 by Q1-2002 and 33,000 by Q2-2002. Income loss from this decline in employment in Israel was substantial. In 1999, approximately 17 percent of Gross National Income came from Palestinians employed in Israel. By 2001, this share shrunk to 11 percent and diminished even further in 2002.

Impact

These types of projects provide some short-term and fewer long term job opportunities for local community. Sewage and water projects have great positive impacts on the overall environmental situation. This in turn reduce the expenditure on medication by reducing the risk of pollution and waterborne diseases. Road and pavement projects reduce the expenditure on vehicles maintenance. It also improves the economic values of land and creates more investment opportunities.

- **Agricultural Resources**

Existing Condition

Historically, agriculture functions as the main source of income in the Palestinian economy. However, Israel has imposed restrictions on the amount of fresh water that can be used by Palestinian farmers. As such, irrigated agriculture in the West Bank becomes limited comprising only approximately 5% of the entire cultivated area. In Gaza Strip, irrigated agriculture comprises about 45% of the cultivated land and consumes about 60% of the water abstraction from the over utilized polluted aquifer. Irrigated agriculture, however, is a source of environmental pollution because of extensive use of pesticides, fertilizers and plastic sheets. Farmers have used increasing doses of chemical at a persistent rate particularly in irrigated farming without knowing the negative effects of such practice. The intense use of chemicals can cause severe illness and death as well as soil and water contamination especially in Gaza shallow aquifer. With the increase of population, demand for agricultural land increases while forests and grazing land gradually diminishes. This leads to further degradation of the environment.

Impact

Excavation and backfilling activities usually generate dust. The prevailing winds may carry the suspended matters around the construction site. This may affect the nearby crops as it reduces temporarily photosynthesis and causes flower falling during flowering stage. This impact is usually limited to construction stage. In the long run, pavement of roads will reduce dust generated from moving traffic over unpaved roads. Sewage and water supply projects would increase the potential of wastewater treatment and thus, reuse in agriculture.

- **Cultural Heritage**

Existing Condition

The geographical location of the Gaza Strip has contributed to its notable diverse history and heritage. Gaza Strip is located midway along the ancient sea highway connecting Egypt and the remainder of Africa to the south, with the land of Canaan and Asia to the north. This highway was referred to in Egyptian inscriptions as the "Horus Way", in the old testament as "The Way to the Land of `Philistines", and during the Greek and Roman period as "Via Maris", the sea way. The hundreds of settlements along the shore line west of the north-south highway or along the caravan road have left abroad range of archaeological evidence, representing the material culture of almost seven thousand years of history, and reflecting the influx of international material and influence.

The West Bank (about 5,690 square km) is one of the most important historical parts of the world. During the last century a large number of archaeological sites were discovered and excavated. They present the different historical phases of the area since the Neolithic time down to the present day. The most important sites are located in Jerusalem, which was built by Juba sites some 6,000 years ago. Jerusalem possesses many archaeological sites and historical buildings concentrating within the walled and fortified old city and the close surrounding area.

Impacts

Implementation of MDP projects would have the potential to uncover, damage, or destroy archaeological resources. Numerous undiscovered resources may be within a few meters of soil surface and remain unknown in the future, unless unearthed by future construction or excavation. In future construction work, excavation should be done carefully especially in the areas of potential archaeological sites. Once the construction is completed, negative impacts are no more anticipated. During the construction work, if any material of an archaeological nature, such as burned or blackened material, brick or tile fragments, coins, pottery or bone fragments, skeletons, timber joists or post holes, brick or stone foundations are encountered by the contractor during work, this should immediately be reported to MDLF to take the necessary actions and inform the concerned parties.

- **Recreation and Tourism**

Existing Condition

The beaches along the 40 km of the coast of Gaza Strip are the main source of recreation for Gaza population. However, the seawater is often below generally organized standards for swimmers, and beaches themselves contain dangerous waste. Palestine in general and the West Bank in particular is considered the earliest spot where human civilization started. The above-mentioned archaeological sites and historical buildings, specifically in Jerusalem, Bethlehem, Hebron, and Jericho are considered the most important potential for the Palestinian tourism industry. In spite of the achieved investment in the field of tourism, the Palestinian tourism needs to be further developed. In addition to the historic sites, the territories of the West Bank have the most exceptional aesthetic and typographical features in Palestine.

Impacts

Generally, all infrastructure projects improve the environmental awareness of the people as the project implementation is enhancing the people to work seriously to keep the environment clean. To a certain extent, pavement of access roads may encourage tourism to this particular place. The other assessed projects may not have any impact on tourism resources, as the physical construction are very limited.

- **Safety and Occupational Health**

Existing Condition

It is apparent that waterborne pathogenic bacteria, parasites, and viruses currently pose a major health problem for Gaza strip . The health status of the residents of refugee camps and municipalities indicates strongly that the environment remains a source of disease. Only 5% of the water supplied for drinking purposes in the Gaza Strip satisfies WHO guidelines. The water from most of the springs in the West Bank is contaminated with coliform bacteria, particularly with fecal coliform. Its quality ranges between 'hard' to 'very hard' and may need softening to reduce the effects of excessive use of detergents.

The poor wastewater collection, conveyance, storage, in combination with improper solid waste disposal and inadequate drinking water supply and distribution has led to increased health risks associated with mosquitoes, large flies, rats, and other vectors. Stagnant pools of waste water and/or storm water enhance mosquito breeding and large fly populations. These stagnant pools include areas such as the sludge ditches within refugee camps, low-lying points filled with a mix of storm water overflow, and improper dumping grounds of household liquid waste.

Public health risks are also related to risks generated by different project activities during the construction any or the operation phase of the project. Those may include risk of accidents by transportation facilities or construction equipment, noise generated by construction facilities or operating generators, and dust pollution.

Impacts

During the construction phase, the impact of MDP project components depends mainly on the sector of the proposed activity. Negative impacts on workers' health may arise due to the exposure to noise, high

temperature, dust, and work accidents. These impacts could be characterized as local, direct, short-term and mostly insignificant.

Implementation of small scale sewage and water projects may not solve the water quality problems in terms of salinity and TDS, but, would locally provide better water supply and sanitation services for the community under consideration. These services include more reliable water supply and health disposal of wastewater. This will indirectly cause lower incidence of disease, lower infant mortality, and an overall longer life span.

The improvements on the level of services would decrease the risk associated to groundwater pollution, thus reducing the spread of pathogenic infectious diseases. Proper wastewater collection, conveyance, and storage will reduce health risks associated with mosquitoes, large flies, rats, and other vectors.

Road pavement projects will reduce dust generated by moving vehicles on unpaved roads but may increase other vehicles emissions due to potential increase in traffic over paved roads. It would also increase the accidents risk due to increased speed. These impacts can be easily mitigated through traffic regulations and monitoring.

Annex 9:

Minutes of Meetings for ESMF Public Consultation

ESMF Consultation workshops

Cluster	Date	No of attendants
Gaza	26/12/2012	31
Middle	27/12/2012	38
Northern	30/12/2012	43
Southern	03/01/2013	48

Agenda

Subject	Timing
Registration	10:30-11:00
Opening Speech	11:00-11:15
MDP II overview	11:15-11:45
Break	11:45-12:00
ESMF Session	12:00-13:00
Discussion	13:00-14:00

Herein follow the main topics raised in each cluster and MDLF team response

❖ Gaza Strip ESMF Workshop/ AlWusta

Main points been addressed:

Attendee argued to convert the paper file of the environmental management plan into realistic one that can be set and monitored.

→ ESMF is based on experience and studying real cases of MDLF projects since 2005.

attendee stated that MDP need to focus on the operational phase of the subprojects in terms of environmental, social and necessary follow-up to that.

→ ESMF do consider all project stages through identifying issues and related recommendations that might rise in each stage, noting that implementation stage been thoroughly covered.

Attendee asked to develop a certain weight to environmental and social matters during the classification of contractors in order to classify a contractor as an enemy of the environment and deduct points from their total ranking points.

→ It's hard to measure; as contractors compliance to environmental considerations is totally dependent on municipality supervision and compliance to ESMF.

Attendees requested to order the contractor to submit environmental insurance which to be liquidated if any noncompliance occurred.

→ As known, in MDP I and any other projects with environmental recommendations; if contractor sign commitment sheet, he'll allocate budget to implement environmental, health and safety requirements based on degree of municipal supervision.

attendee argued for pest control material to be acceptable to Ministry of Health(MOH), Ministry of Agriculture (MOA)in addition to having sealed, licensed lab recommendation not only to supply material that been regulated to be WHO permissible.

- MDLF process ensures that Municipalities are to identify which pest control to be requested in the next phase where these material will be acceptable by WHO regulation and approved by MOH and MOA as any pest control entering land has to be tested and stamped by one of those ministries based on type of pest control. Further; Municipalities are to provide operation plan, availability of storage location, and trained personnel to fulfill the assignment.

Attendee argued to change the operational subproject eligible under solid waste collection into solid waste management (treatment and reuse of solid waste) and not to connect/correlate the operational subprojects duration with the development project!

Further; he inquired of the possibility that MDP to include supplying of new solid waste trucks as many are old and are to be replaced.

- it's the Municipality to choose the project, MDLF can only guide municipalities to improve their subproject efficiency.

Attendee encouraged collaboration in between Gaza youth center and MDLF, and other Municipalities to pass their knowledge of environmental awareness program among youth.

❖ Middle ESMF Workshop/ Ramallah

The Local Councils of Jerusalem Governorate suffers from illegal Solid Waste landfills and waste water problems, primarily because they are adjacent to the separation wall with absence of regulations and law enforcement, and they paged for projects related to wastewater and proper closure of the old landfills.

For example, it was recommended by BirNabala Local Council to conduct a project that aim to recycle the solid waste in order to benefit environmentally and economically from recycling.

Attendee recommended to increase the environmental specialist visits to detect any existing environmental issues.

- The municipality engineer is to supervise and monitor the project implementation on daily basis considering technical and environmental issues, while the LTC engineer and MDLF engineers visits would be conducted on weekly basis and when required for superior supervision and to conduct on job training for efficient supervision. .

Attendee asked if the MDP projects cause Involuntary Resettlement.

- None of MDP Projects are permitted to cause any involuntary resettlement.

How to control noise as it's inevitable of any infrastructure project?

- The municipality should define the noise working hours with the community in the focus group sessions and are to reflect it in the official subproject documents . Furthermore, continuous supervision, monitoring and to immediately act if there is any complaint is mandatory.

Attendee argued if there is unrealistic/ exaggerated opposition on implementation even if concerns been raised and solved in focus group sessions and reflected in project implementation..

- The MDLF clarified that the municipality have to receive all complaints and verify its implications on community, in addition to periodically report it to MDLF.

Jericho Municipality recommended conducting orientation session for the contractors.

- The Contractors Association had been invited for the ESMF consultation workshop and didn't attend; furthermore; municipalities engineers are to introduce the ESMF and changes and to ensure that contractors are aware of it, especially the Penalties Changes to the Contractors in the Pre-Bid Meeting.
- Attendee** inquired about the MDLF prerequisite of 30% of women and youth participation in public consultation within SDIP's preparation, where their main concern is how to meet this target in their conservative communities.
- The MDLF responded that the Municipality should invite as many as they can of female representatives and follow up the invitations to ensure their presence, and if the percentage wasn't complied; the municipality have to justify it.

❖ North ESMF Workshop/ Nablus

Different municipalities argued MDLF to allocate certain share to implement holistic water and waste water projects.

- MDP allocation depend on MDLF Transfer Mechanism which allocates the available fund for all Palestinian Municipalities then the municipality are to select a project according to its SDIP or community participation (if there is not SDIP) priorities correlated to its allocation and the availability of other fund resources.

Attendee stated that the MDLF regulations that had been applied for the waste water tanker were too much for the municipality.

- The MDLF requirements were to ensure that the municipality is capable to operate the waste water tanker without any environmental negative consequences such as throwing sewage into Wadis instead of transferring into the treatment plant.

Furthermore, the **attendee** requested to minimize the environmental and social monitoring mitigation measures.

- The MDLF came up with the mitigations measures after investigating several environmental and social issues within previous MDLF programs in addition to consultation with MEnA.

Attendee: How to control noise and dust as they are inevitable of any infrastructure project?

- The municipality should define the noise working hours with the community in the focus group sessions and to reflect it in the official documents. Furthermore, continuous supervision, monitoring and to immediately act if there is any complaint is mandatory.
- Regarding controlling the dust, the municipal supervising engineer is to follow the dust controlling on daily basis and if any incompliance; he should impose environmental note initially and penalty lately. As well, in road projects the guideline entitled "*the provisional guidelines for road projects*" provide the municipality engineer with the recommended regulations and actions to be taken.

Attendee focused on the necessity of other ministries and institutions presence, since there are different projects mainly the central government projects, are not under the municipality mandate.

- MDLF invited all concerned entities including MEnA, PWA, MoLG, Engineering association and Contractor Association, but unfortunately many didn't show up.

❖ Southern Cluster ESMF Workshop/ Hebron

Attendee stated that the contractor are required to get clearance certificate from Municipality departments before project closure, and are to pay any expenses if the municipality have overseen, and asked to disseminate this measure to all other municipalities to facilitate their work.

→ MDLF require reinstatement at project site as specified in bidding documents.

Some municipalities argued that the environmental penalties procedure to include a section that allows municipality to conduct the environmental mitigation measures if the contractor failed/refused to comply to it according to project specifications, to allow compensating the municipality in return for the harm, and to impose the environmental penalties. Furthermore they inquired how the municipality will benefit from the deducted penalties.

→ This issue will be thoroughly discussed with the procurement department in order to efficiently set this penalty section within the bidding document.

→ For the benefit; yes Municipality and citizens will benefit from implementing the environmental measures and will also benefit from implementing incompliance penalties which will assist in enforcing environmental mitigation measures implementation parallel to efficiently implementing the scope of work mentioned in the bidding documents.

Attendee suggested implementing large projects as sewage system projects along with MDP projects.

→ MDP allocation depend on MDLF Transfer Mechanism which allocates the available fund for all Palestinian Municipalities and the municipality are select a project according to its SDIP or community participation (if there is not SDIP) priorities correlated to its allocation and the availability of other resources.

Who is conducting the environmental screening and evaluation?

→ Environmental and Social Officers of MDLF to screen the projects environmentally and socially.

Attendee inquired about the role of focus groups sessions as many people complain during the project implementation after issues been discussed, approved and already reflected in the project

→ It's the municipality role to invite sample of stakeholders whom should be responsible on passing the word to their neighborhood, further; its municipality role to announce the project (duration, start date, etc) and its role to receive all complaints and solve them on municipal level.

Attendee inquired about the MDLF prerequisite of 30% of women and youth participation in public consultation within SDIP's preparation, where their main concern is how to meet this target in their conservative communities. The MDLF responded that the Municipality should invite as many as they can of female representatives and follow up the invitations to ensure their presence, and if the percentage wasn't complied; the municipality have to justify it.

Attendee inquired about the role of civil society organization in defining and prioritizing the proposed projects.

→ Civil Society role is vital to enhance the public consultation sessions for choosing projects essential for the community either in SDIP or community participation.

Attendee asked to add a provisional item in BOQ to assess the penalties ceiling

- ➔ Penalties in detail are to be inherited in the bidding document based on sector EMP in addition to any certain conditions requested by the community in focus group sessions.

Attendee How the contractor will know how to implement ESMF?

- ➔ ESMF is part of the bidding document where he is to read and sign commitment to implement all environmental mitigations, and also noncompliance penalties are depicted within the bidding document. Furthermore; the Municipality Engineer role in pre-bid meeting is to clarify and explain the latest ESMF requirements.