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List of Abbreviations

CAF	**Charities Aid Foundation**
EA	**Environmental Assessment**
EIA	**Environmental Impact Assessment**
EMP	**Environmental Management Plan**
EAu	**Environmental Audit**
EQA	**Environmental Quality Authority**
EO	**Environmental Officer**
ES	**Environmental Index**
EI	**Environmental Index**
EEM	**Environmental Evaluation Matrix**
IEE	**Initial Environmental Examination**
LGU	**Local Government Unit**
SEA	**Strategic Environmental Assessment**
MLG	**Ministry of Local Government**
MOH	**Ministry of Health**
NDC	**NGO Development Center**
NGO	**Non-governmental Organization**
PNGO	**Palestinian Non-governmental Organizations**
PMO	**Project Management Organization**
PO	**Project Officer**
WAC	**Welfare Association Consortium**
WA	**Welfare Association**

1. INTRODUCTION

The Palestinian NGO Project (PNGO) is a major initiative of the World Bank, which began in 1997, when the Welfare Association Consortium (WAC) composed of the Welfare Association (WA) as the lead partner, the British Council and the Charities Aid Foundation (CAF) won the World Bank's competitive tender for the management of the Project. The consortium formed a management partnership, which oversees the work of the Project Management Organization (PMO). The PMO was the implementing agency for the two PNGO I and PNGO II projects.

The World Bank has been requested to support a third Palestinian NGO Project based on the successes of the first two. The Palestinian NGOs still need support and a reliable funding in supplementing their services to vulnerable communities, which the public service delivery system does not adequately reach. NGOs, particularly smaller community-based NGOs, need strengthening, especially in effective planning, managing and monitoring of their service delivery programs.

The proposed development objective of PNGO III project is to institutionalize mechanisms for supporting the Palestinian NGO sector and thereby improve access for effective social services to poor and marginalized communities.

The project will support the development of a credible and sustainable professional agency (the NGO Development Center, NDC) which will effectively provide technical, policy and funding support to NGOs service delivery programs in the West Bank and Gaza Strip. NDC will oversee the management of PNGO III project.

The PNGO III project will have three main components; Institutional Development of NDC, NGO Grant Facility and NGO Sector Development.

To proceed with the preparation of the project it is necessary to prepare an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) as part of the procurement requirements under the Project. These two environmental reports shall be in compliance with the World Bank policies and procedures.

Dr. Hafez Shaheen, Director of Water and Environmental Division of Universal Group for Engineering and Consulting has been consulted to prepare the EIA and EMP for PNGO III project. The EIA and EMP study for PNGO III should provide the following key outputs:

- Identify the types, nature and scale of interventions under the NDC components of the 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 project-EMP and applicable safeguard documentation to address potential impacts;
- Evaluate the existing institutional capacity of the Borrower to manage the recommendations for implementing the measures outlined in the EMP;
- Provide recommendations to build capacity and strengthen environmental management;
- Develop procedures to identify and address potential environmental and social safeguard issues of PNGO subprojects;
- Provide a detailed budget for mainstreaming environmental and social issues into the PNGO project budget.

The EMP is prepared as a separate document, where details for administering and monitoring the potential environmental impacts and their mitigation measures are presented. In the EMP sample matrices for selected projects are annexed. In addition the terms of reference for preparation of EIA for selected project sectors are presented in the EMP.

This report is the EIA addressing the potential impacts and mitigation measures. It serves as the applicable safeguard document. It provides detailed analysis and assessment of the environmental aspects related to the subprojects and investments of PNGO III.

2. OVERALL ENVIRONMENTAL SITUATION

The PNGO III project is to be implemented in the Palestinian Territories. Through its NGO grant facility component, the project is to provide different types of grant schemes and tailored capacity building activities for social services delivery. Among the different grant schemes that are envisaged under this component is piloting NGO-Local Government partnership through joint activities to be implemented by municipalities and NGOs. Examples of these activities are power conservation, agricultural services, solid waste reduction, community services women centers and

recreational activities. Municipal services covered projects in the fields of water and wastewater, solid waste, road rehabilitation, and electricity.

PNGO III is thus to target in addition to the NGOs and civil and public institutions, several towns, communities and local units distributed among the different governorates of the West Bank and Gaza Strip. The baseline information for the West Bank and Gaza Strip considering the environmental issues are as follows.

2.1 TOPOGRAPHY

The West Bank and Gaza Strip are characterized by great variation in their topography and altitude. The variation in elevations in the West Bank ranges between 1020 meters above sea level and 375 meter below sea level. The highest point is located near Khirbet Khillan to the north of Hebron City and the lowest point is at the northeast tip of the Dead Sea. The West Bank is divided into four major geomorphologic features: Nablus Mountains, Jerusalem Mountains, Hebron Mountains and the Jordan Valley. The mountains extend over the length of the central parts of the West Bank from Jenin in the north to Hebron in the south. The drainage and valley systems originate from the mountain range and extend either eastwards or westwards.

The Gaza Strip is essentially a foreshore plain gradually sloping westwards. In the north of Gaza Strip, there are four ridges with different elevations range between 20 to 90 meters above sea level. The ridges are the coastal ridge, the Gaza ridge, the El Muntar ridge and the Beit Hanoun ridge. Active dunes can be found near the coast especially in the southern part between Deir el Balah and Rafah. Areas with large accumulation of loess are found 15 km southwest of Gaza and east of Khan Yunis.

2.2 CLIMATE

The West Bank and Gaza Strip lie within the Mediterranean climatic zone. This zone is characterized by winter rain and summer drought. Only the lower Jordan Valley has a different transitional climate between dry steppe and the extreme desert conditions of the Dead Sea region. Rainfall is limited to the winter and spring months, mostly between October and April. Annual rainfall ranges between 715 mm in Ramallah, 145 mm in Jericho and even less in the Dead Sea area. The overall annual average rainfall in the West Bank is between 450-500 mm.

The mean monthly temperature in the West Bank during the summer months, from June to August, ranges from 21.7 to 23.7^{o}C, whereas it ranges from 30 to 32^{o}C at the Dead Sea. In winter,

December to February, the mean monthly temperatures in the West Bank range from 8 to 14.2°C. In the Dead Sea area, the average monthly air temperature ranges between 15 and 20°C during the winter months. The relative humidity in the area varies between 50-70% with a maximum value in January and minimum in June.

The mean annual relative humidity is 61% in Nablus, 69.6% in Tulkarem and 52% in Jericho. Evaporation is particularly high in summer, due to the rise in temperatures, intensive sunshine and the low humidity. The mean monthly evaporation rates from June to August are 215.1 mm/month in Hebron, 277.3 mm/month in Nablus and 284.9 mm/month in Jericho. The mean monthly evaporation rates from December to February are 55.1 mm/month in Nablus, 69.4 mm/month in Hebron and 70.9 mm/month in Jericho.

The Gaza Strip is located in a transitional zone between the arid desert climate of the Sinai Peninsula and the temperate and semi-humid Mediterranean climate along the coast. The average temperature ranges from 25°C in summer to 13°C in winter. The daily relative humidity fluctuates between 65% in the daytime and 85% at night in the summer and between 60% and 80% in the winter. Average rainfall ranges between 400 mm in the north and 230 in the south of Gaza Strip.

2.3 WATER RESOURCES

Water resources in Palestine include both surface and groundwater. The only permanent river that can be used as a source of surface water in the West Bank is the Jordan River. Since the occupation in 1967, Palestinians have no access to the Jordan River and are forbidden from using its water. In addition and due to the several irrigation projects upstream by both Israel and Jordan, the flow in the Jordan River is getting very low and the Dead Sea water level is getting lower.

Several wadis are flowing eastward and westward in Palestine and draining rainwater and springs into the Jordan River and the Dead Sea or into the Mediterranean Sea respectively. Few of these wadis have streams that flow all over the year as they are supplied by groundwater springs.

There are 114 major freshwater springs in the West Bank with a minimum discharge of 0.1 l/sec as measured by the West Bank Water Department. Of these, 16 springs are being used for domestic purposes and the rest for agricultural use. Few springs are supplied with adequate piping and

pumping systems, while most of them are left ignored and water is lost through evaporation and leakage while flowing through the wadis.

Groundwater is the major source of fresh water supply in the West Bank and Gaza Strip. In the West Bank, the aquifer system is composed of three aquifers according to direction: the Western, Northeastern and Eastern. In the Gaza Strip, the groundwater exists in the Coastal Aquifer (shallow aquifer), which consists mainly of sandstone, sand, and gravel. It is the extension of the Coastal Plain Aquifer in Israel. The aquifer is highly permeable with a transmissivity of about 1000 m^2/day and an average porosity of 25%. The depth to water ranges between 70 m in the highly elevated areas in the east and 5 m in the low land areas. Figure 1 presents the main groundwater aquifers in the West Bank. In Gaza Strip, the costal aquifer system underlie most of the area.

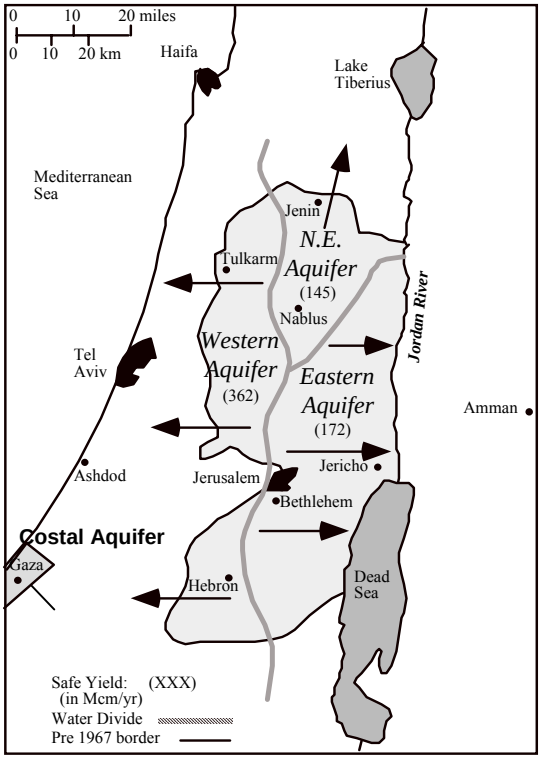

Figure 1: The main groundwater aquifers in the West Bank and Gaza Strip

The Palestinian water consumption is low due to restrictions imposed by Israel on water pumping. The main difficulty for the Palestinian water supply is the unequal distribution of water between the Israelis and Palestinians, which arises from the Israeli control over water resources.

Around 86% of West Bank and 98% of Gaza Strip populations have piped water supply systems. The remainder depends mainly on cisterns and springs for their water use. Many people with access to water networks still suffer from water shortages, especially during the summer months.

The overall loss of water in the systems is estimated to vary between 25% in Ramallah and 65% in Jericho with an average of 44% of the total supply. In the Gaza Strip, the overall loss rate is estimated at 45% of which 35% is due to physical losses and 10% is due to unregistered connections. Recently several projects have been implemented to improve the efficiency of the water systems and to reduce the unaccounted for water and the losses.

2.4 HEALTH SECTOR

Since the onset of Israeli occupation, the Israeli military authorities have implemented policies that neglected the existing health services and led to the disintegration of health-care infrastructure in Palestine. The natural development of this sector was impeded by tight restrictions, including the denial of funds, the blocking of further development and the linkage of health-care institutions to their Israeli counterparts. After the establishment of the Palestinian Authority, considerable developments of the health sector took place, but are still far from the needs of the Palestinians. Therefore, any development project should consider the effects on the public health as one major part of the environmental conditions.

2.5 SOLID WASTE MANAGEMENT

Solid waste comprises of waste resulting from household, medical and industrial activities. In Palestine, solid waste management is the responsibility of the municipalities, village councils, village communities or UNRWA in the refugee camps. 25% of the population of the West Bank does not have a solid waste collection or management program, and their waste is dumped randomly. However, the situation have recently been improved in Gaza Strip and several towns and villages have storage and collection system and most of the solid waste, excluding the Northern district, is disposed of in a satisfactory manner.

It is estimated that 2,600 tons of domestic waste is generated daily in the West Bank and Gaza Strip in addition to 450 tons of domestic waste generated by the 350,000 Israeli settlers living in the West Bank. Evidence shows that much of the solid waste generated by settlers is being disposed of

on Palestinian land, in addition to the illegally transferring of toxic waste generated inside Israel into the West Bank.

Appraisal of solid waste from Palestinian communities has shown that the majority of waste is organic material, mostly in the form of food waste. In addition, plastic bags are used and disposed of frequently. Paper makes up a relatively small portion, much of which is cardboards and newspaper. Most disposal sites are unplanned and unmanaged open dumps with little consideration being given to their proximity to people, agriculture, or water resources. Often, the solid waste is burned at these sites causing serious air pollution.

3. ENVIRONMENTAL LEGISLATION AND REGULATIONS

3.1 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, in addition to public awareness, education and training.

The law addresses various environmental issues including:

- Addressing 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, 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 low 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".

3.2 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 three types of Environmental Assessment (EA) reports that represent sequential stages in the project life cycle and the EA review process: 1) an Application for Environmental Approval, 2) an Initial Environmental Evaluation (IEE), and 3) 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 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. Waste water 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 a screening criteria. Extensions to existing projects of the types listed above shall be screened for the need for IEE or EIA studies.

The 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 or not 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 which 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.

In some cases a Strategic Environmental Assessment (SEA) is required. The SEA is designed to address the cumulative and synergistic impacts of many projects in the same area. These types of impacts may be unavoidable at the project stage, and are more easily anticipated and avoided or mitigated at the preceding plan or program stage. SEA is most often used to guide public-sector

decision-makers in the development of government plans and programs. The SEA may be used for plans and programs such as:

a) Power generation and supply
b) Solid waste management
c) Transportation infrastructure development
d) Tourism infrastructure development
e) Parks and natural reserves development and management
f) Development and management of industrial policy and estates
g) Master plans
h) Agricultural development programs

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:

i) 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.

4. LEGAL STATUS OF NGOS

The Palestinian Law for Charitable and Non-Governmental Organizations No. 1 of 2000 has given the Palestinians the right to practice and form social, professional, charitable and non-governmental organizations. Before 2000, the Othman Law of Charitable Organizations of 1907 and the Jordanian Law for Charitable Organizations No. 33 of 1966 were still functioning is Gaza Strip and West Bank respectively.

No clear civil organizations were active before 1948, the end of the British mandate on Palestine. After 1948 war, six charitable organization were found and were active in releasing the effects of

the war. From 1948 to 1967, Gaza Strip was under the governance of Egypt, while West Bank was under the governance of Jordan and was considered as Jordanian Territories. During that period the civil and charitable organizations were strictly controlled but to less extent than in Gaza Strip.

After 1967, West Bank and Gaza Strip were both under Israeli occupation and were controlled by military orders. The military order No. 686 of 1981 has strictly controlled and limited the civil activities and institutions. This has extended up to 1993 and only one month after Oslo agreement and before May 1994, Israel authorities has licensed and registered hundreds of Palestinian NGOs.

After the establishment of the Palestinian Authority, the Legislation Council drafted the Palestinian Law for Charitable and Non-Governmental Organizations, which was finally approved in 2000. The final draft of the law has changed the registration of the NGOs from the Ministry of Justice as suggested by the draft to the Ministry of Interior and National Security.

The Ministry of NGO Affairs was founded to control and manage the affairs of the NGOs and the other civil organizations. Later this ministry was canceled and the department within the Ministry of Interior, which was found based on article 3 of the Palestinian Law for Charitable and Non-Governmental Organizations oversees the registration of these NGOs in cooperation with the authorized ministry, e.g. the registration of social NGOs are to be coordinated with the Ministry of Social Affairs.

As to Article 3 of the Law, the department within the Ministry of Interior registers the NGOs and keeps records of the registration forms, names of founders, the objectives and activities, the financial sources and any other necessary information. Within two months after the full documented application, the Minister of Interior should issue the decision, otherwise the NGO is considered registered.

Several Palestinian NGOs reflect political backgrounds and are supported by political parties. Nevertheless NGOs currently provide more than 60% of all primary health care services, and manage 42% of hospitals, 90% or rehabilitation centers and 95% or pre-school education. They serve thousands engaged in agriculture and other basic services and needs of the Palestinian society. Together, the Palestinian NGO sector employs more than 25 thousand people.

5. PNGO III PROJECT COMPONENTS

The PNGO III project will have there main components: Institutional Development of NDC, NGO Grant Facility, and NGO Sector Development. The following is a brief description of each.

1. Institutional Development: This component supports the establishment of the NGO Development Center (NDC). Its main objective is to support the organizational structure of NDC in providing technical assistance and grants to NGOs for the provision of social services, especially to poor and marginalized communities. It will also support the project's management structure. Three subcomponents; project management, resources mobilization, and monitoring and evaluation are listed under Institutional Development.

2. NGO Grant Facility: The objective of this component is to provide different types of grants, schemes, and tailored capacity building activities to NGOs for social service delivery. Four different grant schemes are envisaged: empowerment grants, mentoring partnerships, NGO-local government partnerships and emergency grants.

   The empowerment grant supports NGOs in providing innovative social service delivery programs identified by poor and marginalized communities. It will provide funding for sector-wide initiatives, or services for enhancing performance and monitoring social service standards. The grant is to build the capacity of NGOs in areas including participatory needs identification, participatory monitoring and evaluation, developing innovative for resources mobilization, developing strong governance systems, etc.

   The mentoring partnership promotes knowledge sharing and networking among NGOs. The mentor will support the partners in strengthening their capacity to improve the qulity and effectiveness of the services. The activities under this subcomponent will cover agricultural activities, youth development, disability, childhood development, adult learning, health services, social protection services, and will support income generation activities.

   The third subcomponent under the NGO grant facility is NGO-local government partnerships, which is to improve social delivery through increased cooperation, coordination and planning between municipalities and local NGOs. This activity is to be implemented in collaboration with the World Bank financed EMSRP II project. Several

activities are to be implemented by this subcomponent covering fields like power conservation, solid waste management, cultural development, recreational and environmental activities. The emergency grants are to support communities impacted by the current economic crisis.

3. **NGO sector development:** The objective of this component is to develop NGOs to be more responsive, transparent and accountable. It is also to enhance their capacity in administrative and service delivery. The capacity building for NGOs will be mainstreamed throughout all the grant programs, emphasizing the need to ensure the transfer of expertise across NGOs at different capacity levels through formal partnerships. The NGO code of conduct will be implemented and coordination and information exchange will be enhanced. The program is also to promote cooperation between NGOs and the private sector.

   The sector development will enforce successful and innovative social service delivery programs and will support longer-term sustainability of critical services to marginalized communities.

6. ENVIRONMENTAL IMPACT ASSESSMENT

6.1 GENERAL

The EIA should aim to promote communication among local officials, developers, community leaders and NGOs about the nature of the proposal and potential impacts on the local environment.

As to the World Bank Environmental assessment criteria, most of the PNGO III projects are classified as either of Category B (grey) or of Category C (white). Such projects have less severe impacts on the society and the environment and do not require detailed EIA. Nevertheless the environmental concerns and likely impacts of the PNGO III subprojects can be considered as follows:

a) General Environmental Concerns During the Construction Phase

These concerns are of a general nature and apply across the board to the different categories of subprojects (education, health, transportation, rural water systems, etc.) during their construction phase. These are usually minor concerns whose negative environmental impacts are not expected to be significant but need careful assessment. The most important of which are:

- Construction and Demolition Wastes
- Risk of damage to archaeological or historical sites
- Risk of destruction of wildlife habitats

b) General Environmental Concerns During the Operation Phase

These are minor environmental concerns that are associated with most of the categories of subprojects, especially education and health. The environmental concerns under this title would include:

- Availability of functioning and maintained sanitation facilities;
- Improper disposal of municipal wastewater; Establishments such as schools or healthcare units disposing their wastewater in percolation pits without conducting as assessment of the surrounding environment to identify its sensitivity and accordingly whether there are potential environmental and/or public health risks.
- Improper management of municipal solid waste generated by the subproject (and other generators in the vicinity). This usually results in the accumulation of municipal wastes on or around the subproject premises/area.

c) Environmental Concerns Specific to Certain Categories of Subprojects

As opposed to the general concerns presented in (a) and (b), which apply to most or all, of the categories of the PNGO III subprojects, the specific concerns apply only to certain categories of the subprojects:

Healthcare Units: Open disposal of infectious waste generated at healthcare units represent a health hazard to the adjacent communities. This is particularly true for children, and the risk is exacerbated due to the relatively low level of hygiene awareness. For subprojects of this type, a simple and safe disposal system needs to be implemented to avoid exposure to this category of waste especially to children.

Roads: This category of subprojects represents an obvious need to the communities it serves. Environmental concerns are limited, the most important of which is the risk of damaging or adversely impacting cultural heritage sites and the risk of clogging of natural drainage channels. However, for this category of subprojects, potential social impacts need to be studied and addressed as well.

It is expected that the traffic density will increase along the new constructed roads and possibly the speed at which vehicles will move. In the absence of precautionary measures (warning signs, speed breakers, etc) passengers as well as the communities through which these roads pass might be at increased risk. In addition to above, there is a risk of increased uncontrolled migration from nearby communities.

d) Environmental Concerns associated with specific subprojects

These are projects of special nature and most probably of a relatively large size as compared to the other common PNGO III subprojects. This category of subprojects might have potential significant environmental impacts and would require a full EIA and careful review. This category includes, but is not limited to:

- Landfill subprojects
- Healthcare Waste Management subprojects serving towns or cities.
- Wastewater systems serving towns and cities (sewerage networks and treatment plants)

6.2 ENVIRONMENTAL ASSESSMENT AND IMPACTS

The PNGO III project will have the three components; institutional development of NDC and strengthening the capacity of Palestinian NGOs through grant facility for social service delivery and through NGO sector development. The second component will cover management and accountability grants and will build the capacity of NGOs in areas such as:

- Participatory needs identification, planning and project implementation
- Participatory monitoring and evaluation
- Enhance the quality and effectiveness of NGOs subsectoral interventions
- Developing innovative and appropriate methods for resources mobilization
- Developing strong governance systems

The second component provides grants to NGOs in areas where they already have comparative advantage through cooperation with local governments and other NGOs. The NGO-local government partnership grants have the objective to improve social service delivery through increased cooperation, coordination and planning between local government units and NGOs. The activities eligible for the grants include:

- Youth development programs; youth centers, educational activities, recreational activities, civic education, psychosocial counseling, etc.
- Cultural development; cultural centers, cultural programs, developing cultural assets and skills, etc.
- Early childhood development; playgrounds, child care, pre-school education, parental education, etc.
- Adult learning; women literacy, etc.
- Technology training; community based internet kiosk, computer literacy, etc.
- Job and vocational training
- Environmental activities, recycling, environmental advocacy and awareness, water conservation.

The partnership grant is to be implemented in collaboration with the World Bank EMSRP II project, which will cover municipal projects in different fields. In addition to addressing emergency needs, EMSRP II also introduced measures to (i) strengthen donor coordination in the sector, (ii) promote greater accountability and public disclosure, as well as local participation, and (iii)

establish an institutional mechanism for central-local resource transfers. The EMSRP II is to cover projects in the fields of water and waste water services, solid waste services, road rehabilitation and maintenance services and electricity services.

The above type of projects will have positive social and environmental impacts. Nevertheless adverse potential impacts may be associated with some of these activities. The potential impacts would be those associated with:

(i) construction of new roads and rehabilitation of existing ones (construction safety, noise, dust, waste material, and vehicular traffic);
(ii) provision of sanitary and electricity services;
(iii) construction of schools and cultural centers; and
(iv) supply and replacement of transformers and electrical panels, electrical cables and poles

The potential adverse impacts would be restricted in scope and severity, such as:

- Dust, noise and odor due to demolition and new construction;
- Dumping demolition and construction wastes and traffic accidental risk, etc;
- Risk of electrical shocks,
- Risk for aesthetic and vegetation;
- Risk for inadequate handling of waste material during construction;
- Risk for road accessibility and health; and
- Risk for cultural and heritage.

Most of the PNGO III are located within towns and local government units in the West Bank and Gaza Strip and in areas under the Palestinian Authority jurisdiction. These areas are confined and are busy with the daily urban activities. Many factors are thus to reduce the above risks and potential impacts. The wind factor for example will decline the gas emissions effects on one hand and will spread the noise and the dusts on the other hand. The environmental management plan prepared in a separate report addresses these impacts and proposes mitigation measures for their protection.

Environmental impacts are different from project to another according to the project type. The following tables are listing of the overall main environmental impacts of the projects based on the different sectors of schools and cultural centers, electricity and power generation projects, water

and wastewater projects, roads and road maintenance projects, solid waste projects and agricultural services projects. The tables list the expected environmental impacts and indicate whether the impact is positive, negative or neutral (no impact). These impacts are judged based on the general information made available at this stage of the project. Later and after detailed information of the projects are provided, these Environmental Evaluation Matrices (EEMs) can be modified.

Table 1A is the EEM of the schools and cultural centers projects. It can be seen that they 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 1A: Main Environmental Impacts due to the Schools and cultural centers projects

No.	Environmental 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	X		
9.	Water Courses and Wadis		X	
10.	Forests and Biodiversity Areas		X	
11.	Aesthetic	X		
12.	Waste Reduction			X

Tables 1B and 1C are the EEMs for the electricity and power conservation projects and for the water and wastewater projects respectively. In general, the electric 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. Also the impacts have different weighting factors. Therefore an Environmental Index (EI) is requested to be estimated, which can be used to list the project as negative or positive. The EI can also be implemented as a selection criteria for the projects of PNGO III.

Table 1B: Overall Main Environmental Impacts due to the electricity and power conservation projects

No.	Environmental 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	X		
10.	Accidental risks			X
11.	Water Courses and Wadis		X	
12.	Forests and Biodiversity Areas		X	
13.	Aesthetic	X		

Table 1C: Overall Main Environmental Impacts due to the Water and Wastewater projects

No.	Environmental 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 and dust Reduction			X
7.	Cultural and Heritage		X	
8.	Socio-economic	X		
9.	Water Courses and Wadis			X
10.	Forests and Biodiversity Areas		X	

The assessment of the water and wastewater projects indicates that the negative aspects are more than the positive. This differs as to the type of project. For water distribution and wastewater

collection systems, less negative impacts are expected in comparison to wastewater treatment type of projects. In any case, mitigation measures are required to reduce the negative and enhance the positive. Other impacts are function of the site of project and can not be determined before identifying the project site.

The road and road maintenance projects may include construction of new roads, rehabilitation of existing ones. It may also include improvement of roads by adding signs, lighting, etc. The EEM for such projects is presented by Table 1D.

Table 1D: Overall Main Environmental Impacts due to the roads and road maintenance projects

No.	Environmental 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	X		
9.	Accidental risks			X
10.	Water Courses and Wadis			X
11.	Forests and Biodiversity Areas			X
12.	Aesthetic	X		
13.	Waste Reduction			X

The air quality will be affected by the gases that will emission form the cars using the roads. Rehabilitation of the road will increase the traffic volume and result noise and dust emission. Accidental risks and workers health and safety will be affected. The water courses and wadis might be affected if the drainage system of the road is changed.

The projects of PNGO III will have awareness programs for solid waste management. Such programs will improve the public health and enhance any waste collection management schemes. On the other hand if sanitary land fill sites are encountered in any of the projects, adverse impacts

on the water resources may occur. The mitigation measures should consider these impacts and propose mitigation measures. Table 1E is the EEM of the solid waste projects. In case other wastes like medical or hazardous are encountered, then the project category will jump to A (Black) and the project will require detailed EIA as the potential adverse impacts will be more.

Table 1E: Overall Main Environmental Impacts due to the Solid Waste projects

No.	Environmental 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.	Cultural and Heritage		X	
8.	Socio-economic			X
9.	Water Courses and Wadis	X		
10.	Forests and Biodiversity Areas		X	

Table 1F: Overall Main Environmental Impacts due to the Agricultural services projects

No.	Environmental 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.	Cultural and Heritage	X		
8.	Socio-economic	X		
9.	Water Courses and Wadis			X
10.	Forests and Biodiversity Areas		X	
11.	Soil			X
12.	Aesthetic	X		

The other projects category that are encountered by PNGO III is the agricultural services projects. These projects have mainly positive impacts as they will support the culture of the Palestinian people and will improve the income to the farmers. Nevertheless, the use of pesticides and/or different types of seeds may affect the soil and water bodies. These have to be considered by the EA of subprojects.

6.3 MITIGATION MEASURES

Environmental mitigation normally includes a matrix identifying the issues, mitigation measures, responsibility for carrying out the mitigation measures and the approximate cost estimates for the action. The environmental matrices in annex 1 of the EMP report are example matrices for the selected project types expected to be implemented by PNGO III. They are addressing several mitigation measures to minimize the risks and negative impacts of the subprojects. The matrices summarize the potential impacts of the different engineering sectors and the required mitigation measures. The implantation of the measures are either during design, construction and/or operation.

6.4 PNGO III SUBPROJECTS SAFEGUARD RISKS

Certain types of small-scale projects can be considered 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 or detailed EMP 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 clauses within the construction and supervision contracts. Some types of subprojects 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 2 provides an illustration of the potential risks associate with the PNGO III subproject.

Table 2: Potential Safeguard risks of PNGO III subprojects

PNGO III 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	

7. ENVIRONMENTAL SCREENING GUIDELINES

7.1 ENVIRONMENTAL AND SOCIAL SAFEGUARDS POLICIES

Under the World Bank's operational policies, there are ten environmental and social policies referred to as the Bank's "safeguard policies". The Bank's environmental assessment policy and procedures in light of these ten safeguard policies are described in OP/BP (Operational Policy/Bank Procedures) 4.01. Table 2 outlines the core requirements under each policy.

The EIA of PNGO III subprojects shall aim at examining the potential negative and positive environmental performance of the projects. The examination and assessment are required to be conducted in light of the World Bank's environmental assessment policy and procedures OP/BP 4.01. Based on the information to be collected of each project, the environmental initial assessment for each subproject is addressed through:

- Reviewing the ten safeguard policies and determining which ones are triggered (if any) by the subprojects. Mitigating measures for each applicable safeguard policy are identified.
- Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts.
- Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area
- Describe measures taken to address safeguard policy issues. Provide an assessment of project proponent capacity to plan and implement the measures described.
- Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The following is a discussion of each of the safeguard policies in relation to the PNGO III projects. Only after getting the details of the projects, it can be figured out if any of the policies are to be triggered or not. Accordingly, the corresponding action and/or mitigation measures are to be taken and applied.

Table 2: World Bank Safeguard Policies and core requirements under each policy

Policy	Summary of Core Requirements	Public Consultation
Environmental Assessment (OP/BP 4.01)	• Screen early for potential impacts and select appropriate instruments to assess, minimize, and mitigate potentially adverse impacts.	• Consult affected groups and non-governmental organizations (NGOs) as early as possible (for Category A and B projects)
Natural Habitats (OP/BP 4.04)	• Do not finance projects that degrade or convert critical habitats. Support projects that affect non-critical habitats only if no alternatives are available and if acceptable mitigation measures are in place.	• Consult local people in planning, designing, and monitoring projects.
Pest Management (OP 4.09)	• Support integrated approaches to pest management. Identify pesticides that may be financed under the project and develop appropriate pest management plan to address risks.	• Consult local people in planning, designing, and monitoring projects.
Involuntary Resettlement (OP/BP 4.12)	• Assist displaced persons in their efforts to improve or at least restore their standards of living.	• Consult project affected persons and host community; incorporate expressed views in resettlement plans; list choices made by project affected persons.
Indigenous Peoples (OD 4.20)	• Identify adverse impacts and develop a plan to address them. Design benefits to reflect the cultural preferences of indigenous peoples.	• Consult indigenous people throughout the project cycle.
Forests (OP/BP 4.36)	• Support sustainable and conservation-oriented forestry.	• Consult local people, the private sector, and interest groups in the forest area.
Safety of Dams (OP/BP 4.37)	• For large dams, technical review and periodic safety inspections by independent dam safety professionals.	• No public consultation required.
Cultural Property (OPN 11.03)	• Investigate and inventory cultural resources potentially affected. Include mitigation measures when there are adverse impacts on physical cultural resources.	• Consult appropriate agencies, NGOs, university departments and residents/stakeholder groups.
Projects in International Waterways (OP/BP 7.50)	• Ascertain whether riparian agreements are in place, and ensure that riparian states are informed of and do not object to project interventions.	• No public consultation required. Riparian notification required.
Projects in Disputed Areas (OP/BP 7.60)	• Ensure that claimants to disputed areas have no objection to proposed project.	• No public consultation required. Claimants informed.

Environmental Assessment (OP/BP 4.01): The World Bank's safeguard system, including Environmental Assessment, is an essential tool for integrating environmental and social concerns into development policies, programs and projects by providing minimum requirements that all Bank-supported operations meet. The safeguard policies of the Bank are operationalizing the "do no harm" approach and are fundamental in meeting the three pillars of the World Bank Environment Strategy:

- Improving the quality of life
- Improving the quality of growth
- Protecting the quality of the regional and global commons

Among the ten World Bank Safeguard Policies, Environmental Assessment (EA), a formal Bank policy since 1989, was the first process to mandate the screening of Bank-funded projects for their environmental and to some extent social impacts.

In this report, the environmental assessment and the potential impacts on the environment due to the different project types expected in PNGO III project have been conducted and identified. The positive versus negative impacts on the different environmental parameters are noted. Based on the assessment, the Environmental Management Plan (EMP) has been formulated and is presented in a separate report. In the EMP, detailed planning matrices clarify the impacts, the mitigation measures, and the responsible actor during design, construction, supervision and operation of the projects, presented sector wise.

Natural Habitats (OP/BP 4.04): Natural habitats are land and water areas where (i) the ecosystems' biological communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the area's primary ecological functions.

All natural habitats have important biological, social, economic, and existence value. Important natural habitats may occur in tropical humid, dry, and cloud forests; temperate and boreal forests; Mediterranean-type shrub lands; natural arid and semi-arid lands; mangrove swamps, coastal marshes, and other wetlands; estuaries; sea grass beds; coral reefs; freshwater lakes and rivers; alpine and sub alpine environments, including herb fields, grasslands, and paramos; and tropical and temperate grasslands.

The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. It is therefore necessary to support the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue. It is essential to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.

In PNGO III project, no natural habitats are to be affected. Most of the projects are to be conducted within the towns and municipal boundaries. The selection criteria of the projects are strict in applying this safeguard policy.

Forests (OP/BP 4.36): Forests is as an area of land of not less than 1.0 hectare with tree crown cover (or equivalent stocking level) of more than 10 percent that have trees with the potential to reach a minimum height of 2 meters at maturity in situ. A forest may consist of either closed forest formations, where trees of various stories and undergrowth cover a high proportion of the ground, or open forest. Young natural stands and all plantations that have yet to reach a crown density of 10% or tree height of 2 meters are included under forest, as are areas normally forming part of the forest areas that are temporarily unstocked due to human intervention such as harvesting or natural causes but that are expected to revert to forest. The definition includes forests dedicated to forest production, protection, multiple uses, or conservation, whether formally recognized or not. The definition excludes areas where other land uses not dependent on tree cover predominate, such as agriculture, grazing or settlements.

The management, conservation, and sustainable development of forest ecosystems and their associated resources are essential for lasting poverty reduction and sustainable development, whether located in countries with abundant forests or in those with depleted or naturally limited forest resources. The objective of this policy is to assist borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.

No forests or vegetation habitats are to be endangered by any of the PNGO III projects; therefore, this safeguard policy is not triggered.

Pest Management (OP 4.09): In assisting borrowers to manage pests that affect either agriculture or public health, the World Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides.

In appraising a project that will involve pest management, it is necessary to assess the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management.

In Palestine, the use of pesticides is not controlled and the capacity to control and manage pest needs enhancement. There are regulations that controls and manage the pests and the use of pesticides, but their enforcement and implementation is still weak.

None of the PNGO III projects is to cause danger to agricultural lands. Therefore, the pest management policy is not triggered by these projects. For agriculture projects, mitigation measures are to prevent and/or control the use of pesticides. In case pesticides may be financed under the project, appropriate pest management plan to address risks is to be developed and PNGO III project is to support integrated approaches to pest management.

Cultural Property (OPN 11.03): The United Nations term "cultural property" includes sites having archeological (prehistoric), paleontological, historical, religious, and unique natural values. Cultural property, therefore, encompasses both remains left by previous human inhabitants (for example, middens, shrines, and battlegrounds) and unique natural environmental features such as canyons and waterfalls. The rapid loss of cultural property in many countries is irreversible and often unnecessary.

No archeological sites are expected to be affected by any of the PNGO III projects. On the other hand, the implementation of the projects in terms of rehabilitation of roads, construction of schools, etc. will enhance the Cultural and Heritage of the societies and will support their cultural properties. It is therefore necessary to consider that culture and heritage are to be positively affected by the PNGO III project activities. The selection criteria of the projects under PNGO III are to reject any project that is to harm archeological sites.

Indigenous Peoples (OD 4.20): This policy contributes to the World Bank's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the

dignity, human rights, economies, and cultures of Indigenous Peoples. For all projects that affect Indigenous Peoples, it is essential to engage in a process of free, prior, and informed consultation that results in broad community support to the project by the affected Indigenous Peoples. The measures to be included are to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. The projects should be designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and intergenerationally inclusive.

The identities and cultures of Indigenous Peoples are inextricably linked to the lands on which they live and the natural resources on which they depend. These distinct circumstances expose Indigenous Peoples to different types of risks and levels of impacts from development projects, including loss of identity, culture, and customary livelihoods, as well as exposure to disease. Gender and intergenerational issues among Indigenous Peoples are also complex. As social groups with identities that are often distinct from dominant groups in their national societies, Indigenous Peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limits their capacity to defend their interests in and rights to lands, territories, and other productive resources, and/or restricts their ability to participate in and benefit from development. At the same time, Indigenous Peoples play a vital role in sustainable development and their rights are increasingly being addressed under both domestic and international law.

No Indigenous peoples are to be negatively affected by the PNGO III projects. On the other hand, PNGO III is considering social and economic aspects related to the beneficiaries. The PNGO III assessments and preparations are covering the socio-economic features of the targeted towns and communities.

Involuntary Resettlement (OP/BP 4.12): The experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.

The types of projects that are covered by PNGO III do not include development projects that may raise risks to the economy, social and/or environment of the Palestinian settlements. Therefore, in no way, involuntary resettlement is expected to occur and this safeguard policy is not triggered by PNGO III.

Safety of Dams (OP/BP 4.37): For the life of any dam, the owner is responsible for ensuring that appropriate measures are taken and sufficient resources are provided for the safety of the dam, irrespective of its funding sources or construction status.

No dams are encountered by the PNGO III projects and this safeguard environmental policy is not triggered.

Projects on International Waterways (OP/BP 7.50): This policy applies to the following types of international waterways:

- any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states;
- any tributary or other body of surface water that is a component of any waterway described in above; and
- any bay, gulf, strait, or channel bounded by two or more states or, if within one state, recognized as a necessary channel of communication between the open sea and other states and any river flowing into such waters.

Also this policy applies to the following types of projects:

- hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial, and similar projects that involve the use or potential pollution of international waterways; and
- detailed design and engineering studies of projects, including those to be carried out by the World Bank as executing agency or in any other capacity.

No international waterways projects are included in the PNGO III subprojects. On the other hand, the drainage of storm water through the natural wadis and the stream courses may be affected by the construction activities and/or the road projects. These impacts and their corresponding mitigation measures are covered by the EMP prepared as part of the environmental assessment of PNGO III. Therefore, this safeguard policy is not triggered.

Projects in Disputed Areas (OP/BP 7.60): Projects in disputed areas may raise a number of delicate problems affecting relations not only between the World Bank and its member countries, but also between the country in which the project is carried out and one or more neighboring countries. In order not to prejudice the position of either the World Bank or the countries concerned, any dispute over an area in which a proposed project is located is dealt with at the earliest possible stages.

All the expected projects under PNGO III are located within towns, communities and local government units in the West Bank and Gaza Strip. The Israeli occupation practices control on the activities in all Palestinian Territories. This political dispute, sometimes, affects the construction works due to closures and checkpoints that limit the free movements of the Palestinians. Projects that are to be constructed in "C" zones as defined by Oslo agreement need special permits. Such obstacles are normally taken care of by the political stakeholders and the joint committees. Therefore, this safeguard policy is considered not triggered and mitigation measures are proposed to be applied to overcome the problems of construction permits and travel complications.

7.2 ENVIRONMENTAL EVALUATION INDEX

Numerous techniques and methods have been developed for evaluating and presenting the effects of proposed and ongoing developmental activities on the Environment. A weighting-scaling Environmental Index (EI) is recommended to be applied to the different types of the subprojects of PNGO III. In this method, the environmental components, which are affected directly or indirectly by the project activities, are figured out for the different types of project activities and are listed in an Environmental Evaluation Matrix (EEM).

Then the EEM is used to evaluate the expected future condition of the environmental quality. The impacts are differentiated using the three terms “Positive, Neutral and Negative”. Only three grades are given to theses impact differentiation, 1 for positive, 0 for neutral and -1 for negative. Weighting factors are assigned to the environmental components differentiating their relative importance as to the particular project. The Environmental Index (EI) is then calculated for the given project indicating a value between -1 and 1 against or for the favor of the project. As a result, the projects are listed as to their priority based on their assigned EI.

As a first step, the EEM is developed for each project. The matrix lists all the environmental components that are expected to be affected by the project activities. Second, the weighting factors, Wi, of the environmental components for the particular project are assigned. The weighting factors are out of 100 and total 100, which will evaluate the relative importance of the environmental components in each project. The Environmental Index (EI) is calculated using the following formula:

$$EI\ (\%) = [\sum Wi_{\text{(for +ve components)}} - \sum Wi_{\text{(for –ve componets)}}]$$

where,

EI : Environmental Index

Wi : Weight Factor of parameter i

The EI is calculated for each project and is used to rank the projects. This environmental evaluation criterion enables the listing of the projects as to their environmental impacts. The EI can thus range from -1 (when all environmental values are negative to 1 (when all environmental values are positive). This is due to the nature of this method as a weighting-scaling checklist that compares between projects and lists them as to their favorite from environmental point of view. Tables 1A to 1F in section 6.2 are examples of the EEM for selected types of subprojects expected by PNGO III.

Table 3: Example for estimating EI for schools and cultural centers projects

No.	Environmental Component	Impact			
		Positive	No Impact	Negative	Wi
13.	Air Quality			X	10
14.	Groundwater Quality		X		5
15.	Community Water Supply		X		5
16.	Public Health and Services	X			10
17.	Workers Health and Safety		X		5
18.	Dust and Noise Reduction			X	20
19.	Cultural and Heritage	X			15
20.	Socio-economic	X			5
21.	Water Courses and Wadis		X		5
22.	Forests and Biodiversity Areas		X		5
23.	Aesthetic	X			10
24.	Waste Reduction			X	5
Grades		+1	0	-1	100

Taking Table 3 as an example and assigning weighing factors (Wi) for the environmental components for schools and cultural centers projects (Table 1A), the value of the Environmental Index (EI) is:

EI= (10+15+5+10) – (10+20+5) = 5% =0.05

The resulting EI of the example is positive which is in favor of the project. The EI is recommend as an environmental criteria for comparing the subprojects of PNGO III and short listing them.

The above is only an example and the weighing factors do not represent the actual relative importance of the environmental components for the school projects of PNGO III. These factors have to be estimated based on the data and information to be made available when the application for the subproject is collected.

7.3 SCREENING GUIDELINES

PNGO II has applied a simplified screening process to identify the likely effects of the activities or projects on the environment. The PNGO II through its policy aimed to fulfill the following goals:

- Identify the constraints that could affect the validity of the project
- Predict the likely environmental impacts of a project
- Identify measures to minimize the impacts and improve the project

PNGO II applied two phases; determine whether the project require a full EIA and define the EIA itself. The first phase was to understand the project, conduct preliminary assessment and scoping. The screening that was applied was simply to check under which of the three categories the project lie. The three categories are defined as: Activities requiring full EA; Activities requires limited analysis; Categorical Exclusion, which require neither IEE nor EA. The second phase defined general requirements of the EIA.

The screening considered emergency and low risk activities not to require environmental review. It only considered high risk activities to require full EA and applied preliminary assessment (IEE) to other activities.

It is clear that the applied screening process by PNGO II is very simple and not comprehensive. It does not allow proper screening of the projects and does not provide a tool to classify the projects and/or to define the level of the EA required.

The prepared EIA and EMP for PNGO III present a detailed assessment of the types of subprojects and activities to be implemented by the project. The following outline the procedure to be applied:

1. During the project application, data and information about the project should determine under which of the three World Bank categories A, B and C the project fall. Some activities may require scoping and/or screening processes as defined by the Palestinian Assessment Policy and by the World Bank OP/BP (Operational Policy/Bank Procedures) 4.01.
2. If any of the 9 safeguard policies, other the first, is triggered by the project, then it is to be dropped regardless if it is emergency or not.
3. Only in case that strict mitigation measures are applied and can stop the triggering of the policies, then the activity may be considered.
4. The categories are to define the level of EA required. The Palestinian assessment policy is to be considered in this regard.
5. The EI is calculated based on the preliminary assessment and during the scoping and screening processes. The EI gives a tool for short-listing the projects. EI is either positive in favor of the project or negative.
6. The EIA and EMP provide tables and formats for use in the assessment of the subprojects of PNGO III.
7. The EMP matrices detail the mitigation measures during the different phases of the project design, construction, and operation.

The EMP presents the environmental criteria for selecting the projects to be covered by PNGO III and give details for administering and monitoring the potential environmental impacts and their mitigation measures. In Section 2.7 of the EMP report, the screening procedure is illustrated via an EMP chart specifying the steps to be applied by the NDC in all stages of project appraisal, project implementation and project operation.

8. ENVIRONMENTAL MANAGEMENT PLAN

Environmental management and procedures are detailed in the EMP prepared as a separate report. The EMP provides highlights of management issues to ensure that project implementation will be according to the recommendation set forth in the feasibility and EIA/EMP studies of the PNGO III.

The objective of the EMP is to cater to the environmental and social needs of the project in a simple, responsive and cost effective manner that will not unnecessarily overload or impede the project cycle. The EMP demonstrates proposed monitoring activities that encompass all major impacts and identify how they will be integrated into project supervision.

In the EMP, the environmental mitigation and monitoring actions are presented in a matrix format. The matrix includes identifying the issues, mitigation measures, and responsibility for carrying out the mitigation measures, environmental monitoring, and responsibility for carrying out the monitoring actions.

9. FINAL REMARKS

The PNGO phase III project is not likely to result in any significant adverse environmental impacts. The majority of the subprojects might only cause limited, both geographically and insignificance, small-scale adverse environmental impacts. However, if not adequately managed from an environmental perspective, the large numbers of subprojects could, over the time, cumulatively affect public health and contribute to a slow degradation of natural resources. In addition, there are a limited number of subprojects, which because of their relatively large size and/or nature might cause significant adverse environmental impacts.

This EIA report is addressing the potential impacts and mitigation measures of the project. It serves as the applicable safeguard document. It provides detailed analysis and assessment of the environmental aspects related to the subprojects and investments of PNGO III. It presents the overall environmental situation, the status of environmental legislation and regulation, the legal status of NGOs in the West Bank and Gaza Strip.