

The National Strategy, Action Programme  
and Integrated Financing Strategy to Combat  
Desertification in the Occupied Palestinian Territory

2011

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# Preface

The Occupied Palestinian Territory (oPt) consists of two geographically separated land masses, the West Bank and Gaza Strip, with a land area of around 6257 km<sup>2</sup> and a population of was 4.17 million inhabitants in mid 2011 ; lies in a strategic, geo-political and geo-economic region in the Middle East.

The oPt has a variety of geographic and climatic conditions that contribute to its biological diversity (flora and fauna). Due to its geographical location, oPt is exposed to frequent drought waves, land degradation and to desertification al most in all areas and in particular in the eastern slopes of the West Bank.

The absence of the political control over the land by the Palestinians due to the severe measures of the Israeli occupation confiscation of land and water, rapid growth of the population and the improper distribution of the population in arid, semi arid and desert lands together with the occurrence of drought and lack of funding have exacerbated land degradation and desertification. Therefore, the Environment Quality Authority (EQA), on behalf of the Palestinian National Authority (PNA) has been authorized to formulate a National Strategy to combat Desertification. The overall objective of the Strategy is to prevent, halt and where possible reverse the effects and impacts of desertification, land degradation and drought, in order to contribute to poverty alleviation, improve livelihoods of people and achieve sustainable development.

The following four strategic objectives have been identified to contribute to achieving the overall objective and other national and sectoral objectives:

To upgrade institutional, legal and human capacities and frameworks and to create the enabling policy environment. As desertification is a multi-disciplinary issue, it is also multi-stakeholder where several institutions are directly or indirectly involved in policy and strategy formulation, planning, finance implementation, monitoring and evaluation of the interventions and actions related to mitigation and combating of desertification, land degradation and drought.

To improve awareness and attitude of stakeholders and to seek maximum participation and partnership

of the affected people and the private sector. The definitions, concepts and approaches related to desertification, land degradation and drought are not known, not clear or confused. The levels of knowledge and awareness differ among different stakeholders. The impacts and consequences in the short, medium and long term at local, national and regional levels are not clearly identified and understood, therefore the efforts and resources needed to deal with them are underestimated. Also, the roles, potentials and responsibilities of different stakeholders and players are not clear, overlapping, contradicting or competing with each other

Due to the alternation of rulers over Palestinian territory during the last century, especially since 1967, Palestinian natural resources conservation and sustainable use have been neglected and they have suffered from being exploited, confiscated, and misused by Israeli occupation authorities. The causes and consequences of desertification in oPt should be dealt with in a holistic and integrated manner. This will include the land, water, vegetative cover and wildlife

To improve mobilization, efficiency and effectiveness of financial and technical resources available to combat desertification, land degradation and drought.

EQA as the national Focal point for the UNCCD has formulated the National Action Programme/ Integrated Financing Strategy (NAP/IFS) to combat desertification and mitigate the effects of drought based on the above mentioned polices and in the framework of the objectives of UNCCD Convention through participatory process in collaboration with relevant stalkholders including governmental, nongovernmental organizations, universities, private sector and public participation

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*Chairman of Environment Quality Authority*

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## Abbreviations and Acronyms:

<b>AIDS:</b>	Acquired Immune Deficiency Syndrome
<b>AOAD:</b>	Arab Organization for Agricultural Development
<b>CDM:</b>	Clean Development Mechanism
<b>COP:</b>	Conference of the Parties
<b>CSD:</b>	Commission on Sustainable Development
<b>CSOs:</b>	Civil Society Organizations
<b>DLDD:</b>	Desertification, Land Degradation and Drought
<b>EQA:</b>	Environment Quality Authority
<b>EU:</b>	European Union
<b>FAO:</b>	Food and Agriculture Organization of the United Nations
<b>FDI:</b>	Foreign Direct Investment
<b>GDP:</b>	Gross Domestic Product
<b>GEF:</b>	Global Environment Facility
<b>GM:</b>	The Global Mechanism
<b>IFAD:</b>	International Fund for Agricultural Development
<b>MCM:</b>	Million Cubic Meters
<b>MDGs:</b>	The Millennium Development Goals
<b>M&amp;E:</b>	Monitoring and Evaluation
<b>MoA:</b>	Ministry of Agriculture
<b>MoF:</b>	Ministry of Finance
<b>NAP – IFS:</b>	National Strategy and Action Plan for Combating Desertification and Integrated Financing Strategy
<b>NCCD:</b>	National Committee for Combating Desertification
<b>NGOs:</b>	Non-Governmental Organizations
<b>oPt:</b>	Occupied Palestinian Territory
<b>PENGO:</b>	Palestinian Environmental Non-Governmental Organizations Network
<b>PIF:</b>	Palestinian Investment Fund
<b>PMU:</b>	Project Management Unit
<b>PNA:</b>	Palestinian National Authority
<b>RAPs:</b>	Regional Action Programmes
<b>REDD:</b>	Reducing Emissions from Deforestation and Forest Degradation
<b>SCCF:</b>	Special Climate Change Fund
<b>SLM:</b>	Sustainable Land Management
<b>SRAPs:</b>	Sub-Regional Action Programmes
<b>TIPOs:</b>	Technical, Institution and Policy Options
<b>UNCBD:</b>	United Nation Convention on Biological Diversity
<b>UNCCD:</b>	United Nation Convention to Combat Desertification
<b>UNCED:</b>	United Nations Conference on Environment and Development
<b>UNDP/PAPP:</b>	United Nations Development Programme/ Programme of Assistance to the Palestinian People
<b>UNEP:</b>	United Nations Environment Programme
<b>UNESCO:</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNFCCC:</b>	United Nations Framework Convention on Climate Change
<b>USA:</b>	The United States of America

## Executive summary

Desertification is not merely removing the fertile soil and creating desert like conditions, but rather a complex problem causing and caused by several inter-related environmental, social, economic and political conditions.

The terms desertification, and land degradation are mostly used interchangeably and closely linked to drought. The UNCCD definition of desertification is:

The land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

The UNCCD definition of desertification applies to most areas in oPt, despite the fact that records to measure and monitor desertification and land degradation trends and magnitude are lacking. The degradation of natural resources in countries with similar conditions such as Lebanon and Tunisia is estimated at 1.2% and 0.7% of their GDP.

The causes, effects and consequences of desertification are not easy to delineate in the oPt. The causes may be summarized in the following major categories:

### 1. Unsustainable management of resources and inputs such as

- Over grazing of rangelands
- Over pumping of ground water
- Improper farming and irrigation practices and systems
- Excessive application of fertilizers and chemicals
- Deforestation, forest fires and fire wood collection
- Urbanization, mining and change in land use patterns

### 1. Socio-economic factors including

- Land tenure, fragmentation and common title
- Fluctuating and soaring prices (inputs and outputs)
- Trade regimes
- Weak participation of private sector
- Poverty and food insecurity
- Extraction of sand in the coastal area, and quarries in the West Bank

### 1. Institutional and legal factors including

- Lack, weakness and weak enforcement of legislation
- Weak institutional capacities and capabilities of public, NGOs, CSOs or private sector and weak coordination mechanisms among them
- Weak services and service delivery systems to stakeholders, mainly herders and farmers
- Weak participation of different stakeholders in the decision-taking decision-making processes
- Lack of information and appropriate data
- Lack of proper awareness and appreciation among the people, media, legislators and decision makers
- Low interest and budget allocation from PNA and international communities to issues related to combating desertification
- Lack of proper national policies, strategies and commitments to combating desertification and applying the proper incentives, policy tools and instruments
- Weak regional cooperation
- Ambiguity and overlap over responsibilities

## 1. Natural factors including

- Climate change and weather factors
- Population growth and pressure

## 1. Israeli occupation related factors represented by

- Control over natural resources
- Confiscation of land and water
- Israeli settlements, military camps and by-pass road
- The separation wall
- Division of oPt into A,B,C areas
- Restrictions on movement of individuals, trade and services
- Additional margins on inputs costs and outputs prices
- Bulldozing of agricultural lands and uprooting of trees

While the major effects and consequences of desertification, land degradation and drought in the oPt are:

- Increased soil erosion and loss
- Decrease in soil productivity and fertility
- Decrease and deterioration of biomass, biodiversity and endangering flora and fauna
- Contribution to and increasing negative impacts of climate change
- Increased rain water runoff, accordingly contributing to flooding
- Less food production and increased food insecurity, mainly in marginal areas and among vulnerable groups
- Less income and more costs of economic activities, mainly livestock and agriculture
- Fewer jobs, increased poverty and immigration
- Increased financial and security burdens on the nation and government

This strategy, NAP and IFS build on and are framed by relevant national and sectoral strategies and plans such as: Environment Sector Strategy, Agriculture Sector Strategy, Social Protection Strategy, Climate Change Adaptation Strategy and Ending Occupation, Establishing the State Programme.

While it is aligned and in harmony with the following international conventions, among others:

UNCCD and its 10 year strategic plan 2008-2018, UNCBD, UNFCCC, Agenda 21 and MDGs.

The following assumptions and enabling environment are required to either be assumed by, or materialize to, ensuring success and sustainability of the measures and results of NAP/IFS:

- PNA commitment and support to combating desertification
- Major improvements in the political situation
- Peoples participation and ownership all through the process
- Commitment to good governance
- Clear definition of tasks, responsibilities and division of labor of different institutions and actors involved
- PNA and international community will allocate proper resources to finance and promote the activities and objective of the NAP and IFS

In light of the above, the overall objective of the strategy is:

To prevent, halt and where possible reverse the effects and impacts of desertification, land degradation and drought, in order to contribute to poverty alleviation, improve livelihoods of people and achieve sustainable development.

The strategic objectives of the strategy and NAP programmes and interventions have been identified, as summarized in the following matrix

Strategic Objectives	Programmes	Interventions	
1.To upgrade institutional, legal and human capacities and frameworks and to create the enabling policy environment	1.1 Institutional support programme	1.1.1 Assessment and identification of institutions needs	
		1.1.2 Improving the institutional capacities and performance	
	1.2 Harmonization and reform of the regulatory framework programme	1.2.1 Review and assessment of the present laws and regulations	
		1.2.2 Development and amendment of the legal and regulatory framework governing mitigation and combating desertification, land degradation and drought	
	1.3 Human resource development programme	1.3.1 Conduct a resource gap analysis and human resource development plans for the institutions dealing directly with mitigation and combating desertification, land degradation and drought	
		1.3.2 Implementation of the human resource development plan for different institutions and in different fields	
		1.3.3 Assign and select certain national, regional and international institution to deliver training and conclude cooperative agreements with them	
	2.To improve awareness and attitude of the stakeholders and to seek maximum participation and partnership of the affected people and the private sector	2.1 Awareness raising programme	2.1.1 Raising the awareness of politicians, decision makers, governors and judges
			2.1.2 Raising the awareness of local communities
2.1.3 Raising awareness of the general public			
2.2 Enhancement of the participation of stakeholders mainly, of the affected communities and private sector programme		2.2.1 Involvement of local communities and affected groups in all aspects of design, implementation, M&E and adjustments of projects, plans, policies and strategies	
		2.2.2 Improvement of private sector participation	
3.Conservation and sustainable use of natural resources	3.1 Preparation of studies, data and maps related to mitigation and combating desertification, land degradation and drought Programme	3.1.1 Preparation of data, maps and surveys	
		3.1.2 Preparation of desertification, soil survey, land use and suitability maps and studies for the hot spots and endangered areas	
		3.1.3 Preparation of local area development plans for the hotspots and endangered areas (income generation, job creation, social services and infrastructure)	
	3.2 Restoration and rehabilitation of hotspots and endangered areas programme	3.2.1 Development of optimal water harvesting, water collection and soil conservation measures	
		3.2.2 Development of rangeland restoration and rehabilitation	
		3.2.3 Small ruminant development	
		3.2.4 Land reclamation	
	4.To improve mobilization, efficiency and effectiveness of financial and technical resources	4.1 Resources mobilization for the mitigation and combating desertification, land degradation and drought programme	4.1.1 Establishment of pressure and lobbying groups
4.1.2 Promotion of new and innovation funding mechanisms			
4.2 Efficient management and use of financial resources Programme		4.2.1 Establishment of a working sub-groups	
		4.2.2 Launch a fund raising campaign	

The IFS for combating desertification in oPt identified the potential internal and external financing sources and recommended key policy recommendations to be adopted in order to make available the necessary fund. In addition innovative and new financing sources whether national or international have been identified such as, the Adaptation Fund for the UNFCCC, SCCF, CDM. REDD at the international level while Zaka Fund, Ministry of Religions Affairs (Waqf) and PIF are potential national innovative sources.

Realizing that several PNA institutions have already developed their own programmes, interventions and projects as part of their strategies and action plans 2011-2013. The following projects that are complementary and of high priority where EQA will be the lead agency in partnership with other related institutions are suggested

	Project title	Duration month	Budget (1'000)US\$	Potential partners
1	A study on Assessment and Enhancement of the Capacities of Institutions dealing with Desertification, Land Degradation and Drought	6 month	50	MoA, MOPAD, PENGON
2	Raising Awareness of Stakeholders about Desertification, Land Degradation and Drought Issues	6 Months	100	MoA, NGOs, Private Sector
3	Establishment of Desertification and Drought Data Base and Monitoring System	24 months	2,000	MoA, PCBS, MoPAD, NGOs, CSOs.
4	Preparation of Studies and Maps for the Hotspots and Endangered Areas	24 month	1,000	MoA, Private sector and NGOs
5	Transfer of Indigenous Knowledge and Appropriate Technologies Related to Desertification and Drought.	24 month	1,000	MoA, NARC, NGOs
Total:			4,150	

The overall supervision and coordination responsibilities will be within NCCD. EQA will coordinate NAP/IFS activities with other national and international institutions and conventions. MoA, as the major implementer will align the agricultural strategies and plans with NAP/IFS. At the same time, MoPAD will coordinate with other sectoral and national strategies, plans and foreign assistance. For each programme/project, a management unit will be established and a detailed document will be prepared.

Technical monitoring and assessment of the magnitude, trends and impact of desertification and drought in addition to M&E for the programmes/projects will be established. Reporting to line ministries and institution and donors will take place periodically and according to special formats and procedures as required by the relevant institutions.

In order to ensure smooth implementation after the formulation of NAP/IFS, the next steps and the way forward are suggested below:

- Approval and endorsement of NAP/IFS
- Sharing the NAP/IFS with UNCCD, GM, GEF and other international and regional institutions
- Establishment of sub-sector working group for desertification and drought
- Preparation of T.O.Rs and detailed project documents
- Hold National Conference on desertification and drought
- Conduct fund raising campaigns
- Implement the proposed high priority (fast track) projects



# 1. Introduction

Desertification is not merely removing of fertile soil and creating desert like conditions, but rather a complex problem caused by several inter-related environmental, social, economic and political factors. In past decades, and mainly due to human interventions and unsustainable practices, desertification has occurred at alarming rates resulting in reduction of land productivity, and accordingly, decrease in income and livelihoods of immediate stakeholders. Small farmers, Bedouins and rural poor have been affected most. There has also been medium and long-term impact at micro, macro, national, sub-regional and regional levels.

Since the United Nations Conference on Desertification, which was held in Nairobi, Kenya in 1977, desertification has been recognized as a world-wide problem and threat accelerated by human activities and interventions.

The United Nation Convention to Combat Desertification (UNCCD) is the only legally binding international convention addressing the desertification issue. It entered into force on 26 December 1996, three months after being ratified by fifty countries. As of February 2010, the number of countries ratifying the convention is 193.

Despite the fact that Palestine is not a signatory to the UNCCD, its commitment to the objectives and obligations of the UNCCD is very well evidenced and demonstrated in several national, macro and sectoral policies and strategies. PNA is well aware of the threats and heavy cost that desertification, land degradation and drought impose on the environment, economy, food security and livelihoods of people. Within this context and upon request of the PNA/ EQA, the Global Mechanism of the UNCCD (GM) is financing through the United Nations Development Programme/ Programme of Assistance to the Palestinian People (UNDP/PAPP) the formulation of a National Strategy and Action Plan and Integrated Financing Strategy (NAP-IFS) for Combating Desertification. The formulated strategy, action program and IFS are in line with the context of 10 years strategic plan of UNCCD taking into consideration that IFS is a facilitative important tool which leads to Integrated Investment Framework (IIF) for SLM that aim at leveraging national, bilateral and multilateral resources.

## 1. Mandate, objectives and requirements of UNCCD

The convention consists of six parts, four annexes and four regional implementation annexes, one of them being for Asia continent to which Palestine belongs.

The overall objective of the convention is to combat desertification and to mitigate effects of drought in drylands. It addresses the need to tackle the multiple-interrelated causes and effects of desertification, land degradation and drought in an integrated and sustainable manner.

Achieving the convention's objectives will involve long-term integrated strategies that focus simultaneously on i) affected areas; ii) improved productivity of land; and iii) the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.

The convention identifies the following major principles and guidelines for the Parties to achieve the objectives:

1. The Parties should ensure that decisions on the design and implementation of programmes to combat desertification and/or mitigate the effects of drought are taken with the participation of the population and local communities, and that an enabling environment is created at higher levels to facilitate action at national and local levels;
2. The Parties should, in a spirit of international solidarity and partnership, improve cooperation and coordination at sub-regional, regional and international levels, and better focus financial, human, organizational and technical resources where they are needed;
3. The Parties should develop, in a spirit of partnership, cooperation among all levels of government, communities, non-governmental organizations and landholders to establish a better understanding of the nature and value of land and scarce water resources in affected areas and to work towards their sustainable use; and
4. The Parties should take into full consideration the special needs and circumstances of affected developing country Parties, particularly the least developed among them.

**Among the major parts of the convention are the obligations of the affected developing countries, including:**

1. Give due priority to combating desertification and mitigating the effects of drought, and allocate adequate resources in accordance with their circumstances and capabilities;
2. Establish strategies and priorities, within the framework of sustainable development plans and/or policies, to combat desertification and mitigate the effects of drought;
3. Address the underlying causes of desertification and pay special attention to the socio-economic factors contributing to desertification processes;
4. Promote awareness and facilitate the participation of local population, particularly women and youth, with the support of non-governmental organizations, in efforts to combat desertification and mitigate the effects of drought; and
5. Provide an enabling environment by strengthening, as appropriate, relevant existing legislation and, where they do not exist, enacting new laws and establishing long-term policies and action programmes

The preparation of a National Action Programme (NAP) to combat desertification and mitigate the effects of drought is among the most important obligations of the affected developing country parties.

## **2. Justification and need for the NAP and IFS**

Articles 4, 5 and 6 of the convention include several guiding principles and obligations to be followed and applied while preparing the strategies. Section 1 (articles 9-15) of Part III details the basic approach, national action programmes, sub-regional and regional action programmes, international cooperation, support for the action programme and coordination in the elaboration and implementation of action programmes.

As stated in the basic approach for the action programmes, the affected country parties in the framework of its regional implementation annex or, otherwise, that have notified the permanent secretariat in writing of their intention to prepare a national action plan shall as appropriate, prepare, make public and implement national action programmes, utilizing and building, to the extent possible, on existing relevant successful plans and programmes, and sub-regional and regional action programmes, as the central element of the strategy to combat desertification and mitigate the effects of drought. Such programmes shall be updated through a continuing participatory process on the basis of lessons from field action, as well as the results of research. The preparation of national action programmes shall be closely interlinked with other efforts to formulate national policies for sustainable development.



**The objectives of the Strategic Action Plan and Integrating Financing Strategy (IFS) for oPt are:**

1. To respond to the challenges, threats and constraints related to land degradation, desertification and drought in oPt, by formulating and endorsing a unified national document to serve as a basis and guiding framework for future national and sectoral policies and plans
2. To guide PNA and International Assistance Agencies to efficiently and effectively channel and use their resources to combat desertification and mitigate the effects of drought
3. To reflect the importance, priority and commitment that PNA is giving to the issues related to desertification, land degradation and drought and to comply with UNCCD obligations and requirements

Commitments to create the enabling environment and requirements for the successful implementation of the NAP will not only be demonstrated by adopting the legal and institutional requirements, but also by allocating and making available the needed internal, external and innovative sources of funding to implement the NAP and its priority interventions. This should be coordinated and harmonized at the national, regional and international levels and among public, NGOs, CSOs and private sector stakeholders.

The Integrated Financing Strategy is a process-oriented approach, which was designed by the Global Mechanism (GM) of the UNCCD; it constitutes an integral part and logical response to adoption of the 10-year Strategic Plan and Framework to Enhance the Implementation of the Convention (2008-2018).

IFS means to create an enabling environment for mobilizing resources to the affected developing parties, built on a thorough analysis of the internal and external environments, and lessons learned. In addition to developing the proper strategies to maximize the benefits of the strengths and opportunities, and to minimize the negative effects

and impacts of the weaknesses and threats currently facing or which might face relevant institutions and stakeholders who would actively participate in the process for IFS formulation, implementation, monitoring and evaluation.

Resource mobilization, public-private partnerships, and linkages between trade, livelihoods of the affected people, and the sustainable management of resources in the dry areas, are issues of paramount importance and need to be highlighted while developing the IFS.

### 3, Methodology and approach

The NAP/IFS was prepared in close coordination and consultations with all stakeholders, and in an active participatory manner including NGOs, CSOs, public and private sectors at all levels.

The procedures and steps applied during the formulation process comprised:

1. A core team consisting of the team leader, coordinator from EQA and representative of UNDP/ PAPP was established to assure smooth implementation, deliver technical support and advice to thematic groups and follow work progress on a day-to-day basis. The core team met mostly on a weekly basis, most meetings being attended by additional senior staff from EQA, (Annex 1)
  2. Reviewed and compiled available reports, studies and data, which were then distributed to the members of the thematic groups (Annex 2)
  3. Conducted the first meeting of the National Desertification committee (NDC) established through a decree issued by the Prime Minister.
  4. Establishment of five thematic groups consisting of professionals representing different actors in the related subject matters. For each group a coordinator and a secretary were assigned (Annex 3)
- Each group produced a detailed report; the five reports were presented and discussed in one-day workshop attended by professionals and representatives of relevant institutions (Annex 4)
5. In addition, four regional workshops were held with wide participation of the stakeholders in each region as follows:

**Table 1: Numbers, location and date of NAP/IFS workshops held in oPt**

Place	Date	Coverage	No. of participants
Jenin	21/12/2010	Jenin, Nablus, Tulkarm, Qalqilia and Salfit	47
Jericho	22/12/2010	Jericho, Jerusalem, Ramallah and Tubas	55
Hebron	9/1/2011	Hebron and Bethlehem	120
Gaza	13/1/2011	Gaza, North Gaza, Deir Al Balah, Khan Younis and Rafah	17

The major purpose of the workshops was to inform the participants on NAP/IFS and seek their contributions through applying SWOT analysis. Annex 5 includes the reports of the workshops.



Figure 1: Participation of local people on the decision-making is the core element of NAP in Hebron governorate

6. In light of the above, the first NAP/ IFS draft was prepared and delivered to UNDP on 23/3/2011
7. A validation workshop was conducted to discuss the draft report on 6/4/2011
8. NCCD discussed the final draft and comments were raised in 15/6/2011
9. The final report submitted to UNDP on 30/6/2011

## 2. Country Context

### 2.1. Natural resources and factors

#### 2.1.1. Land resources

The oPt is part of Arab World, Middle East, Western Asia, Southern and Eastern Mediterranean. It has an area of around 6257 km<sup>2</sup>, out of which around 378 km<sup>2</sup> comprises the Gaza Strip while the rest constitutes the area of West Bank. oPt have five distinct agro-ecological zones <sup>1</sup> which are:

1. The Jordan Valley with a total area of around 400 km<sup>2</sup> located at the eastern parts of the West Bank, with an altitude of 90m *above* sea level to - 395m *below* sea level, characterized by having semi-tropical conditions, and a rainfall range of between 100-200 mm/year. The Jordan Valley is an intensive-production agricultural area, and is witnessing diversification in agricultural production from citrus and banana to date palm, grapes, herbs and vegetables.
2. The Eastern Slopes: these extend from the eastern parts of Jenin to Hebron in the south. It is between 10-20 km wide, while its area is approximately 1,500 km<sup>2</sup>. This zone is transitional between the Central Highlands and the Jordan Valley, with altitudes varying from 0-800 meters above sea level. Severe slope, low rainfall (150-300 mm annually) and reduced plant cover, due to overgrazing, characterize the area. This zone is classified as semi-arid or desert. The main economic activity, with the exception of agriculture practiced in the small parts that are irrigated with spring water, is the grazing of livestock.
3. The Central Highlands: This zone is characterized by being mountainous and hilly and constitutes the largest part of the West Bank; it extends along the West Bank with a total length of around 120 km and with 50 km width. Its altitude ranges between 400-1,020m above sea level. Rainfall varies from 300mm in the south to 600 mm in the north. The soil is of Terra Rosa type with low fertility, low water holding capacity, containing high soluble salts and a low content of organic matter. Olive, stone fruits, field crops, vegetables and fodder are the major crops planted in this zone, mostly as rainfed crops. Soil erosion is a major problem especially in the bare and uncultivated lands.
4. The semi coastal zone: This is a narrow strip of 60 km length and 2-12 km width. It is the smallest area, and has an altitude of 100-300m above sea level. The rainfall ranges between 400-700 mm. The soil of this zone is medium textured and of alluvial origin, is deep and sedimented with a high clay content. Major cultivated crops are olives, stone fruits, field crops and vegetables.
5. The Coastal Zone (Gaza Strip): This zone located totally in Gaza Strip. Its latitude is around 40m above sea level, and the rainfall varies between 200-400 mm. Despite the presence of sand dunes with widths ranging between 1.5 km -5 km, intensive agriculture is the dominant cropping pattern; main products are vegetables, cut flowers, citrus, almonds, dates and guava.

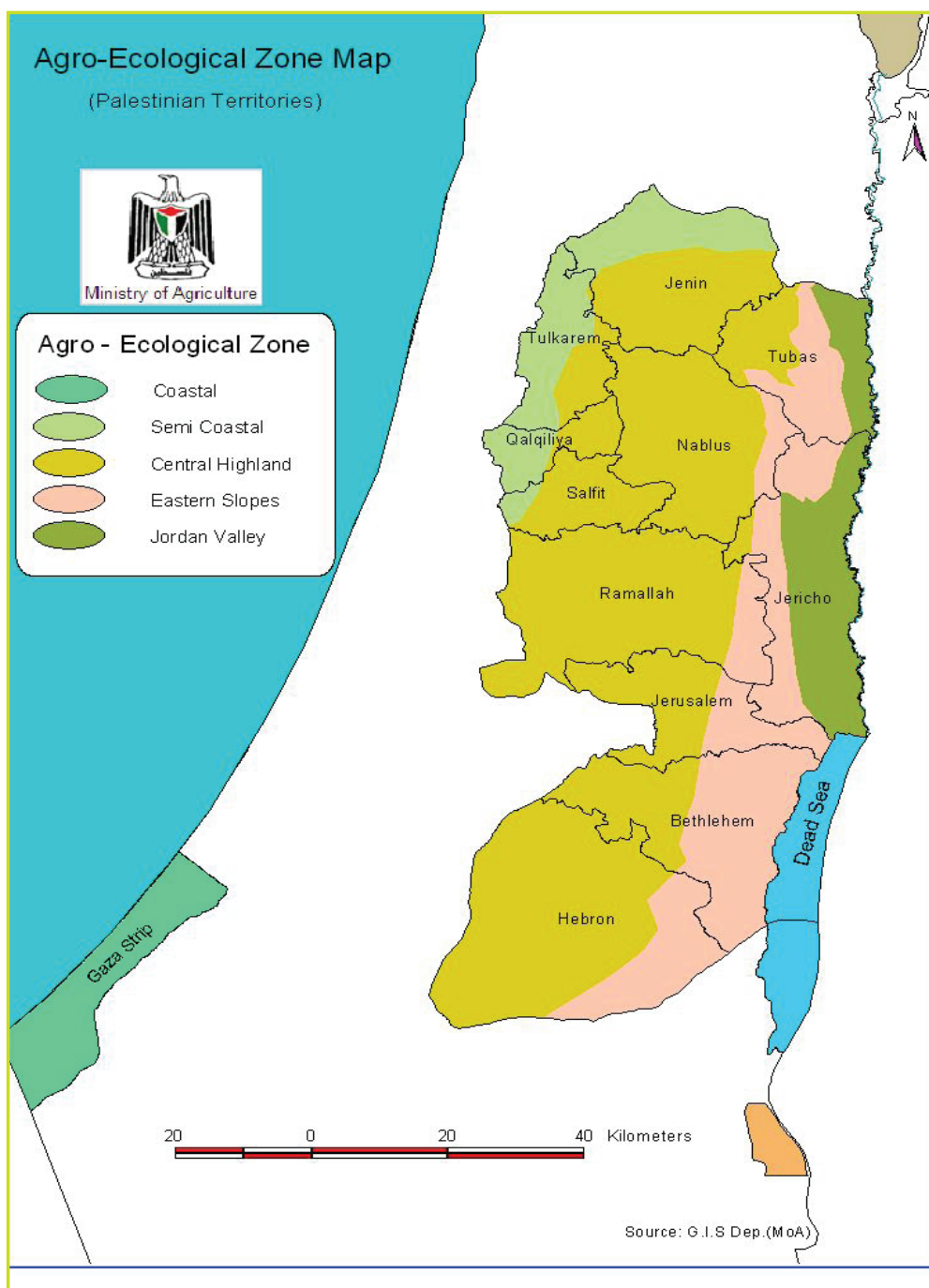


Figure 2: Agro-ecological zones in oPt

Arable land area in oPt is estimated at around 2,560 km<sup>2</sup> or 42.5% of the total area, while rangeland constitutes around 12.5%. Annually planted areas in 2008 were as shown in Table 2, while the Table 3 shows land use in oPt.

**Table 2: Agricultural production system and areas (dunum) in oPt/ 2008**

	West Bank			Gaza			oPt
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Total
Vegetables	108,317	31,628	<b>139,945</b>	43,399	2,832	<b>46,231</b>	<b>186,176</b>
Olives and Fruit trees	24,836	1,087,723	<b>1,112,559</b>	50,809	9,019	<b>59,828</b>	<b>1,172,387</b>
Field crops	15,000	426,183	<b>441,183</b>	21,205	32,945	<b>54,150</b>	<b>495,333</b>
<b>Total</b>	<b>148,153</b>	<b>1,545,534</b>	<b>1,693,687</b>	<b>115,413</b>	<b>44,796</b>	<b>160,209</b>	<b>1,853,896</b>

PCBS/ Agricultural Report/ 2009

**Table 3: Land use in oPt**

Land use	West Bank area (km <sup>2</sup> )	% of the total area	Gaza Strip area (km <sup>2</sup> )	% of the total area	Total area (km <sup>2</sup> )
Arable lands	2361.3	42.5	197.9	54.5	<b>2559.2</b>
Rangelands	753.7	12.5	-	-	<b>753.7</b>
Forests and wooden areas	78.9	1.3	-	-	<b>78.9</b>
Private plant cover lands	213.8	3.7	7.6	2.1	<b>221.4</b>
Open spaces with little or no vegetation	1693.6	29.3	71.4	19.7	<b>1765</b>
Palestinian Built-up Area	314.2	6.6	82.3	22.7	<b>396.5</b>
Israeli settlements and separation wall	244.3	4.1	-	-	<b>244.3</b>
Land that had been evacuated by the Israeli occupation	-	0	2.7	0.7	<b>2.7</b>
Internal water	1.3	0	0.9	0.3	<b>2.2</b>
<b>Total</b>	<b>5661.1</b>	<b>100</b>	<b>362.8</b>	<b>100</b>	<b>6023.9</b>

Source: ARIJ 2006

The total number of sheep and goats is around 1.011 million head, 37% is raised in Hebron and Bethlehem governorates, under extensive raising depending most of the year on grazing.

### 2.1.2. Water resources

The oPt is among the water-scarcest areas in the world. Most Palestinian water is confiscated illegally by Israel. Total water used annually in the oPt is around 335 MCM, nearly equally distributed between West Bank and Gaza Strip. 45% or 150 MCM of the total water is used in agriculture out of which 70 MCM is used in the West Bank, and 80 MCM used for agricultural purposes in Gaza Strip.

Ground water is the major source of water, the volume of annual renewable ground water resources in the West Bank is 669 MCM and the yearly surface water flow is estimated at an average of 110 MCM, while the annual renewable ground water is estimated at 45

MCM in the Gaza Strip. Palestinians actually get no benefit from this, nor from Palestinian rights to water in the Jordan Valley which amount to 250 MCM, it<sup>2</sup>.

### 2.1.3. Biodiversity and biological resources

Despite its small area, Palestine is very rich in biodiversity and considered as a center of wild plant biodiversity. The biodiversity and desertification are interrelated and closely linked. Biodiversity resources including flora and fauna contribute directly to combating desertification. In addition, the biodiversity of flora and fauna participate effectively in countering the destruction and soil erosion wrought by wind, through soil fixation and enrichment.



There are about 47,000 species known in Palestine. Such rich biota comprises an estimated 2,750 species of plants of 138 families. The total area of nature reserves in the oPt is about 774 km<sup>2</sup>, some 12.8% of the total area of the oPt<sup>3</sup>. The natural ecosystems and biodiversity in Palestine provide ecosystem services and support for human activities in agriculture, animal husbandry, forestry, traditional and pharmaceutical health products, tourism, and many other activities. These systems are essential also for their aesthetic and intrinsic value, and for the stabilizing effect of ecosystems and the protection of overall environmental quality. Sustainability of agricultural production and environmental balance depends on the maintenance of a diverse natural biota<sup>4</sup>.

## 2.2. Socio-economic structures

### 2.2.1. Population and demography

According to PCBS, the total estimated number for population was 4.17 million inhabitants in mid 2011, out of which 2.58 million (62%) live in the West Bank, while 1.59 million (38%) live in the Gaza Strip. The number of males slightly exceeds the numbers of females, 2.06 million males compared with 1.99 million females.

The urban population constituted 73.7% while rural and refugee camps population constituted 17% and 9.3% respectively.

Hebron governorate has the biggest population in the oPt of around 600 thousand inhabitants while Gaza governorate has the biggest population in Gaza Strip of around 535 thousand inhabitants. Jericho and Rafah are the least populated governorates in the West Bank and Gaza Strip with 45 and 189 thousand inhabitants respectively. Annual population growth rate is around 2.9%, this being mainly due to the high fertility rates and decrease in death rates. It is expected that the present fertility rate will last for the coming five years<sup>5</sup>.

Population density is relatively high in the West Bank but it is considered very high in Gaza; estimated at 444 person/km<sup>2</sup> in the West Bank, 4,206 person/ km<sup>2</sup> in Gaza and 672 person/ km<sup>2</sup> across the oPt.

### 2.2.2. Administrative and local governance system

oPt consists of two major parts, West Bank and Gaza Strip, which are geographically separated. Administratively, oPt consists of 16 governorates,

11 in the West Bank and 5 in the Gaza Strip. A governor appointed by the President of PNA runs each governorate; he is the highest ranking officer in the governorate and represents the President in the governorate. Moreover, there are around 485 local government units, their councils and chairs being elected directly by the people.

Tribal relations still exist among people mainly in the eastern and southern parts, which are mostly affected by desertification, tribal leaders (sheikhs) playing important social roles within their communities.

### 2.2.3. Economic and social development

Palestinians are well-known within the region, as pioneers and promoters of education and agriculture. The total GDP was US\$ 6,108.2 million in 2008, and the income per capita was US\$ 1,698.3 in the same year<sup>6</sup>. Services are the biggest sector contributing to around 23% of the GDP. The poverty rate is very high in Gaza Strip, reaching 33.2%, while it was 15.5 % in the West Bank in 2009. Poverty and desertification are closely linked and affected by each other, as poverty is a cause of over and misuse of the land, which leads to desertification and land degradation, which in turn leads to low production and ultimately less income and poverty, especially for marginalized groups. The unemployment rates were 40.5%, 20.1% and 26.6% in the Gaza Strip, West Bank and oPt respectively. Unemployment rates were higher among women (32.6%) than men (25.4%). The value of agricultural production is estimated at around US\$ 1.37 billion, its contribution to GDP being 5.6 % in 2008. There were around 101 thousand agricultural holdings in oPt, around 70% of them are crop holdings, 7.3% are livestock holdings and 23.2% are mixed holdings. The agricultural sector is a major employer and contributor to food security. Agricultural practices contribute positively to mitigation and combating desertification, land degradation and drought if carefully managed. Conversely, mismanaged farms and malpractices can be harmful to the environment.

As most of the areas in oPt are not under the control of PNA, several distortions in the trade regime and prices occurs, with direct negative impact on the economy.

Solar energy is commonly used in residences, especially for water heating, while wood and plant by-products are still used especially among the rural, poor and Bedouins. It is estimated that renewable energy constitutes 18% of the total energy used in oPt<sup>7</sup>. As people grow and their incomes improve,

3 ARIJ 2007

4 Biodiversity T.G Report/ 2011

5 Socio-economic T.G Report/ Feb. 2011

6 National Accounts Report/ March 2010/ PCBS

7 Socio-economic T.G Report/ Feb. 2011

the use of transportation increases. In 2009 there were around 124 thousand vehicles in oPt while the total length of roads was around 5,600 km, out of which around 460 km was not paved. Opening and construction of roads constitute a major threat and contributor to desertification, as it involves the movement/ removal of large amounts of soil.

## 2.3. Institutional and legal framework

### 2.3.1. Public institutions

Several public institutions are directly or indirectly involved in the planning, finance, implementation, and monitoring and evaluation of issues and activities related to mitigation and combating desertification, land degradation and drought. A review of the involved institutions and their relevant roles is given below:

#### 1. Prime Minister's Office (Cabinet)

Among its tasks and responsibilities are the following:

- Approval and endorsement of policies, strategies, plans and agreements
- Coordination and harmonization among different public institutions
- Recommendation to the President and the Parliament for approval of laws, budgets and promotion of senior staff
- Approval of organizational structures of PNA institutions

#### 2. The National Committee for Combating Desertification(NCCD)

It was established by a decree issued by the Prime Minister on March 2010. The Ministry of Agriculture chairs it while EQA is the deputy chair. In addition to other eight public institutions, two universities, the Palestinian Environmental Non Governmental Organizations Network and five representatives from the private sector form the membership. NCCD major tasks and responsibilities are:

- Formulation and approval of policies, strategies, plans, programmes and special financing mechanisms to combat desertification
- Recommendation to the cabinet on national, regional and international projects and agreements relevant to combating desertification
- Coordination between public, private and NGO institutions to create an enabling environment in the field of combating desertification
- Inclusion and integration of the National Strategy to Combat Desertification in the National Development Plan, in the short and long term
- Proposing legislation related to combating desertification to the cabinet

The first meeting of NCCD was conducted shortly after starting the preparation of NAP on 30/11/2010, to launch the process and approve the concepts and the inception report.

#### 3. Environment Quality Authority (EQA)

The roles of EQA are:

- Preparation and recommendation of draft laws, regulations and by-laws to the cabinet
- Formulation and recommendation to the cabinet of strategies, plans, programmes and agreements in consultation and cooperation with other institutions and stakeholders
- Control and monitoring of the state of environment, and protecting the environment from aggression and misuse
- Implementation of certain interventions
- Conduct awareness and education campaigns of the public
- National focal point for UNCCD

A special department to combat desertification exists in EQA, it having two divisions, one for soil and other for desertification.

#### 4. Ministry of Agriculture (MoA)

MoA is the major implementer of projects related to desertification in the oPt. Several projects related to land reclamation; rangeland development, soil and water conservation and harvesting, afforestation, natural resources and biodiversity are implemented through the MoA. In addition, MoA is in charge of the delivery of extension and veterinary services, applied research and technology transfer. MoA also chairs the NCCD. There is a special section to combat desertification within the natural resources department in the MoA.

#### Other public Ministries and institutions with certain tasks of relevance to desertification, such as:

- Ministry of Finance: budget allocation, control and audit
- Ministry of Planning and Administration Development: national and macro plans and donors' aid coordination
- Ministry of National Economy: import, export and mining licenses
- Ministry of Interior: control, protection, policing and enforcement of laws
- Ministry of Education and Higher Education: integrating environmental programmes in the schools curricula
- Ministry of Local Government: cities and villages planning

- Ministry of Information : raising awareness, information and knowledge dissemination
- Palestinian Water Authority: management, planning, regulation of water resources and projects
- Palestinian Energy Authority: rationalization of energy use and promotion of alternative energy sources
- Palestinian Lands Authority; land management, registration system and protection of public lands
- Universities and research centers: under- and post-graduate programmes, training and research
- Item 7 of article 2 stipulates that combating desertification is one of MoA responsibilities in coordination with other parties.
- Article 10 prohibits moving or transfer of soil for purposes other than for reclamation and improvement of lands
- Article 11 imposes restrictions on building and fragmentation of agricultural lands

#### Palestinian Environment Law No. 7, 1999

This law didn't define desertification, but article 1 defines soil movement as the removal of part of the soil.

- Article 17 states that in order to combat desertification and halt soil erosion, the Ministry of Environment in coordination and cooperation with MoA and other concerned institutions may take the necessary actions to plant the fallow lands
- Article 18 prohibits removal of soil and transfer of the soil for purposes other than agriculture, to improve its fertility or for building purposes
- Article 78 identifies penalties and punishments

Other articles in the above mentioned laws are related to nature protection, wild and marine life, biodiversity, forest, range lands and hunting

#### Cities, Villages and Building Law No. 79, 1966

- Article 40 prohibits cutting of trees and flowers, and emphasizes measures for the protection of forest lands, parks and recreational lands, and requires replacement of any trees that were cut from forest areas

In addition to this, other laws, such as Natural Resources Law No.1, 1999 and the Free Industrial Zones and Cities Law No. 10, 1998 and the bylaws, regulations and instructions derived from them include relevant articles to mitigation and combating desertification, land degradation and drought.

### 2.3.2. NGOs, CSOs, tribal and local organizations

According to the official statistics there are around 40 Palestinian NGOs and CSOs working in fields related to environment, in addition to a similar number working in agriculture<sup>8</sup>. Their objectives range from research, planning extension and awareness, education, services delivery, project implementation, governance support to marginalized groups, commodity boards, training in addition to other relevant subject matters and issues. Private sector involvement in mitigation and combating desertification, land degradation and drought is minimal. Some NGOs are very active and have gained credibility over the past three decades, mainly in applied research and projects implementation.

### 2.3.3. Legal and regulatory framework

Desertification, land degradation and drought are issues of great importance and relevance to the environment and agriculture, so most legal articles are included in both the environment and agriculture laws. The Palestinian basic law (constitution) in article (33) states that environment protection is a national responsibility and all segments of society shall shoulder such responsibility. The same article (33) states that a clean and balanced environment is a human right. In addition, article (77) of the Environment law number 7 of 1999 states that the international laws of which the PLO/ PNA is a partner, member or signatory are considered an integral part of Palestinian law.

Some relevant articles to desertification in agriculture, environment and cities, villages and building laws are listed below:

#### Agriculture Law No. 2, 2003

- Article 2 identifies desertification as the decrease in productive value of land use due to climate change and human activities.



## 3. Desertification in oPt

### 3.1. Definitions and status

Desertification and land degradation are mostly used interchangeably and closely linked to drought. They have direct negative impacts on the wellbeing and livelihoods of people, in addition to other consequences at the national, regional and international level.

#### Definitions related to desertification as adopted by UNCCD:

**“Desertification”** is the land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities;

**“Combating desertification”** includes activities, which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development which are aimed at:

- Prevention and/or reduction of land degradation;
- Rehabilitation of partly degraded land; and
- Reclamation of desertified land;

**“Drought”** means the naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affects land resource production systems;

**“Mitigating the effects of drought”** means activities related to the prediction of drought and intended to reduce the vulnerability of society and natural systems to drought as it relates to combating desertification;

**“Land”** is the terrestrial bio-productive system that comprises soil, vegetation, other biota, and the ecological and hydrological processes that operate within the system;

**“Land degradation”** is the reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns, such as:

- Soil erosion caused by wind and/or water;
- Deterioration of the physical, chemical and biological or economic properties of soil; and
- Long-term loss of natural vegetation

The UNCCD definition of desertification applies to most areas in oPt. The degrees of desertified and threatened areas are not well or exactly defined due to the lack of data and records to measure and monitor land degradation and desertification. Accordingly, their impacts and costs are mostly descriptive, roughly estimated and qualitative, which do not give the real picture on the status and impacts at micro and macro levels. According to the Arab Organization for Agricultural Development Study, the desert area in the historical Palestine is 8500 km<sup>2</sup> of the total area, while the endangered area is estimated at 4.480 km<sup>2</sup>.<sup>9</sup>

### 3.2. Analysis of causes, consequences and impacts

**CAUSES:** The main causes of desertification have been incorporated in the definition of desertification i.e. climatic variation and human activities. Yet, there are other physical, biological, political, social, cultural and economic factors that interact together causing desertification and land degradation.

The cause-effect relations in case of desertification are not easy to delineate, and in many cases they are in a kind of vicious cycle link, such as the case of overgrazing - do herders over-use the rangeland because they are poor and can't afford to buy fodder, or are they poor because the range land carrying capacity has become limited?



Figure 3: Sever soil erosion and overgrazing in the eastern slopes

The major causes of desertification in oPt, concluded mainly from the discussions and results of the regional workshops and the report on desertification<sup>10</sup> are:

#### 1. Unsustainable management of resources and inputs

This is well demonstrated and practiced by

- Over grazing of rangelands
- Over pumping of ground water
- Improper farming and irrigation practices and systems
- Excessive application of fertilizers and chemicals
- Deforestation, forest fire and fire wood collection
- Urbanization, mining and change in land use patterns



Figure 4: land degradation in the eastern slopes around Israeli Occupation bypass roads in oPt

## 2. Socio-economic factors

- Land tenure, fragmentation and common title
- Fluctuating and soaring prices (inputs and outputs)
- Trade regimes
- Weak participation of private sector
- Poverty and food insecurity
- Extraction of sand in the coastal area, and quarries in the West Bank

## 3. Institutional and legal

- Lack, weakness and weak enforcement of legislation
- Weak institutional capacities and capabilities of public, NGOs, CSOs or private sector and weak coordination mechanisms among them
- Weak services and service delivery systems to stakeholders, mainly herders and farmers
- Weak participation of different stakeholders in the decision-taking decision-making processes
- Lack of information and appropriate data
- Lack of proper awareness and appreciation among the people, media, legislators and decision makers
- Low interest and budget allocation from PNA and international community to issues related to combating desertification
- Lack of proper national policies, strategies and commitments to combating desertification and applying the proper incentives, policy tools and instruments
- Weak regional cooperation
- Ambiguity and overlap over responsibilities

## 4. Natural factors

- Climate change and weather factors
- Population growth and pressure

## 5. Israeli occupation related factors

- Control over natural resources
- Confiscation of land and water

- Israeli settlements, military camps and by-pass roads
- The separation wall
- Division of oPt into A,B,C areas
- Restrictions on movement of individuals, trade and services
- Additional margins on input costs and output prices
- Bulldozing of agricultural lands and uprooting of trees



Figure 5 : Israeli Separation and annexation wall in oPt

**Consequences and impact:** Despite the fact that it is difficult to quantify the impacts and consequences of desertification, land degradation and drought, figures from other similar countries such as Lebanon and Tunisia estimated the costs of the coastal zone, land resources and wildlife degradation at 1.1-1.45 percent and 0.65-0.95 percent of the GDP in Lebanon and Tunisia respectively.<sup>11</sup>

Within the Palestinian context, the major consequences and impact of desertification, land degradation and drought are the following:

- Increased soil erosion and loss
- Decrease in soil fertility and productivity
- Decrease and deterioration of biomass, biodiversity and endangering flora and fauna
- Contribution to and increasing negative impacts of climate change
- Increased rain water runoff, accordingly contributing to flooding
- Less food and feed production and increased food insecurity mainly in marginal areas and among vulnerable groups
- Less income and more costs of economic activities mainly livestock and agriculture
- Fewer jobs, increased poverty, and immigration

Increased financial and security burdens on the nation and government



Figure 6: Vegetative cover degradation and flooding areas in the eastern slopes

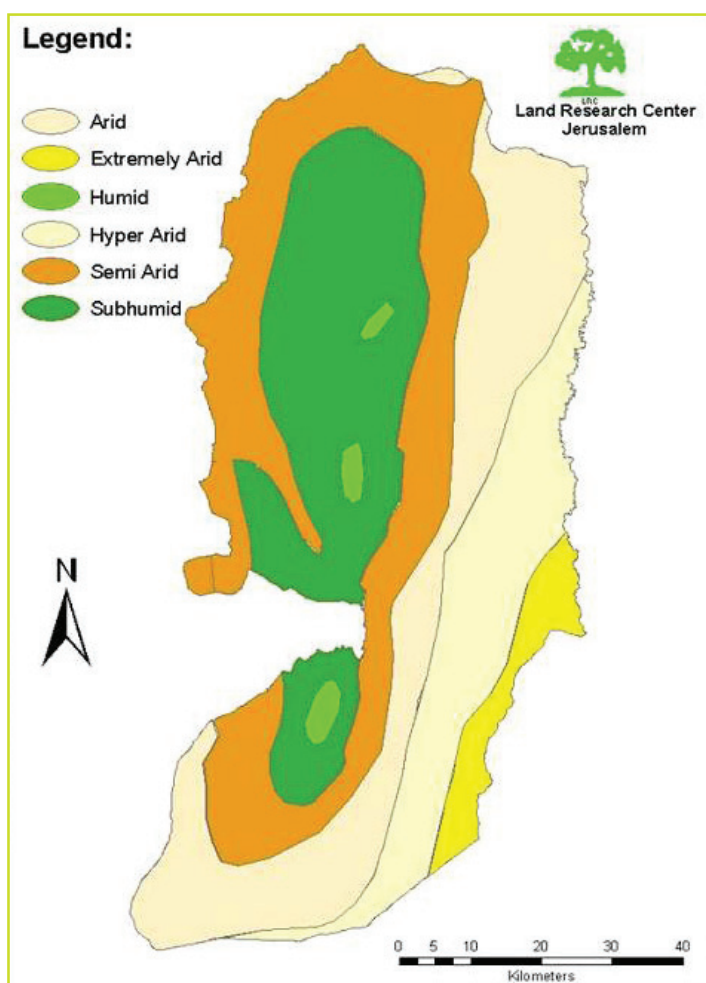


Figure 7: Aridity index of the West Bank, 1998



### 3.3. Review and analysis of relevant national policies and strategies

Since its establishment in 1994, PNA has formulated several environmental and agricultural policies and strategies tackling desertification and land degradation issues. A summary and review of the most recent policies and strategies are given below:

#### 1. Environmental Sector Strategy (2010)

The strategy was prepared as one of 23 sectoral and cross-sectoral strategies to serve as the basis for establishing the Palestinian state and as a guiding framework for the preparation of the National Development Plan 2011-2013.

One of the six strategic objectives and priorities of the strategy is of direct relevance to desertification and land degradation. It states, "All needed actions to cope with climate change, combating desertification, environmental and natural catastrophes are taken". For the strategic objective to be achieved, the following five major interventions were identified:

1. Formulation of the National Strategy to Combat Desertification (NAP) and its Integrated Financing Strategy (IFS)
2. Implementation of the NAP
3. Developing rangeland management and rehabilitation plan
4. Planting additional land
5. Preparation of a plan for reclamation and rehabilitation of areas affected by erosion

Total requested budget for the five interventions over the three years is around US\$(110) million.

#### 2. The Agricultural Sector Strategy (shared vision) (2010)

The agricultural sector strategy was prepared within the same context and in line with the 23 national sectoral and cross-sectoral strategies.

Seven strategic objectives and priorities have been identified for the agricultural sector, and for each strategic objective several policies have been proposed to ensure the proper implementation of the strategy.

In this regard, two strategic objectives are of relevance to desertification and land degradation:

1. Effective and sustainable management of agricultural resources which include the following interventions:
  - 1.1. Increase water availability and improve supply management
  - 1.2. Improve demand management of agricultural water

1.3. Sustainable use, increasing the area, reclaiming the land and sustainable use of agricultural biodiversity, which will materialise through applying the following interventions:

- Identify, classify and reclaim lands and enhance productivity
- Afforest government and privately-owned land
- Develop and rehabilitate rangeland
- Conserve and sustainably use agricultural biodiversity

2. Establishment of agricultural infrastructure and delivery of appropriate agricultural services

1.2 Create an investment-enabling environment and promote investment in the agricultural sector and relevant services

- a. Develop feasibility studies on agricultural investment
- b. Provide investment incentives

2.2. Upgrade extension services, plant protection, veterinary medicine and agricultural research

2.3. Invigorate activities of lending, rural finance and agricultural insurance

2.4. Develop mechanisms to cope with natural disasters

Identify and adopt mechanisms for early warning and coping with agricultural disasters

#### 3. Social Protection Strategy

This strategy was prepared in the same context of the environmental and agricultural strategies.

Chapter six of the strategy identifies five strategic objectives. Of relevance to desertification and drought is:

Strategic objective one:

"Reduction of poverty burden and severity on Palestinians" following are the suggested interventions of relevance under this strategic objective:

- Making resources available to promote home agriculture and gardens among the poor
- Providing small loans and grants to poor families to establish effective projects
- Encouraging private sector to invest in projects and fields to support the poor

#### 4. The Climate Change Adaptation Strategy and Programme of Action for the Palestinian Authority (2009)

The strategy and programme of action were formulated in 2009, including *inter alia*;

- Identification of key adaptation needs for oPt
- Identification of adaptation measures
- Provision of recommendations for mainstreaming climate change adaptation in oPt

It has identified no-regrets and low-regrets adaptation measures as priority intervention. In this regard, the following measures of relevance to desertification, land degradation and drought are:

1. Development of flood contingency plans
2. Local increases in rainfall interception capacity
3. Incorporate climate risks
4. Increase use of brackish water and treated wastewater use
5. Increase use of water harvesting
6. Protection of coastal sand dunes in the Gaza Strip
7. Incorporation of climate adaptation in land use planning
8. Greater use of precision agriculture for improved soil and crop management
9. Crop and ruminant selections for more tolerance to heat and drought

#### 5. Ending Occupation, Establishment the State:

This document outlines the 13<sup>th</sup> government programme for a vital stage of Palestinian history i.e. building the state. Several statements and objectives have been included in this document with relation to desertification and land degradation, such as:

- Upgrading and advancing the international relations between Palestine and other countries and international institutions. In addition, the government will seek to gain full membership in international organizations
- Supporting private sector role to actively participate in the developmental process
- Development and optimal utilization of natural resources
- Creation of a centralized and computerized land data base and to identify and register state-owned lands
- Develop policies for the use of state lands

### 3.4. Review and analysis of relevant international policies and strategies

It should be clearly addressed that Rio Conventions namely, UNCCD, UNFCCC and UNCBD are interrelated and had many linkages and cross cutting themes.

Developing a national strategy and action program with this background in mind - in which different interventions are designed targeting more than one specific target- is considered a new and creative approach. Rio conventions are financed by different mechanisms and instruments in which accessing these resources will be an important approach that helps in executing the implementation of the action program.

#### 1. The Convention on Biological Diversity (UNCBD):

The Convention on Biological Diversity entered into force on 29 December 1993, which was 90 days after the 30th ratification. It remained open for signature until 4 June 1993, by which time it had received 168 signatures. The first session of the Conference of the Parties was scheduled for 28 November – 9 December 1994 in the Bahamas.

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding of direct relevance to desertification is:

Article (8):

(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies;

Handbook of the convention on biological diversity/ 3<sup>rd</sup> edition 2005

Consideration of article 8(f) by the COP:

“Recognizing the interlinkages between biodiversity, desertification/land degradation and climate change, requests the Executive Secretary, in collaboration with the secretariats of relevant conventions, to prepare a proposal for the development of a mechanism to coordinate activities in these areas, and for linking and ensuring integration of the national biodiversity strategies and action plans under the Convention on Biological Diversity and the national action programmes under the Convention to Combat Desertification”

#### 2. UNFCCC:

The Convention on Climate Change, which entered in to force on 21 March 1994 sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate

system is a shared resource, the stability of which can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases.

Under the Convention, governments shall:

- gather and share information on greenhouse gas emissions, national policies and best practices
- launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries
- cooperate in preparing for adaptation to the impacts of climate change

### 3. Agenda 21

Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations

of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment.

Agenda 21, the Rio Declaration on Environment and Development, and the Statement of Principles for the Sustainable Management of Forests were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3 to 14 June 1992.

The Commission on Sustainable Development (CSD) was created in December 1992 to ensure effective follow-up of UNCED, to monitor and report on implementation of the agreements at the local, national, regional and international levels. The following programme areas are relevant to desertification, and were mentioned in Conservation & Management of Resources for Development Section in Combating Desertification & Drought Chapter:

#### Programme areas as mentioned in combating desertification and drought chapter

1. Strengthening the knowledge base and developing information and monitoring systems for regions prone to desertification and drought, including the economic and social aspects of these ecosystems;
2. Combating land degradation through, inter alia, intensified soil conservation, afforestation and reforestation activities;
3. Developing and strengthening integrated development programmes for the eradication of poverty and promotion of alternative livelihood systems in areas prone to desertification;
4. Developing comprehensive anti-desertification programmes and integrating them into national development plans and national environmental planning;
5. Developing comprehensive drought preparedness and drought-relief schemes, including self-help arrangements, for drought-prone areas and designing programmes to cope with environmental refugees;
6. Encouraging and promoting popular participation and environmental education, focusing on desertification control and management of the effects of drought.

### 4. MDGs:

The Millennium Development Goals (MDGs) are eight international development goals that 192 United Nations member states and at least 23 international organizations have agreed to achieve by the year 2015. They include eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality rates, improving maternal health, fighting disease epidemics such as AIDS, and developing a global partnership for development. Ensuring environmental sustainability was also mentioned in Goal 7, and contains the following targets of direct relevant to desertification, land degradation and drought:

1. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

1. Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss

### 3.5. Alignment and synergies with UNCCD and other UN conventions

In addition to the need to align and harmonize NAP/IFS with the national strategies and objectives of relevance, it should also comply and ensure synergies with the UN conventions and frameworks, mainly UNCCD, CBD and UNFCCC.

Due attention should be given to socio-economic, institutional, technical and environmental aspect within the frame of efficiency, transparency and sustainability.

The 10-years strategic plan 2008-2018 of UNCCD will serve as the guideline and general framework for NAP/IFS, with the following strategic and operational objectives.

The strategic objectives:

- To improve the living conditions of affected populations
- To improve the condition of affected ecosystems
- To generate global benefits through effective implementation of the UNCCD
- To mobilize resources to support implementation of the convention through building effective partnerships between national and international actors

The operational objectives:

- Advocacy, awareness raising and education
- Policy framework
- Science, technology and knowledge
- Capacity – building
- Financing and technology transfer

### **3.6. Past and ongoing interventions to combat desertification in oPt**

Several projects and interventions have been implemented/ conducted since the establishment of the Palestinian National Authority (PNA), covering a wide range of subjects including policy, strategies and plans formulations, natural resource management, institutional and governance, awareness raising, services and infrastructure, surveys and studies.

Annex (6) includes a list of the previous and ongoing projects and interventions in the field of relevance.



## 4. The Strategy

These strategies build on and is framed by the Palestinian relevant national and sectoral strategies and plans, aligned and in harmony with the international conventions, and benefiting from experiences and lessons learned within oPt, at regional level and elsewhere.

### 4.1. Assumptions, guiding principles and enabling environment

For the strategy to be realistic, responsive and sustainable, the following assumptions, guiding principles and enabling environment are required to either be assumed or materialize before, during or after the implementation of the NAP and IFS:

- PNA commitment and support to combating desertification as a national priority and as an integral part of the natural resource management and socio-economic development of the country, including poverty alleviation, food security, income generation and job creation
- Palestinians are embarking on a major historical move towards ending the occupation and establishing the state. This requires major improvements in the political situation. In addition, the required legal and institutional frameworks need to be in place, and readiness to join and adhere to UNCCD and other relevant conventions and organizations
- People's participation and ownership all through the process of NAP/ IFS formulation, implementation and M&E are prerequisites for the success and sustainability of combating desertification. This includes all relevant stakeholders at national, sub-regional, regional and international levels
- Commitment to good governance in terms of decentralization, democracy, transparency and accountability. Herders and farmers' organizations should be strengthened to properly and sustainably manage their own resources
- Clear definition of tasks, responsibilities and division of labor of different institutions and actors involved. Cooperation, work modalities and procedures need to be institutionalized

- PNA and international community will give due attention to, allocate the proper resources to and will align with IFS principles and requirements, including partnering with the private sector in cost sharing

### 4.2. Strategic objectives and expected impacts

Strategy overall objective:

Decades of neglect, unbalanced actions and interventions without due consideration to sustainable and wise use of resources resulted in various degrees of desertification and land degradation. Unfortunately, some of the damage and impacts are irreversible, while others can be halted or even reversed. At the same time, efforts should be exerted to prevent and avoid further desertification and land degradation by applying the proper techniques and measures, and by minimizing the causes of desertification and their impact. Furthermore, as drought is closely linked, affecting and affected by desertification and climate change, it should be dealt with as integral part of desertification and land degradation. In light of that, the overall objective of the NAP will be:

To prevent, halt and where possible reverse the effects and impacts of desertification, land degradation and drought, in order to contribute to poverty alleviation, improve livelihoods of people, conserve natural resources and achieve sustainable development.

The strategic objectives:

The following four strategic objectives have been identified to contribute to achieving the overall objective and other national and sectoral objectives:

**To upgrade institutional, legal and human capacities and frameworks and to create the enabling policy environment.** As desertification is a multi-disciplinary issue, it is also multi-stakeholder where several institutions are directly or indirectly

involved in policy and strategy formulation, planning, finance implementation, monitoring and evaluation of the interventions and actions relating to mitigation and combating of desertification, land degradation and drought, as explained in section 2.3.

**To improve awareness and attitude of stakeholders and to seek maximum participation and partnership of the affected people and the private sector.** The definitions, concepts and approaches related to desertification, land degradation and drought are not known, not clear or confused. The levels of knowledge and awareness differ among different stakeholders. The impacts and consequences in the short, medium and long term at local, national and regional levels are not appreciated. Accordingly, the efforts and resources needed to deal with them are underestimated. Also, the roles, potentials and responsibilities of different stakeholders and players are not clear, overlapping, contradicting or competing with each other

**Conservation and sustainable use of natural resources** - due to the alternation of rulers over Palestinian territories over the last century, especially since 1967, Palestinian natural resources have suffered from being exploited, confiscated, unsustainably and mis-used by Israeli occupation authorities. Chapter 3 addresses the causes and consequences of desertification in oPt that should be dealt with in a holistic and integrated manner. This will include the land, water, vegetative cover and wildlife

**To improve mobilization, efficiency and effectiveness of financial and technical resources** available to combat desertification, land degradation and drought.

## 5. Integrated Financing Strategy

### 5.1. Background

In the light of recent worldwide crises, changes and developments, new approaches and strategies are required to support resource mobilization for Sustainable Land Management (SLM). The Integrated Financing Strategy (IFS) was developed by the Global Mechanism, with the ultimate goal of creating the enabling environment for mobilizing internal, external and innovative resources to provide an investment framework for SLM. The IFS, NAP and the national strategic objectives are integral parts of the PNA strategic framework, whilst also being fully in line with the 10-year Strategic Plan (2008-2018) for the implementation of UNCCD.

In order for IFS to be meaningful and appropriate, it should:

- be country led and nationally owned;
- built on existing strategies and processes, particularly NAP; and
- based on comprehensive and reliable analysis<sup>1</sup>

IFS should also be flexible, responsive, multi-disciplinary and multi-stakeholder. Its success depends on effective partnership building and mainstreaming of SLM, to make rural development and land management a major national development priority that contribute directly to achieving the national objectives, mainly in tackling poverty, achieving food security and improving livelihoods of people.

In this regard, NAP and IFS were formulated through active participation of all relevant national stakeholders, by being members of the NCCD and members in the five thematic groups that were established to deal with the major subject matters

related to desertification as mentioned in chapter (1). At the same time the existing national strategies and processes, in addition to the international conventions and protocols were reviewed and considered while developing the IFS. The relation between NAP and IFS is very close, as both have been developed together, unlike other countries that developed the NAP first then formulated the IFS as a separate document, so, both NAP and IFS are fully integrated.

IFS consist of three key elements:

- examining the environment for SLM financing;
- identifying potential financing sources, instruments and mechanisms; and
- designing enabling measures for resource mobilization

### 5.2 The environment for SLM financing

Issues and measures related to SLM are not dealt with as one comprehensive programme or through a single unit in oPt; rather they are dealt with as separate activities implemented by several institutions whether public, NGOs, CSOs, and private sector. An overall umbrella and oversight mechanisms only existed recently by establishing the NCCD which is not functioning in its full capacity and has not yet established the processes and procedures for its work.

Presently, there are (127) projects either ongoing or recently completed projects tackling issues of relevance to desertification, land degradation and drought in oPt. Their total budget is around US\$ (86) million as listed in annex (7). The following table (4) summarizes the projects per sector, donor, implementing agency and budget.

**Table 4: Projects summary**

Sector	No. of Projects	Donors	Implementing Agencies	Total Budget US\$
Land use	11	Representative Office of the Kingdom of the Netherlands to the PA, EU, FAO, Canadian International Development Agency, Consulat General de France, Spanish Cooperation	PARC, Agency for Technical Cooperation and Development, Unity and Cooperation for Development of peoples, International Committee of the Red Cross, Asamblea de Cooperacion por la Paz, CARE International, UAWC	13,336,408
<b>Livestock</b>	23	EU, Spanish Cooperation, FAO, Italian Cooperation, Office for the Coordination of Humanitarian Affairs, EC, Middle East - Regional Agricultural Programme Phase II RCO, AOAD, Australian Agency for International Development, USAID, Swedish International Development Cooperation Agency, DanChurch Aid	Agency for Technical Cooperation and Development, FAO, Unity and Cooperation for Development of peoples, Action Against Hunger – Spain, CRIC - Centro Regionale Di Intervento Per La Cooperazione, Asamblea de Cooperacion por la Paz, MoA, AOAD, CARE International, World Vision International, ARIJ, MAAN Development Center, Juhoud for Community & Rural Development	12,604,928
<b>Water harvesting/ storage</b>	15	ECHO, Spanish Cooperation	Action Against Hunger – Spain, Asamblea de Cooperacion por la Paz, Gruppo Di Volontariato Civile- Italy, Comitato Internazionale per lo Sviluppo dei Popoli	7,724,748
<b>Water management</b>	49	Spanish Cooperation, Government of Japan, Australian Agency for International Development, FAO, Italian Cooperation, Swedish International Development Cooperation Agency, ECHO, USAID, Islamic Relief Worldwide - Palestine Office	United Nations Children Fund, UNDP/ PAPP, Asamblea de Cooperacion por la Paz, Unity and Cooperation for Development of peoples, International Committee of the Red Cross, FAO, AVSI, ARIJ, MAAN Development Center, Gruppo Di Volontariato Civile- Italy, Palestinian Water Authority, Action Against Hunger – Spain, Premiere Urgence, Comitato Internazionale per lo Sviluppo dei Popoli, Islamic Relief Worldwide - Palestine Office	33,000,243

<b>Plant production and irrigation</b>	29	Australian Agency for International Development, Middle East Regional Cooperation Programme, Office for the Coordination of Humanitarian Affairs, Spanish Cooperation, Norwegian Agency of Development Cooperation, Mennonite Central Committee, EC, ECHO, AOAD, Canadian International Development Agency, USAID,	CARE International, PARC, FAO, Asamblea de Cooperacion por la Paz, International Committee of the Red Cross, ARIJ, CRIC - Centro Regionale Di Intervento Per La Cooperazione, Agency for Technical Cooperation and Development, MoA, AOAD, MAAN Development Center, PARC	20,003,808
<b>Total</b>	<b>127</b>			<b>86,670,135</b>

### 5.3. Potential financing sources

Financing sources can be categorized into three categories:

#### 5.3.1. Internal financing

Sizable share of PNA budget comes from international sources. This is mainly due to the political circumstances governing the situation in oPt. The major internal budget source for combating desertification, land degradation and drought is the national budget, which is allocated yearly. The national budget is a result of a process that is supervised and managed by the Ministry of Finance. All ministries and autonomous departments request their yearly budget according to a certain modality and template issued by MoF, consisting of two parts. The first is the operational budget, which includes salaries, rents, running cost...etc, and the second part is the development budget that covers the financing of project, programmes and other developmental activities.

The Ministry of Agriculture and the Environment Quality Authority are the two major Palestinian institutions dealing directly with issues of relevance to sustainable land management in general and to desertification, land degradation and drought issues in particular.

The developmental budget share is very limited and does not normally exceed 20% of the total budget. It is mostly allocated per budget item (project).

The Ministry of Planning and Administrative Development is in charge of planning and coordination, including budgeting of projects and plans and coordination of foreign finance.

The yearly budget proposals are discussed between each line ministry and the Ministry of Finance. After that, the MoF sends the draft budget to the cabinet for endorsement, and thereafter to the Palestinian Legislative Council for approval as a law of the budget.

Local government units and private sector are not funding any activities of direct relevance to combating desertification, land degradation and drought, except the farmers' investments in agricultural activities and practices, as agriculture production in oPt rests in the hands of the private sector.

In this regard following are the key policy recommendations:

- PNA should ensure proper management and coordination of funds allocated within different Palestinian institutions
- PNA should adopt the enabling environment that attracts and promotes investment in issues of relevance including tax incentives, subsidies and partnership with private sector
- Local government units should consider desertification and land degradation issues while they develop their plans and intervention. This will include training, awareness raising, incentives and development of regional land use plans
- PNA should ask the donor community and international agencies to place desertification, land degradation and drought high on their agendas and strategies
- PNA should adjust and link certain initiatives such as the Guards of the Earth and Green Palestine to serve and match the strategy and NAP objectives

- Palestinian Investment Fund (PIF), Zaka fund, mining industry and other companies who invest and deal with agriculture and natural resources should support and adopt sustainable land management measures and practices, and avoid negative impacts on natural resources and environment
- Open dialogue with relevant stakeholders on benefiting from and accessing funding mechanisms
- Donors should consider matching-funding and sharing with Palestinian private sector and Palestinian Funds in support of sustainable land management
- Donors should use debt swap mechanism to promote and finance sustainable land management interventions
- Non official development assistance such as Foreign Direct Investment (FDI), private foreign investment, NGOs and CSOs should be explored and accessed

### 5.3.2. External financing sources

As mentioned earlier, PNA depends heavily on foreign support to its budget, in addition to the technical assistance provided in terms of project support to different sectors, including water and land reclamation. Major funding sources active in these fields are the World Bank, EU, IFAD, USA, Netherlands, Germany, Japan, Italy, Canada and Denmark. UNDP, FAO, GM and UNESCO are the UN agencies involved in natural resources. In addition, several foreign NGOs are involved, together with CSOs.

In addition to the bilateral coordination between the foreign institutions and Palestinian institutions, the Local Aid Coordination Secretariat (LACS) and its local development forum, four strategy groups and sector working groups, are the coordination mechanisms of technical assistance and foreign support. Of direct relevance are the water, agriculture and environment sector working groups. Each sector-working group consists of local and foreign institutions and co chaired by national and foreign institutions.

Prioritization of budget allocation and donors support is a function of donors' own strategies and policies, national and macro policies and sectoral strategies and policies

As Palestine is not yet a member state of the United Nations, accessing certain funds is either not possible or difficult. The key policy recommendations relevant to external financing sources are listed below:

- Within the Palestinian context land and water are of vital importance, so donors and international agencies should give protection, sustainable use and management of natural resources high priority
- Access to land and water is heavily constrained by measures enforced by Israeli occupation authorities. Donors and International agencies should support PNA efforts to master its full authority using its own resources
- As desertification, land degradation and drought are closely linked, and drought severity and frequency are increasing, sub-working group or special taskforce need to be established as part of the Agricultural or Environmental Sector Working Group

### 5.3.3. Innovative financing sources

Several non-traditional funding sources are emerging because of the political, economical and climate changes that became evident during the past few decades. Among the potential international funding are the different financing mechanisms and instruments. There are more than twenty financing instruments dealing with climate change, taking into consideration the linkages between Climate Change and SLM is considered a window with high potential. Adaptation to climate change is closely related to SLM which is considered a unique opportunity to access climate change funds. Among these financial mechanisms are: the recently established Green Climate Fund (GCF), the Adaptation Fund of the UNFCCC, the Least Developed Countries Fund and the Special Climate Change Fund (SCCF) managed by GEF, the Clean Development Mechanism (CDM), climate investment fund and the Reducing Emissions from Deforestation and Forest Degradation (REDD). In addition to many bilateral initiatives such as International Climate Initiative (ICI) of Germany and Hatoyama Initiative of Japan. Other new funds such as the United Kingdom Environmental Transition Fund and the World Bank Climate Investment Fund. At the national level the Zaka fund, Palestinian Investment Fund and the Ministry of Religious Affairs (Waqf) are potential new and innovative financing sources.

PNA should explore and develop the mechanisms and instruments required to benefit from such resources, and to shed light on the challenges and constraints facing PNA and the need of support and assistance to enable it to combat and mitigate desertification, land degradation and drought.

In addition to the present funding agencies and the suggested innovative financing sources other potential funding sources such as, the Arab and Islamic Funds mainly AAAID, ISDB, AFESD, also ENP, OPEC Fund and other donors who are not engaged or there are more potentials for them to be involved.



## 6. The Action Plan

The action plan represents a translation of the strategic objectives of programmes and interventions for the coming seven years 2012-2018.

### To upgrade institutional, legal and human capacities and frameworks and to create the enabling policy environment

The following programmes and interventions will be implemented in order to achieve this strategic objective, which is closely linked to the second and fourth operational objective and the fourth strategic objective of UNCCD Action Plan 2008-2018.

#### 6.1.1. Institutional support programme

Major objectives of the programme are:

1. To upgrade capacities and capabilities of the institutions involved in mitigation and combating desertification, land degradation and drought
2. To improve efficiency and effectiveness of human, technical and financial resources used
3. To adhere and align with good governance guideline and requirement, mainly transparency effectiveness and accountability
4. To improve services delivery, access and sharing of data and information
5. To avoid duplications, overlaps and contradiction in efforts and approaches and to ensure harmony and coordination among different institutions, stakeholders, policies and strategies

The institutional support programme objectives will be achieved, through the adoption and implementation of the following interventions:

##### 6.1.1.1. Assessment and identification of institutions needs, this will include:

- Survey and review of institutions dealing with mitigation and combating desertification, land degradation and drought in terms of mandate and objectives; organizational structures; process, procedures and polices applied; programmes, systems and equipment needed.
- Preparation of institutional development plan for mitigation and combating desertification, land degradation and drought, concentrating mainly on, 1) national planning, coordination and M&E mechanisms and bodies, 2) public institution units and departments dealing with mitigation and combating desertification, land degradation and drought, 3) support of cooperatives, NGO's, CSOs and private sector institutions

##### 6.1.1.2. Improving the institutional capacities and performance

- Making available technical and managerial expertise
- Provision of systems, programmes and equipment to target institutions



- Support restructuring and upgrading of mitigation and combating desertification, land degradation and drought institutions
- Enhancement of M&E, accountability and governance in mitigation and combating desertification, land degradation and drought
- Development of applied research, technology and knowledge transfer system (including indigenous knowledge)<sup>1</sup>

### 6.1.2. Harmonization and reform of the regulatory framework programme

Laws and regulations that govern the issues related to desertification, land degradation and drought are characterized by being old, divided, scattered and weakly enforced; this is mainly due to the past and present political situations, particularly the Israeli occupation and its consequences.

The major objectives of this programme are:

- To achieve harmony, unity and consistency between different laws and regulations
- To protect and sustainably use natural resources
- To improve effectiveness and enforcement of laws and regulations

The programme objectives will be achieved through application of the following interventions

#### 6.1.2.1. Review and assessment of the present laws and regulations

#### 6.1.2.2. Development and amendment of the legal and regulatory framework governing mitigation and combating desertification, land degradation and drought

### 6.1.3. Human resource development programme

In the light of the institutional and legal restructuring and reforms, and in order to cope with the requirements of the new strategic objectives, the objectives of this programme will be:

1. To improve the efficiency and effectiveness of the services delivered by related stakeholders
2. To motivate the staff and enhance job security
3. The following interventions need to be adopted and implemented, in order to achieve the programme objectives:

#### 6.1.3.1. Conduct a resource gap analysis and human resource development plans for the institutions dealing directly with mitigation and combating desertification, land degradation and drought

#### 6.1.3.2. Implementation of the human resource development plan for different institutions and in different fields

#### 6.1.3.3. Assign and select certain national, regional and international institutions to deliver training and conclude cooperative agreements with them

## 6.2. To improve awareness and attitude of the stakeholders and to seek maximum participation and partnership of the affected people and the private sector

The following programmes and interventions will be implemented to achieve this strategic objective, which is closely linked to the first and fifth operational objective and the fourth strategic objective of the UNCCD Action Plan 2008-2018.

### 6.2.1. Awareness raising programme

The major objectives of this programme are:

1. Better understanding and assist accorded to issues related to desertification, land degradation and drought
2. Enhancement of sustainable use, management and conservation of natural resources
3. Donors and UN agencies allocate more resources to mitigation and combating desertification, land degradation and drought
4. Application and enforcement of laws and regulations improved

The programme objectives will be achieved through the application and implementation of the following intervention:

#### 6.2.1.1. Raising the awareness of politicians, decision makers, governors, professors and judges

13 see Ashley, J.M. (1999): Food crops and drought. The Tropical Agriculturalist Series. Macmillans, UK, 133pp.

This intervention will emphasize on the following subjects and issues:

- International convention and agreements pertinent to desertification, land degradation and drought and their obligations
- State and status of desertification, land degradation and drought in oPt and the region (trends, nature, impact ...etc)
- Harmonization and coordination of policies, legislations and intervention related to desertification, land degradation and drought
- Design and production of awareness media, materials, sessions, workshops...etc
- Importance and impact of mitigation and combating desertification, land degradation and drought
- M&E and adjustment of the campaigns

#### 6.2.1.2. Raising the awareness of local communities

This intervention will include:

- Review and assessment of the knowledge, attitudes and practices of local communities
- Dissemination and clarification of:
  - Causes of desertification and importance of combating desertification
  - Relevant laws and regulations
  - Role of local communities and their leaders, being tribal, local council heads or Imams
  - Importance of issues such as cooperatives and group work, accountability, sustainability, gender and youth
- Design and production of awareness campaigns i.e. materials, media, sessions, workshops ....etc
- M&E and adjustment of the campaigns

#### 6.2.1.3. Raising awareness of the general public

This intervention will include:

- Review and assess the level of awareness, knowledge and attitude of the general public to desertification, land degradation and drought issues, including policies, strategies, laws and regulations and international conventions and agreements
- Design awareness programmes and campaigns tailored to specific groups and geographic areas, such as schoolboys, education curricula, youth clubs, local government units, eastern slopes, Jordan valley, Gaza ....etc
- M&E and adjustment of the campaign

#### 6.2.2. Enhancement of the participation of stakeholders, mainly of the affected communities and private sector programme:

The major objectives of this programme are:

1. Ensure peoples' commitment, ownership and sustainability of the interventions and achievements
2. Efficient and effective management and supervision of the programmes and intervention
3. Contribution to good governance and better satisfaction of people

The programme objectives will be achieved through the implementation of the following interventions:

##### 6.2.2.1. Involvement of local communities and affected groups in all aspects of design, implementation, M&E and adjustments of projects, plans, policies and strategies

##### 6.2.2.2. Improvement of private sector participation

Private sector involvement and partnership in the implementation and conduct of the activities related to mitigation and combating desertification, land degradation and drought are essential, mainly during the planning, implementation and M&E of economic activities, resource management and services delivery.

This intervention will include:

- Division of labor, delegation of authorities and outsourcing of certain tasks, functions and works
- Application of proper motivation, incentives and enabling environment to private sector to work smoothly
- Ensure the participation of private sector representatives in decision making and policy dialogues

### 6.3. Conservation and sustainable use of natural resources

This strategic objective will materialize through the implementation of the programmes and interventions listed below (this strategic objective is closely linked to the first, second and third strategic objectives of UNCCD Action Plan 2008-2018).

#### 6.3.1. Preparation of studies, data and maps related to mitigation and combating desertification, land degradation and drought programme

Major objectives of this programme are:

1. To improve decisions and policies by making available proper decision aiding and support system

2. To establish, unify and harmonize the data and information related to desertification, land degradation and drought
3. To improve partnership, data sharing and to benefits from the comparative advantage of different stakeholders

The programme objectives will be achieved through the application and implementation of the following interventions:

**6.3.1.1. Preparation of data maps and surveys** mainly for the hot spots and most affected and endangered areas regarding land ownership, socio-economic and livelihood surveys, service delivery system and providers

**6.3.1.2. Preparation of desertification, soil survey, land use and suitability maps and studies for the hot spots and endangered areas**

**6.3.1.3. Preparation of local area development plans for the hotspots and endangered areas (income generation, job creation, social services and infrastructure)**

**6.3.1.4 Development of land degradation monitoring programme**

**6.3.2. Restoration and rehabilitation of hotspots and endangered areas programme**

Major objectives of this programme are:

1. To minimize, stop and/ or reverse the negative impacts of desertification, land degradation and drought
2. To improve productivity and markets for small ruminants and their products
3. To improve income, food security situation and livelihoods of people in the targeted areas

The objectives of the programme will be attained and achieved by the application and implementation of the following interventions:

**6.3.2.1. Development of optimal water harvesting, water collection and soil conservation measures, which will include:**

- Terraces, stone walls and bench terraces
- Water spreading, cisterns, earth bunds and check dams

**6.3.2.2. Development of rangeland restoration and rehabilitation, which will include:**

- Biomass, vegetative cover and carrying capacity surveys and studies

- Application of technical, institution and policy options (TIPOS) in each site and watershed
- Application of organized grazing, rest grazing and re-vegetation measures
- Establishment of users coops and groups for sustainable utilization of rangeland, provision of cheaper inputs, marketing and incentives distribution

**6.3.2.3. Small ruminant development, which will include the following**

- Distribution of improved rams and breeds
- Improved vet services such as vaccination, treatment of diseases
- Farm management
- Processing and marketing facilities
- Downsizing the flocks and their numbers

**6.3.2.4. Land reclamation, which will include the following**

- Construction of soil conservation and optimal rain-water harvesting measures
- Planting with appropriate fruit trees, forest trees and range shrubs and plants

## **6.4. To improve mobilization, efficiency and effectiveness of financial and technical resources**

The following programmes and interventions will be implemented in order to achieve this strategic objective, which is closely linked to the fourth strategic objective and the fifth operational objective of UNCCD Action Plan 2008-2018.

**6.4.1. Resources mobilization for the mitigation and combating desertification, land degradation and drought programme**

Major objectives of the programme are:

1. To allocate more national funding to financial issues related to mitigation and combating desertification, land degradation and drought
2. To mobilize additional international assistance and funding
3. To establish new mechanisms and seek new and innovative sources for funding

The programme objectives will materialize and be achieved through the following interventions:

**6.4.1.1. Establishment of pressure and lobbying group** to defend and promote issues related to

mitigation and combating desertification, land degradation and drought, and attract more national and international funding, this could be an informal group and might include: politicians, parliamentarians, academics, social leaders, journalists, lawyers...etc.

**6.4.1.2. Promotion of new and innovation funding mechanisms** such as cost sharing, co-finance, partnership with private sector and NGOs, dept swap, bilateral and international funds and special arrangements with the Ministry of Religious Affairs and Al Zaka- fund international funds and convention).

#### **6.4.2. Efficient management and use of financial resources Programme**

Major objectives of the programme are:

1. To ensure efficient use and management of the available resources
2. To establish proper mechanisms and modalities of funds and aid coordination and effectiveness

The programme objectives will materialize and be achieved through the following interventions:

**6.4.2.1. Establishment of working sub-groups** to combat and mitigate desertification, land degradation and drought as part of the LACS system (drought thematic group MoA)

**6.4.2.2. Launch a fund raising campaign**, in order to attract more funding to finance activities related to combating desertification, land degradation and drought



## 7. The Proposed Projects

Taking in consideration the projects and activities that are ongoing or suggested in the upcoming sectoral strategies and action plans of relevant Palestinian institutions, listed below are the proposed projects that are complementary, cross cutting and of high priority in combating and mitigation of desertification, land degradation and drought in oPt:

### **Project 1: A Study on Assessment and Enhancement of the Capacities of Institutions dealing with Desertification, Land Degradation and Drought**

#### **Rationale:**

Desertification, land degradation and drought are multi-disciplinary, cross-sectoral and multi institutional issues. The responsibilities and tasks of the institutions are not clearly defined and ambiguous. Furthermore, the capacities and capabilities of the institution dealing with the desertification related issues are weak.

#### **Objectives:**

1. To efficiently and effectively manage the natural resources and NAP/ IFS
2. To improve services delivery, knowledge, technology transfer, decision making processes and systems

#### **Activities:**

1. Review and assess the present status of the institutions, legal framework and human resources involved
2. Identify the need for improvement and upgrading of the capacities and capabilities related to desertification, land degradation and drought
3. Prepare a plan for the development of the institutions, legal framework and human resources
4. Present and discuss the plan with relevant national stakeholders, donors and UN agencies
5. Promote the project and raise funds for the implementation

**Implementing Institution:** EQA

**Potential Partners:** MoA, MOPAD, PENGON

**Duration:** 6 months

**Costs and Potential Financial Sources:** US \$ 50,000

**Donors:** UNDP, GM, PNA

## **Project 2: Raising Awareness of Stakeholders about Desertification, Land Degradation and Drought Issues**

### **Rationale:**

Raising the awareness of all stakeholders, from politicians and decision makers to the end users and schoolchildren is of great importance to achieve the objectives of this strategy and the NAP/IFS. Information and knowledge transfer of the nature, causes, consequences and implications of desertification and drought are prerequisites for sustainable and effective interventions and measures. Most stakeholders lack the knowledge and information about desertification, land degradation and drought and their appreciation and understanding is either limited or confused

### **Objectives:**

1. To improve and raise the awareness and ownership of different stakeholders to desertification relevant issues
2. To improve and attract non-traditional and innovative funding

### **Activities:**

- Assess awareness and knowledge levels of several groups and stakeholders
- Identify the appropriate interventions needed to raise the awareness of the stakeholders
- Define the material and products required for the awareness campaigns
- Prepare the material needed for each campaign and activity
- Design and produce the materials for different campaigns
- Conduct the campaigns
- Evaluate the results and impact of the awareness campaign

**Implementing Institution:** EQA

**Potential Partners:** MoA, NGOs, Private Sector

**Duration:** 6 Months

**Costs and Potential Financial Sources:**  
US\$ 100,000

Donors, UNDP, GM, PNA

## **Project 3: Establishment of Desertification and Drought Data Base and Monitoring System**

### **Rationale:**

Data and information regarding desertification and other related issues are mostly not available, scattered, unreliable and sometimes contradictory. Furthermore, appropriate data is a prerequisite and backbone of the drought and desertification monitoring system in addition to proper planning and decision-making process

### **Objectives:**

1. To improve knowledge and appreciation of, and to support decisions regarding, desertification and drought
2. To systematically monitor the magnitude and trends of desertification and drought

### **Activities:**

- Assess the available data and present data collection systems, institutions and monitoring activities
- Develop and establish a data base and monitoring system for desertification and drought at the national and sub-national levels
- Strengthen the institutional capacities and capabilities of the relevant institutions
- Upgrade the capabilities of the human resources involved
- Harmonize and integrate with other national and sectoral databases, providers and users needs and requirements.

**Implementing Institution:** EQA

**Potential Partners:** MoA, PCBS, MoPAD, NGOs, CSOs

**Duration:** 24 months

**Costs and Potential Financial Sources:**  
US\$ 2,000,000

Donors, PNA, GM and UNDP



#### **Project 4: Preparation of Studies and Maps for the Hotspots and Endangered Areas**

##### **Rationale:**

Several endangered areas and hotspots are suffering from severe desertification, land degradation and drought. Limited studies and maps are available about the status, causes, magnitude, socio-economic, indigenous knowledge and the appropriate measures and interventions.

##### **Objectives:**

1. To minimize, stop and/or reverse the negative impacts of desertification, land degradation and drought
1. To attract finance and support to implement the project and interventions related to hot spots and endangered areas.
1. To improve income, food security and livelihoods of the people in the targeted areas

##### **Activities:**

- Identify the endangered areas and hotspots in oPt
- Conduct analytical studies, surveys and prepare maps
- Recommend interventions and develop action plan for the development of each site.
- Discuss and consult the preliminary result and findings with relevant stakeholders

**Implementing Institution:** EQA

**Potential Partners:** MoA, Private sector and NGOs

**Duration:** 24 months

**Costs and Potential Financial Sources:** US \$ 1,000,000

Donors, GM, PNA and UNDP

#### **Project 5: Transfer of Indigenous Knowledge and Appropriate Technologies Related to Desertification and Drought.**

##### **Rationale:**

Several technologies, techniques and measure exist as indigenous knowledge, or developed locally or in other parts of the world, with great potential and relevance to the situation in oPt. Their potentials, adaptability, domestication and feasibility need to be studied and experimented with, mainly in the fields of soil conservation, optimal rain-water harvesting, crop varieties which yield well under minimal moisture conditions, alternative energy.... etc.

##### **Objectives:**

1. To benefit from the indigenous an appropriate technologies, techniques and measures
2. To improve production, productivity, income and livelihood of the target groups

##### **Activities:**

- Identify the indigenous knowledge with potential applications to combat desertification and drought
- Explore potential appropriate technologies to oPt conditions and circumstances
- Test and conduct demonstration blocks and trials
- Transfer and disseminate the results

**Implementing Institution:** MoA

**Potential Partners:** EQA, NARC, NGOs

**Duration:** 24 months

**Costs and Potential Financial Sources:** US \$ 1,000,000

Donors, GM and PNA



## 8. Management, M&E and the Way Forward for NAP/IFS

NAP/IFS overall supervision and coordination will be within the NCCD, which consists of members from the major stakeholders, being public, NGOs, CSOs and private sector.

The NCCD will approve the NAP/IFS and its implementation plan, including projects and interventions. It will ensure the harmonization and consistency among different stakeholders in order to achieve efficiency, sustainability and effectiveness of resources used. EQA will coordinate NAP/IFS with other environmental programmes and conventions at the national and international levels, mainly with UNCCD. The Palestinian focal point and Deputy Chair is EQA. MoA as the major implementer will align the agricultural strategies and plans with NAP/IFS. National coordination of policies, strategies and plans, in addition to foreign assistance coordination are conducted by MOPAD.

Monitoring, impact and result assessment and evaluation of the status, trends, interventions of desertification and drought are essential. Benchmarks and baseline surveys and data relevant to desertification, in addition to proper and sustainable M&E, are major instruments for NAP/IFS efficiency, effectiveness and sustainability of the results and impacts of the interventions.

For each programme there will be a Programme Management Unit (PMU) consisting of representatives of immediate stakeholders and implementing agencies, donors, relevant international agencies, the programme coordinator and the project managers. The major tasks of the PMU are to approve the work programme and budget, monitor progress in implementation and take necessary remedial actions. Each programme will consist of several projects/interventions, the management modality of each project differing according to its nature, lifespan, budget and donors requirements.

For each project/intervention a separate document and a log frame where the achievements, results, impacts and indicators will be identified. Reporting by project management will take place periodically to concerned institutions.

In order to ensure smooth implementation, ownership and partnership all through the coming stages, following are the interventions and actions to be taken:

1. Getting approval and endorsement  
Responsibility: EQA as project executing agency  
Time: May- August 2011
2. Establishment of a sub-sector working group on desertification and drought  
Responsibility: NCCD/ EQA  
Time: August- December 2011
3. Share the NAP and IFS with UNCCD, GM, GEF and other international and regional institutions and organizations  
Responsibility: EQA/ MoPAD  
Time: July- September 2011
4. Design and conduct dissemination and awareness campaigns on a pilot scale  
Responsibility: EQA, MoA  
Time: May- December 2011
5. Prepare ToRs and detailed documents for the proposed projects  
Responsibility: EQA  
Time: May- October 2011
6. Hold a national conference on desertification and drought in Palestine  
Responsibility: EQA/ UNDP, MoA  
Time: October- November 2011
7. Conduct fund raising campaigns  
Responsibility: MoPAD/ EQA  
Time: May- December 2011
8. Implement the high priority (fast track) projects  
Responsibility: Implementing Agency/ EQA/ donor  
Time: August 2011- December 2013

## Annexes

### Annex 1:

Organizational and Managerial Setup of the Formulation Process

### Annex 2:

List of Reviewed Documents

### Annex 3:

Composition of the Thematic Groups

### Annex 4:

Workshop for Discussing Thematic Groups Draft Reports

### Annex 5:

Regional Workshops Reports

- North West Bank workshop in Jenin
- Middle West Bank workshop in Jericho
- South West Bank workshop in Hebron
- Gaza Strip workshop in Gaza

### Annex 6:

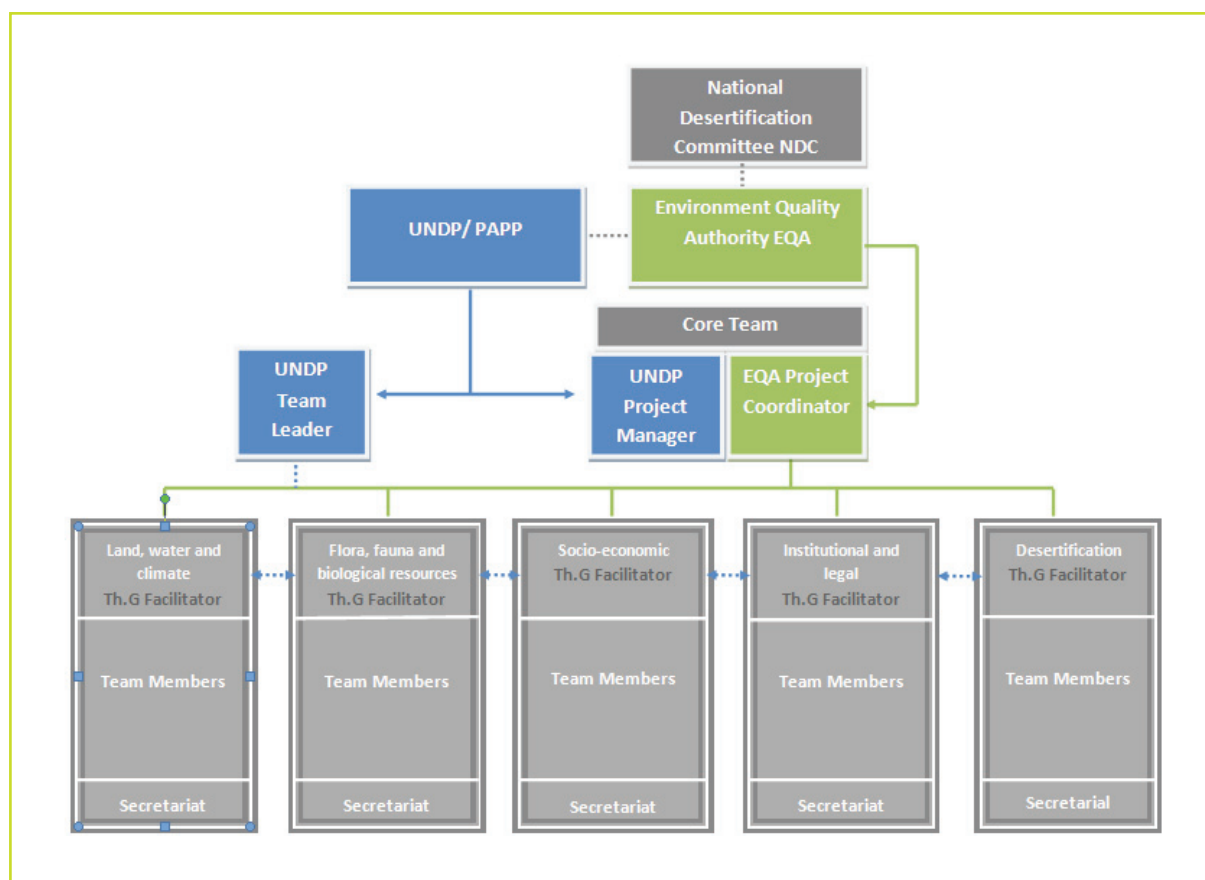
Previous and Ongoing Interventions

- Soil and Water
- Socio Economic Aspects
- Desertification
- Biodiversity

### Annex 7: Ongoing Projects

**Annex 8:** List of organizations contributing to NAP/IFS formulation

## Annex 1: Organizational and Managerial Setup of the Formulation Process



## Annex 2: List of Reviewed Documents

1. Socio-Economic and Food Security Atlas in the occupied Palestinian territory (ARIJ Feb. 2010)
2. Status of the Environment in the Occupied Palestinian Territory , (ARIJ, 2007)
3. Land Use Statistics in the Palestinian Territory, 2008  
(PCBS, Dec.2009)
4. Water Statistics in the Palestinian Territory Annual Report, 2008  
(PCBS, Sep. 2009)
5. Land Degradation in Palestine  
(Main Factors, Present Status and Trends, Recommended Actions)/ BASIM AHMAD DUDEEN/ Land Research Center
6. Environment Sector Strategy (EQA 2010)
7. Agriculture Sector Strategy (MoA 2010)
8. Natural Resources Strategy (MoA 2009)
9. Water Sector Strategy (PWA 2010)
10. Climate Change Adaptation Strategy for the Occupied Palestinian Territory, Aug. 2009
11. The Development of a National Policy and Legislation for Promoting the Conservation of Agro biodiversity in Palestine, Sep.2003
12. National Biodiversity strategy and Action Plan for Palestine, April 1999
13. Palestine: Ending the Occupation, Establishing the State) the 13th Government Programme / Aug. 2009 (PNA)

14. Homestretch to Freedom (The Second Year of the 13th Government Programme Palestine: Ending the Occupation, Establishing the State) / Aug. 2010 (PNA)
15. Palestinian Environment in Figures / Brochure,2009 (PCBS)
16. Climate Change: Impacts, Adaptations and Policy-Making Process: Palestine as a Case Study (Institute of Environmental and Water Studies (IEWS), Birzeit University/ Aug. 2009)
17. Assessment of Restrictions on Palestinian Water Sector Development / World Bank Report , April 2009
18. Papers:
  - a. Water Sector Review/ West Bank & Gaza (Vol. I – Summary Report)  
(ARIJ/ Oct.2006)
  - b. A Palestinian Vision of Environmental Protection and Sustainable Development  
(ARIJ/ 1994)
  - c. Climatic Zoning for Energy Efficient Buildings in the Palestinian Territories (the West Bank and Gaza)  
(ARIJ/2003)
19. Land and water thematic group report, 2011
20. Socio-economic thematic group report, Feb. 2011
21. Flora, fauna and biological resources “Biodiversity” thematic group report, 2011
22. Institutional and legal thematic group report, 2011
23. Desertification thematic group report, Dec. 2011

### Annex 3: Composition of the Thematic Groups

Thematic Groups Coordinator: Dr. Issa Albaradeiya

National Focal Point (EQA)

Subject matter	Coordinator/ organization	Secretary/ EQA
<b>Land and water</b>	Imad Ghanma / MoA	Abdelaziz Rayyan
<b>Socio-economic</b>	Asaad Odeh/ MoSA	Anwar Muala
<b>Flora, fauna and biological resources "Biodiversity"</b>	Thaer Al-Rabby/ MoA	Mohammed Mahassneh
<b>Institutional and legal</b>	Gadeer Abu Alroub/ MoA	Murad Madani
<b>Desertification</b>	Mekki Al Hafez/ Land Research Center	Ibrahim AlQouqa



## Annex4: Previous and Ongoing Interventions

### Soil and Water:

#### Previous Implemented Interventions

##### EQA

1. Regional Initiative for Dry Land Management (RIDM)			
First phase	1997-1999		
Second phase	2003-2005		
2. Integrated Management for Water Resources in Wadi Al-Fara'a			EU
3. Solid Waste Management (SWEMP)			
4. Reuse of Treated Water for Agricultural Use (MEDAWARE)			
5. Biodiversity Strategy and the Work Plan	1999		
6. Integrated Plan for the protection of the environment in rural areas	2003	400000 Euro	EU
7. Rehabilitation of Wadi Gaza	2000		

##### Land Research Center

1. Survey of Soil Resources in WB &GS/ TEMISIS Italian	1/11/01-1/06/200		
2. Combat Drought – Emergency Aid for Bedouins	1/6/97-31/12/200		
3. Development of South Land/ Alta'wen Institution	1/9/99-5/06/2001		
4. Land Development/ Siris, Tubas, Aljdaideh/ UNDP			
5. Establishment of Land Information System (GIS) to Improve Capabilities of Municipalities for Planning and Supervision			
6. Surif Land Reclamation – Dahr AlKandol/ UNDP	1/07/2001-28/02/2002		
7. Land Development Project – Retaining Walls/ UNDP	08/10/2001-24/11/2001		
8. Evaluation of Environmental Impacts and the Prospects of Rehabilitation of Queries in the North Eastern Area of Hebron/ Anera	1/11/2001-1/06/2002		
9. Land Development Project – Retaining Walls/ UNDP	8/02/2002-8/06/2002		
10. Land Development Project – Agricultural Wells/ UNDP			
11. Land Development Project– Reclamation and Wells/ UNDP			

12. Public Awareness for Queries and their Impacts on the Environment and Biodiversity /UNDP-GEF			
13. Land Development Project- Home Gardens/UNDP			
14. Home Gardens/ Australian Cooperation			
15. Conversion of Abandoned Query to Kid Garden			
16. Integrated Agricultural Development/ Second Phase			
17. Development of Soil Maps to the Biodiversity Areas in WB			
18. Individual Land Reclamation focusing on Manual Work			
19. Rehabilitation of Agricultural Lands/ 2005			
20. Land Development Project in the South WB	1/4/2009 -1/3/2010	US \$175957.80	
21. Economic Empowerment to the Poor Families "Project to Develop Human Capital and the Creation of Sustainable Job Creation in the Governorates of Hebron and Bethlehem"	1/11/2009-31/5/2010	237402.81	

### Agricultural Relief Projects

1. Reclamation of 1008 Du - Integrated Reclamation			
2. Rehabilitation of 1049 Du of Agricultural Lands			
3. Construction and Rehabilitation of 33 km of Agricultural Roads			
4. Establishment of 65 Cement Pool to Serve 584 Du			
5. Establishment of 18 Metallic Pool to Serve 100 Du			
6. Extend 32 km of Collective Irrigation Networks with diameters of(6 «, 4») to serve 3510 Du			
7. Construction of two tanks with a size of 1000 m3/ tank			
8. Distribution and Installation of 90 Irrigation Networks for the Home Garden			
9. Distribution and Installation of Irrigation Networks for 300 Du of Agricultural Lands			
10. Establishment of 18 Individual Purification Station			
11. Establishment of 20 Domestic Well with a size of 1000 m3			
12. Cultivation of 190400 Fruit Nursery to cultivate 6500 Du of Agricultural Lands			

## Socio Economic Aspects:

Previous and Ongoing Implemented Interventions			
1. Regional Initiative for the Dry Lands Management (RIDM)			
First Phase	1997-1999		
Second Phase	2003-2005		
2. Integrated Management for Water Resources in Wadi Al- Fara'a			EU
3. Waste Management Project SWEMP			
4. Reuse of Treated Water for Agricultural Use (MEDAWAR)			
5. Integrated Plan for Environmental Protection in the Rural Areas	2003	400000Euro	EU
6. Rehabilitation Fund for Disabilities Persons, Implemented Agricultural, Animal and Industrial Projects			
7. World Food Programme Project			
8. Support and Repair of Social Safety Net Project-Social Protection Programme SSNRP			
9. Enabling of Economically Disadvantage Families (DEEP) 2008-2010			
10. Help Farmers to Face the Occupation Measures and Settlers included the activities of the damage compensation to affected farmers of the wall and fishermen in Gaza			
11. Reclamation of Large Areas of Land that was not exploited or neglected, with an estimated area of what has been reclaimed about 70 thousand Du and the establishment of an area of 3.5 million m <sup>2</sup> of retaining walls and construction of, agricultural roads with a long of 3 thousand km			

## Desertification:

### Previous Implemented Interventions

1. Regional Initiative for the Dry Lands Management (RIDM)			
First Phase	1997-1999		
Second Phase	2003-2005		

2.	Integrated Management for Water Resources in Wadi Al- Fara'a			EU
3.	Waste Management Project SWEMP			
4.	Reuse of Treated Water for Agricultural Use (MEDAWAR)			
5.	Biodiversity Strategy and the Work Plan	1999		
6.	Integrated Plan for Environmental Protection in the Rural Areas	2003	400000 Euro	EU
7.	Rehabilitation of Wadi Gaza	2000		

## Biodiversity:

### Projects Implemented by EQA:

#	Project/ Objectives	Implemented Agency	Donors	Project Period (Year)	Budget
1	Survey Project for the Areas Rich in Biodiversity and Natural Forests and Woodlands Planted in the West Bank, in order to work on the protection and sustainable conservation of these areas, and maintenance of endangered species from erosion and degradation	EQA			
2	Strategy and National Plan for Biodiversity in Palestine, which included the national priorities related to biodiversity and the national goals and short and long term plans for the conservation and the protection and sustainable use of biodiversity	EQA			
3	Regional Project for the Integrated Management to Combat Desertification, which has been implemented in the eastern slopes of the southern West Bank, which included programmes of watershed management programmes, water harvesting programmes, reuse of treated wastewater in agriculture programmes, rangeland management programmes, anti-poverty programmes, programmes of biodiversity conservation and control of fishing	EQA	World Bank and others		
4	Survey Study Project of the Natural Reserves of the Palestinian Side and the Other Reserves under Israeli Control, which included a survey of endangered and prioritized plants, animals and wild birds	IUCN with the cooperation of EQA and MoA	UNEP	3 months	50000 USD

Projects Implemented by MoA:	
#	Budget Project Period (Year) Donors Implemented Agency Project/ Objectives
1	<p>1507009SDR 18 month EPHADMOA Natural Resources Management Project in Partnership</p> <p>The project aims to reduce poverty and increase income of small farmers in areas where the potential for alternative income generation is decreased through the development and management of land and water resources to enhance and preserve their productivity</p>
2	<p>US\$6678665</p> <p>and in 2010 it was approved to work with US\$ 2.5 million and it expedited US\$ 700 thousand until now 2 years MoFMoA Support Local Authorities Affected by the Wall and the Settlements Programme</p> <p>The project aims to strengthen the resilience of farmers in the affected area by the wall and the settlements</p>
3	<p>By MoA mechanisms (Self financing) It started in 1999 and will continue until the need to construct roads</p> <p>MoAMoA Construction of agricultural Roads by Ministry of Agriculture mechanisms</p> <p>The project aims to construct agricultural roads in all governorates</p>
4	<p>US\$1300 million 2 years Brazilian Government MoA Brazilian Project</p> <p>The project aims to the sustainable management of the public rangelands, it includes 1500 hectares of land in the overgrazing areas because it is the main reason to threaten the livelihoods of sheep farmers in those areas, and these areas will be evaluated and rehabilitated of the rangelands through the restoration of topsoil, re-seeding the rangelands and increase soil fertility, as a result there will be more awareness among livestock farmers to establish a control system based on the carrying capacity of the rangelands</p>
5	<p>US \$ 200 thousand million Swiss Government MoA Swiss Project (Conservation of Biodiversity in Ramallah Area)</p> <p>The project aims to rehabilitation of Kafr Malek nursery to produce forest and rangeland nurseries, cultivate 500 du of forests in Ramallah, establish botanic garden in AlHashemi Forest (Bet Ello) area of 50 du by growing natural varieties and build a fence around it and a gate and put simple corridors to serve the education in schools and professionals.</p>
6	<p>US\$ 2 million GEFMoA-UNDP/PAPPA Agro Biodiversity</p> <p>The project aims to the enhancement and sustainable conservation of agro biodiversity through farmers, based on conservation in the home for many wild lives and local breeds of barley, wheat, lentils, garlic, olives, almonds, pistachio, figs, plums, apricots, cherries, fodder, pear, and other varieties belonged to mecago, trifolium and aljelban albaladi, and to increase the competition between the local and similar varieties with the inserted genetic material and to improve the livelihood of local communities.</p>
7	<p>US \$ 15 million 5 years MoAMoA Greening Palestine Project</p> <p>The main objective of the project is the formation of a national forum in order to increase the green area, where the priority will be to the governmental and awqaf land and then to the private land that will be planted with horticulture trees in the West Bank and Gaza, where an area of this land is 1600 million km<sup>2</sup>. and encourage farmers to exploit the available natural resources efficiently through the cultivation of typical parts of fruit varieties and species with a comparative advantage and contribute the improving of the environmental situation, as a result contribute to the protection of endangered confiscated lands and the lands affected by the wall in addition to planting the seeds of bitter almonds in the mountains.</p>



## Annex 5: Ongoing Projects

#	Project	Donor	Implementing Agency	Starting Date	Ending Date	Budget US\$
<b>Land use</b>						
1.	Early recovery programme II – Gaza Strip	Representative Office of the Kingdom of the Netherlands to the Palestinian Authority	Palestinian Agricultural Relief Committees	01/June/2010	31/May/2012	5,721,297
2.	Emergency livelihood support to vulnerable food insecure households and communities displaced or at risk of displacement in the oPt	European Union	Agency for Technical Cooperation and Development	01/January/2010	31/December/2010	1,262,683
3.	Emergency support to protect agriculture-based livelihoods in the pastoral areas of the West Bank	Food & Agriculture Organization of the United Nations	Unity and Cooperation for Development of peoples	15/December/2010	15/October/2011	153,487
4.	Fencing agricultural lands in Jenin	-	International Committee of the Red Cross	01/May/2010	01/August/2010	0
5.	Improving the food security conditions and access to water for agricultural use of 469 beneficiaries affected by the Israeli military operation Cast Lead in Khuzaa, Gaza Strip	-	Asamblea de Cooperacion por la Paz	10/February/2010	10/October/2010	0
6.	Land Rehabilitation in Ramallah	-	International Committee of the Red Cross	31/May/2010	14/July/2010	0
7.	Partial land rehabilitation programme 2010	-	International Committee of the Red Cross	07/January/2010	31/December/2010	0
8.	Quick impact agricultural livelihood recovery	Canadian International development Agency	CARE International, West Bank/Gaza	17/July/2009	30/April/2011	2,595,200
9.	Rehabilitation of destroyed land through bio farming	-	International Committee of the Red Cross	01/May/2010	31/December/2010	0
10.	Supporting Livelihoods in Eastern Villages of the Hebron Governorate through Community-Based Micro-Watershed Rehabilitation	Consulat General de France	Union of Agricultural Work Committees	01/November/2009	30/June/2010	103,741



11.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000
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## Environment/drainage

1	Pilot project for plastic recycling in Gaza City	Italian Cooperation	Cooperazione Internazionale	12/February/2010	27/December/2010	440,000
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## Livestock production

1.	Emergency livelihood support to vulnerable food insecure households and communities displaced or at risk of displacement in the oPt	European Union	Agency for Technical Cooperation and Development	01/January/2010	31/December/2010	1,262,683
2.	Emergency support and employment generation for female-headed households through backyard farming and cottage industry in the West Bank and Gaza Strip	Spanish Cooperation	Food & Agriculture Organization of the United Nations	15/November/2009	15/November/2010	592,748
3.	Emergency support to protect agriculture-based livelihoods in the pastoral areas of the West Bank	Food & Agriculture Organization of the United Nations	Unity and Cooperation for Development of peoples	15/December/2010	15/October/2011	153,487
4.	Emergency support to small ruminant herders and vulnerable farming households in the West Bank and Gaza Strip (WBGs)	Italian Cooperation	Food & Agriculture Organization of the United Nations	10/January/2010	10/April/2011	1,000,000
5.	Emergency support to the agricultural livelihoods of breeders households threatened by Chlamydia infection in Massafer Yatta, road 317 and Bedouin areas	Office for the Coordination of Humanitarian Affairs	Unity and Cooperation for Development of Peoples	04/February/2011	30/May/2011	165,957
6.	Food security support for vulnerable households in Gaza Strip through backyard animal production	European Commission	Action Against Hunger - Spain	01/April/2010	31/March/2011	605,000
7.	Immediate interventions to assist the general early recovery of the agricultural sector in the Gaza Strip and to restore the livelihoods and food production of vulnerable and conflict affected rural households		Food & Agriculture Organization of the United Nations	01/June/2009	01/May/2011	762,500

8.	Improving living conditions of Bedouin herders' households in Gaza Strip	European Commission	CRIC - Centro Regionale Di Intervento Per La Cooperazione	01/July/2009	30/June/2010	1,000,000
9.	Improving the food security and economic conditions of the rural population in the northern Gaza Strip affected by the Israeli military intervention Operation Cast Lead in the Gaza Strip		Asamblea de Cooperacion por la Paz	10/March/2010	03/July/2010	
10.	Improving the food security conditions of 86 vulnerable families in the villages of Qaffin, An Nazla the Gharbiya, Zeita and Nazla An ash Sharqiya, West Bank, Palestine		Asamblea de Cooperacion por la Paz	01/August/2010	01/February/2011	
11.	Livelihood support to the most vulnerable communities in southern West Bank with an emphasis on traditional herders through components of food security, water and sanitation		Action Against Hunger - Spain	15/August/2010	14/August/2014	
12.	Livelihoods support for herders affected by the north Jordan Valley fire	Office for the Coordination of Humanitarian Affairs	Agency for Technical Cooperation and Development	01/June/2010	31/October/2010	74,635
13.	Middle East Regional Agricultural Programme-aquaculture	Middle East - Regional Agricultural Programme Phase II RCO	Ministry of Agriculture	01/February/1999	31/December/2010	198,000
14.	Poverty alleviation	Arabic Organization for Agricultural Development	Arabic Organization for Agricultural Development	01/December/2003	31/January/2010	9,000
15.	Reducing food insecurity in conflict affected communities in the West Bank	European Commission	CARE International, West Bank/Gaza	01/April/2010	31/March/2011	1,221,747
16.	Reducing Food Insecurity through Fresh Food Assistance and Agricultural Inputs to Vulnerable Households in the Gaza Strip	European Commission	CARE International, West Bank/Gaza	01/April/2010	31/March/2011	2,927,900
17.	South Bethlehem Assistance in the Agricultural sector (ANCP)	Australian Agency for International Development	World Vision International	01/July/2007	01/June/2010	
18.	Support Bedouin community of Maslakh	Italian Cooperation	CRIC - Centro Regionale Di Intervento Per La Cooperazione	15/February/2010	15/December/2010	270,000
19.	Support to the breeders in Gaza Strip	Italian Cooperation	Unity and Cooperation for Development of peoples	15/February/2010	14/December/2010	442,500

20.	Supporting early recovery of agricultural livelihoods in Gaza	U.S. Agency for International Development	CARE International, West Bank/Gaza	01/November/2009	30/April/2011	1,194,880
21.	Sustainable access to food within female led vulnerable households in the seam zone areas of Jerusalem & Ramallah governorates - 2010	Swedish International Development Cooperation Agency	Applied Research Institute - Jerusalem	01/May/2010	31/March/2011	663,891
22.	Toward food sustainability in Gaza Strip		MAAN Development Center	01/October/2008	30/September/2011	
23.	Women's livelihood support in rural communities	DanChurch Aid	Juhoud for Community & Rural Development	01/December/2009	31/May/2010	60,000

### Wastewater/sanitation infrastructure Projects

1.	Construction of sewerage network in Rafah	Australian Agency for International Development	United Nations Children Fund	20/May/2010	30/November/2010	360,000
2.	Khanyounis waste water treatment plant	Government of Japan	UN Development Programme - Programme of Assistance to the Palestinian People	01/January/2006	31/December/2013	14,830,000
3.	Rehabilitation of sewage network in Rafah, Gaza	Australian Agency for International Development	United Nations Children Fund	01/January/2010	31/December/2010	70,000
4.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000

### Water harvesting/ storage

1.	Emergency response to contribute to the humanitarian needs in the water and sanitation sector of the most vulnerable segments of the population of the occupied Palestinian territory, affected by the conflict	ECHO	Action Against Hunger - Spain	01/February/2010	30/January/2011	1,427,200
2.	Emergency response to critical humanitarian WASH needs in vulnerable communities in the occupied Palestinian territory (OPT)	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/November/2011	832,048

3.	Improvement of the hygiene, food security and economic conditions of the rural Palestinian population in the village of Al Judeidah, Jenin District, West Bank, oPt	-	Asamblea de Cooperacion por la Paz	17/October/2009	17/August/2010	0
4.	Improving access and availability of water quality of the population of the towns of Ar Rifa'iyya and Ad Deirat, District of Hebron, West Bank, occupied Palestinian territories	Spanish Cooperation	Asamblea de Cooperacion por la Paz	15/January/2011	15/May/2011	29,000
5.	Improving living conditions in the Hebron Governorate by improving accessibility to safe water	ECHO	Gruppo Di Volontariato Civile- Italy	01/March/2010	31/May/2011	1,300,000
6.	Improving the access to and availability of quality water for the 3281 residents of Al Ramadin, district of Hebron, oPt	-	Asamblea de Cooperacion por la Paz	01/June/2010	01/November/2011	0
7.	Improving the access to and availability of quality water for the residents of Al Malih, Northern Jordan Valley, West Bank, occupied Palestinian territories	-	Asamblea de Cooperacion por la Paz	01/June/2010	01/December/2011	0
8.	Improving the access to and availability of water for the 572 residents of Arab Al Fureijat, district of Hebron, West Bank, oPt	-	Asamblea de Cooperacion por la Paz	01/July/2010	01/October/2010	0
9.	Improving the access to water and food security conditions of vulnerable households in Surif, Hebron district, West Bank, oPt	-	Asamblea de Cooperacion por la Paz	01/September/2010	01/January/2011	0
10.	Improving the access to water and hygiene conditions in the communities of Ad Deirat and Ar Rifayya, Hebron district, West Bank, oPt	-	Asamblea de Cooperacion por la Paz	01/September/2010	01/January/2011	0
11.	Improving the access to water and hygiene conditions in the community of Arab Al Fureijat, Hebron district, West Bank, oPt	-	Asamblea de Cooperacion por la Paz	01/September/2010	01/November/2010	0
12.	Improving the access to water and hygiene conditions of vulnerable households in the Jabalia refugee camp, Beit Hanoun, Beit Lahiya and Rafah areas of the Gaza Strip, oPt	-	Asamblea de Cooperacion por la Paz	01/September/2010	01/September/2011	0

13.	Improving the accessibility and availability of water for domestic use, of 5384 inhabitants of Beit Roosh-Al Tahta, Beit al-Foqa Roosh, Deir al-Asal Al-Foqa, Deir al-Asal Al-Tahta and Beit Kahel, district Hebron, West Bank, Palestinian occupied territories, through the construction and rehabilitation of water infrastructure	-	Asamblea de Cooperacion por la Paz	25/October/2009	25/August/2010	0
14.	Sostegno alle comunita beduine della Cisgiordania, Palestina	-	Comitato Internazionale per lo Sviluppo dei Popoli	01/July/2010	31/July/2012	636,500
15.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000

## Water resources

1.	Cisterns rehabilitation in Nazlet Issa		International Committee of the Red Cross	28/June/2010	30/August/2010	0.00
2.	Cisterns rehabilitation in Safarin		International Committee of the Red Cross	13/June/2010	01/August/2010	0.00
3.	Emergency support to protect agriculture-based livelihoods in the pastoral areas of the West Bank	Food & Agriculture Organization of the United Nations	Unity and Cooperation for Development of peoples	15/December/2010	15/October/2011	153,487
4.	Emergency support to vulnerable farmers in the West Bank and Gaza Strip to maintain and protect their livelihoods through horticulture production	Spanish Cooperation	Food & Agriculture Organization of the United Nations	30/November/2009	30/November/2011	1,722,455
5.	Immediate interventions to assist the general early recovery of the agricultural sector in the Gaza Strip and to restore the livelihoods and food production of vulnerable and conflict affected rural households		Food & Agriculture Organization of the United Nations	01/June/2009	01/May/2011	0.00
6.	Improving the food security conditions and access to water for agricultural use of 469 beneficiaries affected by the Israeli military operation Cast Lead in Khuzaa, Gaza Strip		Asamblea de Cooperacion por la Paz	10/February/2010	10/October/2010	0.00

7.	Protection of agricultural livelihoods in Area C and the Seam Zone through improved access to water for agricultural use, Qalqiliya and Tulkarem districts, West Bank		Asamblea de Cooperacion por la Paz	01/September/2010	01/May/2011	0.00
8.	Protection of agricultural livelihoods in Area C and the Seam Zone through improved access to water for agricultural use, Qalqiliya district, West Bank		Asamblea de Cooperacion por la Paz	01/August/2010	01/April/2011	0.00
9.	Protection of agricultural livelihoods in Area C and the Seam Zone through improved access to water for agricultural use, Tulkarem district, West Bank		Asamblea de Cooperacion por la Paz	01/September/2010	01/March/2011	0.00
10.	Rehabilitation of ancient Roman wells in the occupied Palestinian territory (oPt)	Italian Cooperation	AVSI	01/January/2011	30/November/2011	240,000
11.	Sustainable access to food within female led vulnerable households in the Seam Zone Areas of Jerusalem & Ramallah governorates - 2010	Swedish International Development Cooperation Agency	Applied Research Institute - Jerusalem	01/May/2010	31/March/2011	663,891
12.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000
13.	Toward food sustainability in Gaza Strip		MAAN Development Center	01/October/2008	30/September/2011	0.00
14.	Water tanks project in Bethlehem		International Committee of the Red Cross	01/June/2010	01/December/2010	0.00

## Water sources development

1.	Emergency response to critical humanitarian WASH needs in vulnerable communities in the occupied Palestinian territory (OPT).	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/November/2011	832,048
2.	Improvement of water access and use for 1251 inhabitants (643 women and 608 men) of An Nabi Al-Yas, Qalqilya governorate, occupied Palestinian territory	Spanish Cooperation	Asamblea de Cooperacion por la Paz	30/June/2010	15/October/2010	90,000

3.	Improving access and availability of water quality of the population of the towns of Ar Rifa\siyya and Ad Deirat, District of Hebron, West Bank, occupied Palestinian territories	Spanish Cooperation	Asamblea de Cooperacion por la Paz	15/January/2011	15/May/2011	29,000
4.	Improving the access to water and hygiene conditions in the communities of Ad Deirat and Ar Rifayya, Hebron district, West Bank, oPt		Asamblea de Cooperacion por la Paz	01/January/2011	01/January/2011	0.00
5.	Improving the access to water for domestic consumption of 5306 people affected by the Israeli military operation Cast Lead in the districts of Gaza and North Gaza, Gaza Strip, occupied Palestinian territories		Asamblea de Cooperacion por la Paz	02/February/2010	02/November/2010	0.00
6.	Irrigation infrastructure rehabilitation for the resumption of agricultural activities in Gaza Strip	Italian Cooperation	GRUPPO di VOLONTARIATO CIVILE- ITALY	20/January/2010	04/December/2010	431,500
7.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000

### Water supply infrastructure

1.	2x500 m3 elevated reservoirs in Karmil, Khalit Al Maiya	-	International Committee of the Red Cross	25/May/2010	25/January/2011	470,000
2.	Aqraba cluster - construction of Awarta boosting station	-	International Committee of the Red Cross	28/March/2010	28/November/2010	910,000
3.	Birzeit: water map to a better life!	U.S. Agency for International Development	AVSI	01/October/2010	30/September/2011	541,187
4.	Construction main transmission pipelines for Awarta- Aqraba- Osarine villages - Nablus district	-	Palestinian Water Authority	10/August/2009	10/April/2010	0
5.	Construction of main water feeders in Aqraba cluster - Nablus district	-	International Committee of the Red Cross	20/October/2010	21/May/2011	1,000,000
6.	Construction of Awarta booster station - Nablus district	-	Palestinian Water Authority	01/April/2010	01/October/2010	0
7.	Construction of Dar Salah pumping station - Bethlehem district	-	Palestinian Water Authority	06/January/2010	06/May/2010	0



8.	Construction of electro-mechanical components at Anabta well no.3	-	International Committee of the Red Cross	16/December/2010	16/August/2011	1,050,000
9.	Construction of Halhul booster station-Hebron district	-	International Committee of the Red Cross	16/December/2010	16/June/2011	300,000
10.	Construction of new water transmission main pipeline for Ad Dahriya village - Hebron district	-	Palestinian Water Authority	01/March/2010	1/September/2010	0
11.	Construction of transmission main pipeline 7.6 km (DN200mm, DN 150mm ) and construction of water elevated tank for Khallet El Mayya capacity 500m3 and construction of elevated tank for El karmel capacity 500 m3	-	Palestinian Water Authority	1/April/2010	1/April/2011	0
12.	Construction of water transmission line for Adh Dahairiya municipality	-	International Committee of the Red Cross	01/March/2010	30/August/2010	260,000
13.	Emergency humanitarian action to improve the access to water for domestic use of 25,000 people in Beit Jala, the Aida refugee camp, Ad Doha and Al Khader, district of Bethlehem, West Bank	Spanish Cooperation	Asamblea de Cooperacion por la Paz	30/November/2009	30/July/2010	230,970
14.	Emergency response to contribute to the humanitarian needs in the water and sanitation sector of the most vulnerable segments of the population of the occupied Palestinian territory, affected by the conflict	ECHO	Action Against Hunger - Spain	01/February/2010	30/January/2011	1,427,200
15.	Emergency response to critical humanitarian WASH needs in vulnerable communities in the occupied Palestinian territory (oPt)	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/November/2011	832,048
16.	Improvement of water access and use for 1251 inhabitants (643 women and 608 men) of An Nabi Al-Yas, Qalqilya governorate, occupied Palestinian territories	Spanish Cooperation	Asamblea de Cooperacion por la Paz	15/October/2010	30/June/2010	90,000
17.	Improving living conditions in the Hebron governorate by improving accessibility to safe water	ECHO	Gruppo Di Volontariato Civile- Italy	01/March/2010	31/May/2011	1,300,000

18.	Improving the access to water for domestic consumption of 5306 people affected by the Israeli military operation Cast Lead in the districts of Gaza and North Gaza, Gaza Strip, occupied Palestinian territories	-	Asamblea de Cooperacion por la Paz	02/February/2010	02/November/2010	0
19.	Improving the accessibility and availability of water for domestic use, of 5384 inhabitants of Beit Roosh-Al Tahta, Beit al-al-Foqa Roosh, Deir al-Asal Al-Foqa, Deir al-Asal Al-Tahta and Beit Kahel, district Hebron, West Bank, occupied Palestinian territories, through the construction and rehabilitation of water infrastructure	-	Asamblea de Cooperacion por la Paz	25/October/2009	25/August/2010	0
20.	Irrigation infrastructure rehabilitation for the resumption of agricultural activities in Gaza Strip	Italian Cooperation	Gruppo Di Volontariato Civile- Italy	20/January/2010	04/December/2010	431,500
21.	Rehabilitation of water networks in WB	Swedish International Development Cooperation Agency	United Nations Children Fund	01/January/2010	31/December/2010	110,000
22.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000
23.	Transmission pipeline for Khalit Al Maiya and Karmel villages- Hebron district	-	International Committee of the Red Cross	25/July/2010	30/January/2011	740,000
24.	Water Infrastructure rehabilitation for conflict affected communities in the occupied Palestinian territories	-	Premiere Urgence	01/April/2010	28/February/2011	300,000
<b>Water quality/treatment</b>						
1	Emergency response to critical humanitarian WASH needs in vulnerable communities in the occupied Palestinian territory (oPt).	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/November/2011	832,048

2	Emergency response to contribute to the humanitarian needs in the water and sanitation sector of the most vulnerable segments of the population of the occupied Palestinian territory, affected by the conflict.	ECHO	Action Against Hunger - Spain	01/February/2010	30/January/2011	1,427,200
3	Improving living conditions in the Hebron Governorate by improving accessibility to safe water	ECHO	Gruppo Di Volontariato Civile- Italy	01/March/2010	31/May/2011	1,300,000
4	Irrigation infrastructure rehabilitation for the resumption of agricultural activities in Gaza Strip	Italian Cooperation	Gruppo Di Volontariato Civile- Italy	20/January/2010	04/December/2010	431,500
5	Sostegno alle comunita beduine della Cisgiordania, Palestina		Comitato Internazionale per lo Sviluppo dei Popoli	01/July/2010	31/July/2012	636,500
6	Strengthening data base system (GIS) in CMWU	Australian Agency for International Development	United Nations Children Fund	30/April/2010	30/July/2010	50,000
7	Strengthening of cluster coordination	Australian Agency for International Development	United Nations Children Fund	01/January/2010	31/December/2010	502,005
8	Support the water quality monitoring activities at the PWA	Swedish International Development Cooperation Agency	United Nations Children Fund	01/May/2010	31/December/2010	50,000

### Emergency water distribution

1.	Supplying drinking water for schools	Islamic Relief Worldwide - Palestine Office	Islamic Relief Worldwide - Palestine Office	01/March/2009	01/March/2011	150,000
2.	Strengthening of cluster coordination	Australian Agency for International Development	United Nations Children Fund	01/January/2010	31/December/2010	502,005
3.	Emergency response to critical humanitarian WASH needs in vulnerable communities in the occupied Palestinian territory (oPt).	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/November/2011	832,048
4.	Distribution of safe drinking water to schools		United Nations Children Fund	07/March/2010	31/December/2010	50,000

### Plant production and irrigation

1.	Livelihood security and civil society strengthening in the occupied Palestinian territory «TATWEER»	Australian Agency for International Development	CARE International, West Bank/Gaza	01/May/2009	30/April/2014	3,500,609
2.	A Regional strategy for control of Bactrocera oleae – the Olive Fly	Middle East Regional Cooperation Programme	Palestinian Agricultural Relief Committees	01/June/2007	31/May/2010	783,494

3.	Emergency response to Tuta Absoluta in Gaza	Office for the Coordination of Humanitarian Affairs	Food & Agriculture Organization of the United Nations	01/July/2010	31/October/2010	250,000
4.	Emergency support to reduce food insecurity among the population of Beit Lahia, Gaza Strip following Operation Cast Lead	Spanish Cooperation	Asamblea de Cooperacion por la Paz	30/November/2009	30/June/2010	359,667
5.	Emergency support to vulnerable farmers in the West Bank and Gaza Strip to maintain and protect their livelihoods through horticulture production	Spanish Cooperation	Food & Agriculture Organization of the United Nations	30/November/2009	30/November/2011	1,722,455
6.	Enhancing livelihoods and entrepreneurship skills of vulnerable youth through junior farmer field and life schools and youth clubs in the West Bank	Norwegian Agency of Development Cooperation	Food & Agriculture Organization of the United Nations	01/December/2009	30/November/2010	315,000
7.	Green house - nursery in Bethlehem	-	International Committee of the Red Cross	01/January/2010	01/January/2011	0
8.	Immediate interventions to assist the general early recovery of the agricultural sector in the Gaza Strip and to restore the livelihoods and food production of vulnerable and conflict affected rural households	-	Food & Agriculture Organization of the United Nations	01/June/2009	01/May/2011	0
9.	Improving food security for vulnerable Palestinian households	Mennonite Central Committee	Applied Research Institute - Jerusalem	01/June/2009	30/September/2011	203,423
10.	Improving living conditions of Bedouin herders' households in Gaza Strip	European Commission	CRIC - Centro Regionale Di Intervento Per La Cooperazione	01/July/2009	30/June/2010	1,000,000
11.	Improving the economic and food security conditions of 649 inhabitants of the rural population of Abssan Aljadeeda, Gaza Strip	-	Asamblea de Cooperacion por la Paz	09/October/2009	08/April/2010	0
12.	Improving the food security and economic conditions of 301 people (30 households) from the rural population of Alshoka, Gaza Strip, after the military incursion	-	Asamblea de Cooperacion por la Paz	24/November/2009	23/May/2010	0

13.	Improving the food security conditions and access to water for agricultural use of 469 beneficiaries affected by the Israeli military operation Cast Lead in Khuzaa, Gaza Strip	-	Asamblea de Cooperacion por la Paz	10/February/2010	10/October/2010	0
14.	Improving the food security standards and access to water for agriculture of 5539 inhabitants (2.773 men and 2.763 women) from the town of Alfukaree in the Gaza Strip	-	Asamblea de Cooperacion por la Paz	17/October/2009	16/June/2010	0
15.	Irrigation network in Farun	-	International Committee of the Red Cross	06/June/2010	06/July/2010	0
16.	Land rehabilitation in Ramallah	-	International Committee of the Red Cross	31/May/2010	14/July/2010	0
17.	Livelihoods support for herders affected by the north Jordan Valley fire	Office For the Coordination of Humanitarian Affairs	Agency for Technical Cooperation and Development	01/June/2010	31/October/2010	74,635
18.	Middle East Regional Agricultural Programme Phase 2	Middle East - Regional Agricultural Programme Phase II RCO	Ministry of Agriculture	01/January/2009	31/December/2010	2,055,000
19.	Mitigating high levels of food insecurity among vulnerable rural populations in the Gaza Strip through backyard production, protection of threatened agricultural livelihoods and Cash for Work.	ECHO	Asamblea de Cooperacion por la Paz	01/January/2011	30/September/2011	565,098
20.	Partial land rehabilitation programme 2010	-	International Committee of the Red Cross	07/January/2010	31/December/2010	0
21.	Planting lands in Qalqiliya	-	International Committee of the Red Cross	01/September/2009	04/November/2011	0
22.	Poverty alleviation	Arabic Organization for Agricultural Development	Arabic Organization for Agricultural Development	01/December/2003	31/January/2010	9,000
23.	Quick impact agricultural livelihood recovery	Canadian International development Agency	CARE International, West Bank/Gaza	17/July/2009	30/April/2011	2,595,200

24.	Reducing food insecurity in conflict affected communities in the West Bank	European Commission	CARE International, West Bank/Gaza	01/April/2010	31/March/2011	1,221,747
25.	Supporting early recovery of agricultural livelihoods in Gaza	U.S. Agency for International Development	CARE International, West Bank/Gaza	01/November/2009	30/April/2011	1,194,880
26.	Sustainable management of natural resources in the Middle East through renewable energy, protection of water resources and improving marketing with a 30% component of humanitarian aid	Spanish Cooperation	Asamblea de Cooperacion por la Paz	01/September/2010	30/September/2013	3,500,000
27.	Toward food sustainability in Gaza Strip	-	MAAN Development Center	01/October/2008	30/September/2011	0
28.	Utilization of reclaimed wastewater for olive irrigation	Middle East Regional Cooperation Programme	Palestinian Agricultural Relief Committees	01/July/2007	30/June/2012	653,600
29.	Waste water re-use in agriculture - Northern Gaza & Khanyounis	-	International Committee of the Red Cross	10/January/2010	31/December/2010	0

## Annex6: List of organizations contributed to NAP/IFS formulation

### 1. Ministries and governmental organizations

- Ministry of Agriculture
- Ministry of Planning and Administrative development
- Ministry of Transport and Transportation/Metrological department
- Ministry of Local Government
- Ministry of Education and Higher Education
- Ministry of National Economy
- Ministry of Social Affairs
- Water Authority
- Palestinian Central Bureau of Statistics

### 2. Research centers /universities and private sector

- AN-Najah National University
- Hebron University
- Palestinian Economic Research Institute "MAS"

### 3. Palestinian Environmental Nongovernmental Organization

- Applied Research Institute of Jerusalem
- Agriculture Development Association
- Land Research Center

### 4. International partners

- The Secretariat of United Nations Convention to Combat Desertification
- Global Mechanism
- United Nation Development Programme/programme for Assisting Palestinian People

### 5. National committee to combating desertification representative institutions

- Environment Quality Authority
- Ministry of Agriculture
- Ministry of Planning and Administrative development
- Ministry of Transport and Transportation/Metrological department
- Ministry of Local Government
- Ministry of Education and Higher Education
- Ministry of Public Works
- Land Authority
- Water Authority
- AN-Najah National University
- Hebron University
- Palestinian Trade Center
- Chamber of Commerce Union



