

Environment and Climate Change Policy Brief occupied Palestinian territory (oPt)

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Executive summary

This environmental and climate change Policy Brief has been written as an input to the Swedish results strategy process and in preparation of a new regional strategy document for the Palestinian territory; the West Bank and the Gaza strip. The result strategy is expected to cover the period 2014-2018.

The *purpose* is to briefly present key environmental and climate change challenges and opportunities. Furthermore, the brief proposes some issues for Sida to consider related to how the environmental challenges can be approached through development cooperation. The analysis was conducted as a desk study in February – March 2013 and is based on selected reports, research papers and statistics.

The key environmental challenges in the occupied Palestinian territory are related to water scarcity and water quality, land degradation, waste disposal and pollution. The Palestinian water sector suffers from under-investment, institutional fragmentation and supply constraints including limited access to own/shared water resources due to the Israeli occupation. Weak institutions, ineffective environmental legislation, unclear accountability, poor transparency and a lack of public access and participation further exacerbate the situation of the PA to fulfil their obligations towards the Palestinian people.

The water situation is particularly acute in Gaza and for example 26 per cent of all diseases observed in the area are water-related. Resilience to both climate change and food security is generally weak throughout the oPt, and climate change is expected to add to already existing stresses. These challenges cause negative trends to poverty, health, economy and ecological and human resilience

The annual water share of Palestinians is less than 200m³ per capita which is largely under the water scarcity limit of 500m³ set by the World Health Organisation. Given the importance of agriculture as both a labour sector and for food security, reduced access to land and markets also constrain Palestinian livelihoods.

Identified consequences of environment and climate related problems are serious health issues, food insecurity and limited opportunities for commercial development and private enterprises as well as disruption of ecosystem services.

The availability of and access to food depend substantially on the capacity of social safety nets mechanisms, both traditional household-based ones and those provided by the international community. To a large extent, food security in Palestine is linked to poverty and 'cash and food assistance'.

Restoring and improving ecosystems functions and the services they provide can improve food security in both urban and rural areas of the oPt. Strengthening of the infrastructure, which is necessary for small-scale agriculture, can increase food security as well as enhance women's economic independence and social status. A resilience approach can contribute to reduce peoples' vulnerabilities to risks and shocks and rights based approaches can be useful to explore conditions under which rights can be asserted.

The economy is highly dependent on aid and is constrained by the conflict, restrictions of the movement of people and goods and political risks that prevent private investments. Energy demand and electricity is another limiting factor for development in the oPt. Water pollution, insufficient waste management and unsustainable use of water, grazing areas and agricultural

lands have both short term and long term economic impacts, and constrained access to water for agriculture reduces yields and prospects for agricultural growth even further. A move towards a green economy in a Palestinian context must address the water situation which is strongly linked to the political situation. Important elements for a green economy are for example equitable and efficient prices of water, energy and electricity, sustainable agricultural practices, and increased use of renewable energy resources such as wind and solar energy.

Environment and climate change is not mainstreamed in the overall policy framework and the areas of responsibility of the Ministry of Environmental Affairs (MEnA) are given low priority and a low budget share by the Palestinian Authority. The most important challenge in relation to environmental governance is the prevailing conflict and PNA's limited control over its natural resources, especially land and water. Investments in various forms of water infrastructure, and a stronger capacity to assess environmental and climate risks and opportunities in decision-making, are important steps for an economic development and sustainable management of the oPt's natural resources to ensure the Palestinians peoples basic rights now and in the future.

Governance aspects have a strong effect on environmental actions and outcomes and needs to be considered when aiming at improving implementation of environmental legislation and other environmental measures. A positive trend is a significant improvement of the governance indicators 'Government effectiveness' and 'Regulatory quality' of the PA. The decline of the indicator 'Voice and accountability' is on the other hand alarming.

Continued Swedish support in the water and environment sector respond to significant needs. Improved public capacity to manage water and other natural resources is essential to the realisation of basic human rights, including the rights to food, health and even life itself. Also, a human rights framework that ensures transparency and empowers citizens to contribute to the management of natural resources can help to achieve environmental goals.

Given the fundamental importance of improved management of water resources in the oPt, to ensure access to safe water, the existing MDG targets, objectives and indicators, such as proportion of total water resources used, access to safe drinking water and basic sanitation, are of high relevance. Work in these areas should be cross-sectoral and go beyond water infrastructure development and can include waste management, waste water treatment, sustainable agricultural practices, transboundary water resources management, hygiene and climate change adaptation and resilience.

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1. Introduction

This environmental and climate change Policy Brief has been written as an input to the Swedish results strategy process and in preparation of a new regional strategy document for the occupied Palestine territory (oPt)¹. The regional results strategy is expected to cover the period 2014-2018.

The purpose of this brief is to briefly present key environmental and climate change challenges and opportunities in Palestine. Furthermore, the brief suggests issues for Sida to consider related to how the environmental challenges can be approached through development cooperation. The analysis was conducted as a desk study in February-March 2013 and is based on selected reports, research papers and statistics.

The Swedish Government has identified environment and climate change as one of three thematic priorities for development cooperation in oPt. This is reinforced in the Swedish policy on environment and climate change in development cooperation concluding that these aspects are a “central point of departure for all development cooperation”². The Policy further requires that environmental impacts, effects of climate change and associated risks are assessed and integrated in analysis, planning, strategies, implementation and follow-up in Swedish development cooperation.

The Swedish government has prioritised three entry points (in Swedish “ingångsvärden”) to develop its results strategy on. Following is the entry point encompassing specifically environment: *Efficient and developed infrastructure, focusing on environment- and water, which is fulfilling the basic need of the Palestinian people.*

The other two entry points are:

Increased functionality and transparency for democratic institutions fight corruption, in particular within the legal system and the security area, as well as human rights.

Long-term and stable finances through sustainable economic growth, increased tax base, and private sector development.

2. Key environmental challenges, their causes and opportunities³

The environmental situation in occupied Palestinian territory is difficult and faced with many problems such as the scarcity of water and land resources, rapid population growth, pollution of the aquifers and marine environment, desertification and land degradation⁴. Climate change further amplifies the existing water related problems.

The oPt is the smallest region in the Middle East and has common borders with Egypt, Jordan and Israel. The oPt is composed of the West Bank and the Gaza strip, two separate territories separated physically by Israel. The division of the West Bank into area A (Palestinian

¹ This Environmental and Climate Change Policy Brief was written, at the request of Sida (Lisa Hellström, by Olof Drakenberg and Hanna Wolf at Sida’s Helpdesk for Environment and Climate Change. Alice Jaraiseh from Stockholm International Water Institute was contracted as an expert to contribute to the policy brief. The views expressed in this Environmental and Climate Change Policy Brief are those of the authors and do not necessarily represent the views of Sida.

² Swedish Government Offices, 2009

³ The background information in the policy brief builds to a great extent on the report *Environment and Security* (if no other sources are referred to) published by Soï Environment Network in 2012.

⁴ MenA, 2011

control), B (shared control) and C (Israeli control) intended to be a temporary interim solution, but is still in practice. Consequently, the Palestinian Authority (PA) still only controls 18 % of the Palestinian territory. Gaza is since 2007 governed by Hamas creating two separately governed areas within the oPt. Gaza is under non-contact policy of the USA and EU which severely limits the possibilities of support to Gaza and as a consequence the gap between area A and the rest of oPt (area B, C, East Jerusalem, Gaza and the seam zones) is increasing.

Area C, which comprises 60% of the West Bank, is of vital importance to the entire Palestinian population as it contains important grazing, agricultural land, and water resources. This is also the land reserves necessary for the expansion of the Palestinian population centres in area A and B. Today 8% of Palestinian agricultural land is located on the west (Israeli) side of the barrier, which means that thousands of Palestinians have difficulties accessing their fields.

Climate

The climate in the oPt is mainly Mediterranean with an average annual rainfall ranging from 300 to 410mm in the Gaza Strip and West Bank, respectively. The climatic zones; arid, semi-arid, and desert, geo-constitute almost 85 per cent of the overall lands. The various climate zones, combined with the area's geographic location close to Africa, Asia, and Europe, have made it historically rich in biodiversity. The Dead Sea basin and the Wadi Gaza wetland are unique ecosystems but threatened by the destruction of natural habitats, the over-exploitation of resources, the multifaceted environmental pollution, and by the territorial fragmentation that prevents animal movement.

Water

Both quantity and quality of water accessible to the Palestinian population is a significant issue. Aquifers are the main source of water but these are often overused, inaccessible, or polluted. The annual water share of Palestinians is less than 200m³ per capita which is largely under the water scarcity limit of 500m³ set by the World Health Organisation (WHO). Water resources in oPt are almost under complete control of Israel, Palestine controls just 21% of its water resources⁵.

In the West Bank, the main natural water resources are the underground mountain aquifer – comprising the Eastern, North-Eastern and Western basins – and the Jordan River. Both straddle the 1967 border separating the oPt from Israel and as such, both are classified as shared or trans-boundary water resources. The same also holds for the Coastal aquifer that runs along the Mediterranean coast and under Gaza. Under customary international water law, these trans-boundary water resources should be shared “equitably and reasonably” between Palestinians and Israelis. In practice, however, Israel exploits over 90 per cent of all transboundary water resources for exclusive Israeli use, and allocates less than 10 per cent for Palestinian use. In Gaza, Palestinians only source of water is the coastal aquifer, which runs underneath the Gaza Strip and Israel and extends down into the Egyptian Sinai. Gaza's population cannot access or utilize the water from Wadi Gaza, and under a continuous land, air and sea blockade that prevents both access to, as well as the development of alternative water sources, Gaza's population presently extracts almost three times more from the aquifer than what is sustainable⁶.

⁵ The Palestinian National Authority, 2012

⁶ PWA, 2012a

Water scarcity is exacerbated by conflict conditions and the impacts of climate change. The Palestinian water sector suffers from under-investment, institutional fragmentation and supply constraints including lack of access to own/shared water resources due to the Israeli occupation⁷.

Underground water resources in the Gaza Strip have become excessively overexploited, saline and contaminated. In the West Bank, water resources are increasingly exposed to contamination due to inadequate wastewater collection and disposal⁸. Wastewater network services are provided to only 35% of the West Bank population and 65% of the Gaza Strip population⁹.

Land resources

Reduced access to land and markets constrain Palestinian livelihoods. This is critical given the importance of agriculture as both a labour sector and for food security. The separation wall has led to the removal of fruit trees and other species. The reduced land available has been placed under heavy stress and is used unsustainably leading to degradation and desertification. The Israeli separation wall is estimated to deprive Palestinians of almost 50 per cent of their forests and natural protected areas and up to 28% of their agricultural production. The Eastern portion of the wall will block access to about 275ha of Palestinian land, which comprises one fifth of Palestinian agricultural production, and about 88 per cent of rangelands. See Table 1 below.

Table 1: Land use in the oPt¹⁰

Land use	West Bank area (km ²)	% of the total area	Gaza Strip area (km ²)	% of the total area	Total area (km ²)
Arable lands	2361.3	42.5	197.9	54.5	2559.2
Rangelands	753.7	12.5	-	-	753.7
Forests and wooded areas	78.9	1.3	-	-	78.9
Private plant cover lands	213.8	3.7	7.6	2.1	221.4
Open spaces with little or no vegetation	1693.6	29.3	71.4	19.7	1765
Palestinian built-up areas	314.2	6.6	82.3	22.7	396.5
Israeli settlements and Separation Wall	244.3	4.1	-	-	244.3
Internal water	1.3	0	0.9	0.3	2.2
TOTAL	5661.1	100	360.1	100	6021.2

Marine resources

Since the beginning of the Palestinian Second Intifada in 2000, Palestinians' access to the Mediterranean Sea has been increasingly restricted by Israel, impacting their economy, food security, and the potential to generate water through desalination or treat it through sewage plants. Since December 2008 Israel has imposed a sea border on Gaza of three nautical miles, affecting fishermen and reducing the fish catch in the Gaza Strip. The pollution of the Mediterranean Sea and the Dead Sea caused by the evacuation of untreated wastewater is a serious environmental problem which has severe consequences on the water bodies ecological

⁷ EU, 2010

⁸ PWA 2012b

⁹ PWA, 2010

¹⁰ ARIJ 2006

functioning and long-term sustainability. Despite the fact that the oPt is a riparian of the Dead Sea, it has no right to benefit from its natural resources or touristic potential.

Energy

The Palestinian domestic resources are restricted to limited production of biomass, small private electricity generation and solar energy. The energy sector relies to a large extent on imported energy, either directly from Israel or under the supervision of the Israeli authorities for oil products, but also from illegal imports of Egyptian oil to Gaza¹¹. About 95% of the Palestinian electricity is generated by the Israel Electricity Corporation (IEC). The rest is produced privately, mainly in the remote regions. The efficiency of the distribution utilities is poor and the transformation and distribution losses range from 25% to as high as 30-35%¹².

Biodiversity

The biological and genetic resources in the oPt is rich but under increasing pressure. More than 900 plant species in the territories are threatened, of which about 300 species are on the Red List of Endangered Species of the IUCN. All aquatic birds nesting, breeding, or passing by the wetland system of Wadi Gaza have been called extremely threatened.

Untreated or partially treated wastewater, the uncontrolled dumping of untreated solid toxic waste, and the surface runoff of highly polluted agricultural waste, generates large-scale environmental pollution that contribute to biodiversity decline. Habitat destruction caused by deforestation, overgrazing, overfishing, excavation of sand dunes, coastal marine pollution, and the expansion of urban centres, are among the most significant threats to biodiversity in the oPt¹³.

Climate Change

All the above factors – water, land, energy and biodiversity – are threatened by climate change. The already arid region could become drier and unpredictable weather patterns will place additional pressure on resources and require a highly adaptive population. Drought induced by climate change may endanger agro-biodiversity and the balanced ecosystems that many species are reliable on. Potential implications are higher sea levels, an increase of more than 3° C in the region, and changes in precipitation.

Even though climate change is not the most pressing issue for Palestinians in the West Bank and Gaza, the climate risks are significant and will compound the current hazards already facing the Palestinian people.

3. What are the effects of the environmental problems – link to perspectives of the poor and the rights perspective

Human rights and the link to sustainable development in Palestinian territory

Natural capital like natural resources, ecosystems, ecosystem services and climate is the basis for human existence and activity. Changes in the environment and the climate have the greatest impact on the people living in poverty, people whose resilience to such changes is

¹¹ Sherwood, H. 2012

¹² EU, 2004

¹³ Ecosystem functioning (e.g., productivity, nutrient cycling) and ecosystem stability (i.e., temporal invariability of productivity) depend on biodiversity. Thus, biodiversity declines may diminish human wellbeing by decreasing the services that ecosystems can provide for people, Millennium Ecosystem Assessment 2005

very weak. Environmental degradation, in addition to violation of political rights, could be considered as violations of basic human rights and a number of international protocols and agreements¹⁴. Strengthening the judicial awareness of the different stakeholders aims at enhancing the humanitarian coordination and advocacy of the Palestinian people and to support their claims to their land and other resources. The lack of capacity of governments (or in many cases in the oPt, service providers such as NGOs) to fulfil their obligations, and the lack of capacity of the concerned women, men, girls and boys to claim and exercise their rights are the main obstacles to the realisation of environment-related human rights. Weak institutions, ineffective environmental legislation, unclear accountability, poor transparency and a lack of public access and participation further exacerbate the situation¹⁵.

Civil society organisations, intergovernmental organisation, UN agencies, and government agencies have all important roles and responsibilities in creating an environment in which people can both exercise their rights to water and assume accountability for management of e.g. water. Anyone who exercises rights to a natural resource, be it water, land or forest, must also assume a degree of accountability for the management of that resource. Rights based approaches (RBAs) explore conditions under which rights can be asserted and local level accountability assume¹⁶.

Food, security, poverty and natural resources

Food security¹⁷ in Palestine is to a large extent linked to poverty. Cash and food assistance have had an impact on reducing poverty rates. The available data show that the percentage of households nationally lacking food security was 27% in 2011 (44% in the Gaza Strip and 17% in the West Bank). There has been a considerable improvement in food security compared with 2009 and 2010: the percentage of households without food security totalled 33% nationally in 2010 (52% in the Gaza Strip and 22% in the West Bank), while in 2009, the percentage nationally was 36% (60% in the Gaza Strip and 22% in the West Bank). The gap in food security rates between the Gaza Strip and the West Bank is linked to the same factors that produce the gap in poverty rates. Improvements in food security levels between 2009 and 2011 were due to the cash and in-kind assistance offered by PNA programs where the number of beneficiaries has increased at a steady pace, in addition to the assistance programs implemented by international organisations, especially in the Gaza Strip.

Agro-ecosystems and natural ecosystems are essential for food security and livelihood. Restoring and improving ecosystems functions and the services they provide are therefore one element to building food security in the rural areas of the oPt. But also in the urban areas, urban gardening with e.g. small-scale food production is important, such as e.g. breeding of rabbits, chickens or doves as well as growing vegetables and herbs. Strengthening the infrastructure necessary for small-scale agriculture can not only give increased food security but also enhance women's economic independence and social status¹⁸.

In an attempt to serve the foreign markets, farmers in Gaza and the West Bank adopted in the 1990s, new agricultural technologies and practiced a significant shift, in irrigated and rain-fed

¹⁴ Hassouna, M., Sinclair, Z., 2012

¹⁵ Sida, 2012

¹⁶ Campese, J. (ed); et al., 2009

¹⁷ Definition used by Committee on World Food Security: Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability.

¹⁸ E.g. in line with some FAO initiatives:
www.fao.org/fileadmin/templates/tc/tce/pdf/CAP2011_WestBankGazaStrip.pdf

farming respectively, from fruit trees to high cash-value crops (vegetables and flowers) and from field crops to olives¹⁹. As a result, Palestine has moved away from agricultural food security. While exporting a limited number of vegetables, olives and citrus, there is a need for import of field crops and certain types of fruits and vegetables. These shifts also led to an increase in the use of water, fertilisers and pesticides. The production shift in the Palestinian territory towards export-oriented markets is now a huge challenge as a consequent of the economic collapse, together with Israel's closure policy. Barriers to food imports, and the blockade has cut off export earnings from produce (e.g., strawberries, oranges, and cut flowers) formerly destined for Israel, Egypt, and Europe which has left many Palestinians in Gaza dependent – to some extent at least – on foreign aid to survive²⁰. Due to the isolation of the Gaza Strip from the West Bank, agricultural products have been banned from export abroad and fishermen are banned from fishing²¹. Food insecurity has though to some extent brought Palestinians back to the earlier practices of domestic agriculture also in the more urban areas²². Energy demand and electricity is another limiting factor for development in the oPt. By 2020, electricity provision will need to double to meet the demand in Gaza, see table 1 below. Table 2 also show the increased stress on resources, fundamental infrastructure in electricity, water and sanitation, municipal and social services due to continued population growth to around 2.1 million 2020 from an estimated 1.6 million today²³.

In a resilience perspective, the situation could be viewed as the shift in agriculture practices that made the Palestinians more vulnerable. Exploring new ways, or reintroducing old agricultural habits and products, the resilience of the people can increase by e.g. more diversified production. Throughout the oPt, the overall structure of food security resilience is different in the different areas. In the richest and more stable area (East Jerusalem), most resilience depends on income capacity and access to services and stability. The Gaza Strip shows very limited access to food and income, and a high level of dependency on safety nets (from both family ties and external assistance) as well as from PA services. South West Bank has got low level of resilience and low level of adaptive capacity. North and Mid-West Bank also have low level of resilience but with better access to income and food access than the Gaza strip. The availability of and access to food depend substantially on the capacity of social safety nets mechanisms, both traditional household-based ones and those provided by the international community. Physical access to markets influences the overall capacity of households in the Gaza Strip to bounce back after acute crises²⁴.

¹⁹ One survey found that the area covered by greenhouses increased from 3940 dunum (a land area unit, approx. 1000 m²) in 1991/92 to 14000 dunum in 2004 in Laeremans, L., Sourani, A. 2006.

²⁰ Laeremans, L., Sourani, A., 2006

²¹ The Palestinian National Authority, 2012

²² Laeremans, L., Sourani, A., 2006

²³ UN, 2012

²⁴ Alinovi, L., et al., 2009

Table 2. What the Future Holds for Gaza²⁵

Indicator	Projection
Economy – Real GDP <i>per capita</i>	US\$ 1,273 in 2015, still less than in the 1990s
Population – Size	2.13 million people in 2020, about 500,000 more than today
Population – Density	5,835 people per km ² in 2020
Water – Aquifer	May become unusable by 2016 and damage to it irreversible by 2020
Water – Demand	260 million cubic metres in 2020, an increase of about 60% from today
Education – Schools	250 additional schools are needed now and another 190 by 2020
Health – Hospital beds	800 additional beds needed by 2020 to maintain current levels of service
Health – Personnel	Over 1,000 additional doctors and 2,000 nurses needed by 2020

Impacts on economic development

The economy in oPt is dominated by the service sector that accounts for 81% of GDP, followed by industry, 12 % and agriculture 6%. The economy is highly dependent on aid and is constrained by the conflict, restrictions for the movement of people and goods and political risks that deter private investments. In recent years the economy has grown significantly more in the West Bank than in Gaza. Water pollution, insufficient waste management and unsustainable use of water, grazing areas and agricultural lands have both short term and long term economic impacts. The most significant short term impacts are associated with bad health, such as diarrhoea, that affect school attendance and participation in economic activities. Constrained access to water for agriculture further reduces yields and prospects for agricultural growth. Restricted access to water resources due to Israeli occupation have resulted in foregone agricultural production and additional health costs in the order of 1,9 billion USD (23,4% of GDP).²⁶ It should be noted that this figure does not specify if a non-restricted access to water would be sustainable or not. In this context the figure illustrate the significant importance of access to natural resources like agricultural lands and well managed water resources for economic development. The water situation in Gaza is particularly alarming and will have large economic impacts²⁷. Current Israeli restrictions contribute further to the overuse of limited resources, depleting of soil nutrients and fresh water resources thus reducing the asset base upon which a significant part of the economy depends. More than 3000 fishermen in Gaza do not have access to 85% of the maritime areas agreed in the 1995 Oslo Accords. As a result, fish catch has decreased dramatically²⁸.

The agricultural sector is still considered a cornerstone in poverty alleviation and food security provision in the oPt. It is also seen as a way to protect land from confiscation and settlements. Climate change is expected to negatively impact the Palestinian economy. Reduced productivity from the agriculture sector will result in a significant loss of livelihood and food insecurity for many Palestinians and further force food prices upwards.

²⁵ UN, 2012

²⁶ UN Seminar, 2012.

²⁷ "The fresh water aquifer could become unusable as early as 2016, with the damage irreversible by 2020".

UNEP recommends ceasing abstraction immediately as it would otherwise take centuries for the aquifer to recover. Even with remedial action now to cease abstraction, the aquifer will take decades to recover according to a report by the UN country team in the occupied Palestinian territory, August 2012.

²⁸ Office of the United National Special Coordinator for the Middle East Peace Process, 2012a

Impacts on Public Health (and Education)

WHO estimated that 90-95 per cent of water distributed in the Gaza Strip is unfit for human consumption due to levels exceeding its recommended values for one or more contaminants. In the Gaza area, 26 per cent of all diseases observed in the area are water-related among which acute bloody diarrhoea, viral hepatitis, liver and kidney diseases, methemoglobinemia (blue baby syndrome), and anaemia are the most common. The number of cancer cases is high in the Gaza Strip, with agglomerations occurring next to agricultural areas where water supplies are highly contaminated with traces of phytosanitary by-products. The contaminants multiplied by about 400 per cent over the period 1990-1998²⁹.

Environmental health includes aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychological factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations. Response measures include water management, infectious disease control and health education³⁰. Population behaviour may be the main cause of a health problem, but it can also be the main solution. When a problem affects many people in a community, health education and health campaign are needed to promote knowledge, skills, attitudes and values relating to particular health issues.

In Palestine there are 27 refugee camps: 8 in the Gaza Strip with 1,204,850 refugees³¹ and 19 camps in the West Bank with 868,842 refugees. Housing in Palestinian refugee camps is characterised by high population density, small size homes, inadequate ventilation and little sunlight getting into the houses. Improving environmental health in this situation is an important consideration³².

The education of boys and girls in schools and in higher education is compromised by conditions and behaviours that undermine the physical and emotional well-being that makes learning possible. The impacts of environmental problems on education can lead to low school attendance and absence. Schools can take a supporting role in the provision of essential health education and services.

4. Policy framework for managing environmental challenges

International obligations

Palestine has an observer status in the UN but is not a signatory party to international and regional environmental conventions, agreements or financing mechanisms. This means that the oPt is not eligible to benefit from any possible available funds from the international environment financing mechanisms for environment programs. Hence, this is among the priority elements that need and ought to be addressed as a priority as the Palestinian Authority embarks on the establishment of a Palestinian State³³. Through the UN General Assembly vote in 2012 when the Palestine achieved observer state status, the Palestinians is provided with higher speaking priority than their previous status. It also implies increased

²⁹ Hassouna, M., Sinclair, Z., 2012

³⁰ Tayser AM., Abu, M., 2006, The impact of an environmental health and awareness program on Palestinian refugees of Nuseirat Camp: A one-year-after report, The Journal of Environmental Health Research, Volume:5, Issue:1, Chartered Institute of Environmental Health (CIEH), 2006.

³¹ People registered to receive UNRWA services.

³² UNRWA, 2012

³³ UNDP (2011), *Capacity Analysis of EQA*, April 2011

representation in the UN programs and funds, and the ability to accede to international treaties and conventions³⁴.

Through this change, it is now arguable that all established norms of customary international law, including those found in International Environmental Law, would be applicable to Palestine. However, this fact should be viewed through the International Humanitarian Law perspective - relating to obligations and responsibilities of Occupying Powers who have the obligation to provide basic services for the occupied people. International Environmental Law norms, that are agreed to be part of Customary International Law, would then have to be responsibly applied and maintained by the Occupying Power. This can only be general, but importantly Palestine now has the capacity to join International Environment Conventions going beyond an application of customary international law norms.

National priorities

In August 1998, the President of the PNA appointed a state Minister for Environment and issued a decree that gave the Minister authorization over the Palestinian Environmental Authority (PEEnA). However it took 14 years for PEEnA to merge in a Ministry of Environmental Affairs (MEnA). The Palestinian Environmental Law that was enacted in 1999 is the main institutional framework in place to regulate the sector. There is also the Biodiversity Strategy and Action Plan which aims at increasing the capacity of MEnA in the integration of conservation of biodiversity in national policies. Furthermore, MEnA has several agreements and memoranda of understanding with the Ministry of Planning and International Cooperation, the Ministry of Health, and the Ministry of Agriculture on the transfer of responsibilities over the environmental issues.

Over the next three years MEnA has identified five priority areas which efforts will focus on:

1. Building and Strengthening the Capacity of Environmental Institutions
2. Rational use of Natural Resource
3. Protection and Conservation of Natural Reserves
4. Pollution Control
5. Regulations and Amendments of Awareness Raising

One important task of MEnA will be to develop and update National Environmental Action Plans linking between the economic development and its environmental impact along with setting priorities for actions. The main challenge will be setting up integrated sector policies fitting with the imposed scarcity of land and water resources, and at the same time focusing on confining the use along with increasing the supply.

MEnA has stated that it is determined to limit depletion of environmental resources and aims to enhance its capacities to fulfil its mandate. However, the institution suffers from the lack of institutional tools like specialized work processes, procedures and equipment that enable it to fulfil its role. In addition, there is a lack of technical staff required for environmental monitoring, inspection and auditing, besides lack of adequate equipment and infrastructure which is needed for enabling processes to protect and mitigate the Palestinian environment³⁵.

There are great capacity constraints within the environmental sector especially following from the closure of PEEnA in Gaza. This has partly led to responsibilities falling on municipalities to address local environmental issues and on other national authorities and ministries such as the

³⁴ CIA homepage: *World Fact book, West Bank*, accessed March 2013.

³⁵ UNDP, 2011

Palestinian Water Authority and the Ministry of Agriculture to address issues related to water and land management respectively.

UNDP has carried out a comprehensive capacity assessment of the PEnA which was published in April 2011. One of the main capacity constraints identified by this study is the lack of ability to take the lead and coordinate with other ministries to ensure that other national policies and regulations apply with the environmental law. This is amplified by the weak networking capacity, and a lack of both internal and external communication.

Mainstreaming environment and climate change in the policy framework

There is a strong need of setting up legal and institutional frameworks ensuring clear distribution of responsibilities between stakeholders, as well as developing working procedures with full coordination and cooperation between all parties. This process must include strengthening the capacity of staff working in other relevant sectors, including public agencies to formulate and implement environmental strategies and policies.

Governance, enforcement and implementation

MEnA has the mandate to issue policies, regulations and standards concerning the different environmental fields, but there is still a lack of enforcement related to the weak governance systems in place. There is an intention to develop a comprehensive and participatory Awareness Programme addressing all aspects of environment in Palestine, which would benefit the implementation processes as well. There should also be an introduction to the Environment Impact Assessment principal, ensuring the proper use of this method for any new projects as a tool to reduce pollution and unnecessary consumption of natural resources. Furthermore, the guidelines and regulations to control pollution and protect the Palestinian environment need to be reviewed and updated. This will benefit the process of dealing with Hot Spots, which pose threats to public health or causes irreversible damage to the environment. Moreover, MEnA is considering applying the “polluter pays principal” in licencing procedures and legal framework to abolish environmental damage.

A joint Joint Water Committee (JWC) is established between Israel and the Palestinian territory since 1995 and an equal number of participants by the two parties. Even though the JWC facilitates cooperation even during conflicts the JWC is not conflict free and is characterised by power asymmetry^{36,37}.

Governance aspects need to be considered when aiming at improving implementation of environmental legislation and other environmental measures. There is a growing consensus emphasising that governance aspects have a strong effect on environmental actions and outcomes. Measures that strengthen important human rights principles such as the rule of law, transparency and public participation may be equally or more important than specific environmental policies or projects in order to improve environmental outcomes. Improving environmental outcomes is thus not only dependent on legal frameworks and the capacities of the environmental authorities and sector ministries, but also largely on external factors that provide the ‘enabling environment’ (see table 3 below).

³⁶ Kramer, A. 2008

³⁷ Jägerskog, A. 2006

Table 3. Internal and external aspects to strengthen environmental governance³⁸

Environmental authorities (internal aspects)	Enabling environment (external aspects)
Policy development (policies, laws, regulations, policy instrument)	Knowledge and information about the importance of environment and climate change
Policy implementation (inspection, compliance and enforcement)	Environmental management is a prioritised policy issue
Research and assessment (research, evaluation, environmental information systems)	Environmental regulations with clearly defined responsibilities
Environmental integration (sector responsibility, producer responsibility)	Horizontal and vertical communication Rule of Law, low corruption
Operational support (organisational development, human resources, finance and accounting)	Access to information, public participation, accountability
	Environmental constituencies demanding improved environmental management

The EU through Sweden is co-chair of the Environment Sector Working Group (ESWG), along with MENA, and with UNDP providing Technical Assistance to the MENA. There is uncertainty about MENA’s capacity and ownership for the sector working group. There is a need to strengthen the PNA’s capacity to manage natural resources and critical ecosystem services in order to ensure the Palestinians peoples basic rights now and in the future, and a stronger MENA is an important element for achieving that.

The MENA has stated that it is determined to limit depletion of environmental resources and aims to enhance its capacities to fulfil its mandate. UNDP has carried out a comprehensive capacity assessment of the MENA which was published in April 2011. One of the main capacity constraints identified by this study is the lack of ability to take the lead and coordinate with other ministries to ensure other national policies and regulations apply with the environmental law. This is amplified by the weak networking capacity, and a lack of both internal and external communication. However, the institution suffers from lack of institutional tools like specialized work processes, procedures and equipment that enable it to fulfil its role. In addition, there is a lack of technical staff required for environmental monitoring, inspection and auditing, besides lack adequate equipment and infrastructure which is needed for enabling processes to protect and mitigate the Palestinian environment.

The Worldwide Governance Indicators (WGI) can provide a trend over time on different governance indicators. The indicators are: ‘Voice and accountability’, ‘Political stability and absence of violence and terrorism’, ‘Government effectiveness’, ‘Regulatory quality’, ‘Rule of law’, and ‘Control of corruption’.³⁹

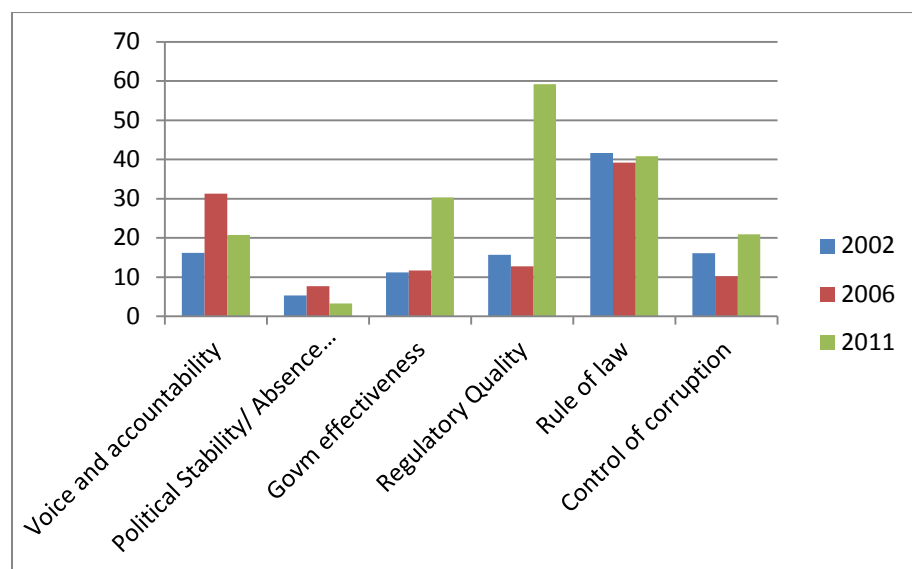
As can be seen from Figure 1 the trend over time in The West Bank and Gaza show a significant improvement of the indicators ‘Government effectiveness’ and ‘Regulatory

³⁸ Drakenberg & Slunge, 2011

³⁹ The WGI is a useful tool for broad cross-country comparison and for evaluating broad trends over time. However, the data is not intended to be used for formulating specific governance reforms in a particular country context. Such reforms need to be informed by much more detailed and country specific information. Furthermore, the data should be treated with care as it involves uncertainties and builds on statistical compilations of responses from a large number of stakeholders.

quality'. Government effectiveness reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Regulatory quality reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Worth noting is the decline of the indicator 'Voice and accountability' that reflects the perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Figure 1. Governance indicators in West Bank and Gaza (2002, 2006, 2011)⁴⁰



Improved accountability, transparency, public participation and integrity can reduce the risk for corruption and create trust and legitimacy which facilitates implementation of different policy instruments and lead to e.g. positive environmental outcomes. If efforts to improve environmental policies should have the intended effects they must go hand in hand with efforts to reduce corruption⁴¹.

Other actors

The international donors are quite active on both ad hoc project oriented basis (World Bank's Solid Waste projects) and strategic initiatives (Japanese funded UNDP initiative to develop a protocol between Israel and Palestine on waste water issues). Also local NGOs are addressing different environmental issues such as developing and sustaining natural resources, raising environmental awareness, protecting wildlife, preventing desertification, combating environmental pollution, developing and maintaining archaeological sites, eco & environmental tourism, as well as developing alternative and renewable energy. The Palestinian Environmental NGOs Network (PENGON) established in 1996 is coordinating these scattered efforts of the different Palestinian NGOs working in the field of environment.

⁴⁰ Kaufmann D., et al., 2010

⁴¹ Ölund Wingqvist, G. et al., 2012

5. Risks and opportunities

The Israeli-Palestinian conflict and the intra-Palestinian conflicts are the overall risks for all development cooperation in the oPt with consequences in all sectors.

Water scarcity, political unrest, Israeli restrictive measures, and the institutional weakness of the PNA are the driving forces of the chronic water crisis in the oPt and is seriously challenging its future improvement. Although water is seldom the sole cause of disputes, it can act as both an irritant (make good relations bad and bad relations worse) and a unifier (in basins with relatively strong institutions). Water governance in the Middle East is severely hampered by the instable political situation, and cooperation around shared water resources is intimately linked to politics and issues of sovereignty. The current water crisis in the oPt is expected to further worsen as a result of the demographic expansion, the deficient water transportation and distribution systems, and the continuous deterioration of water resources also due to climate change. In general, however, the most important challenge in relation to the environment remains the PNA capacity to control its natural resources, especially land and water, in order to implement plans and strategies for environmental protection and sustainability for future generations⁴².

In recent years, the government has made achievements in governance, e.g. building of institutions with mechanisms to monitor performance. The government has also become more transparent and accountable to the public through the publication of data and information, including statements of budgets and spending⁴³. In regard to the economy, the government has established trade agreements with many countries. In addition, it has succeeded in establishing a legal environment that enables private sector growth. The government has also developed public water and wastewater infrastructure, energy projects and road construction. Nonetheless, all these achievements remain vulnerable to Israeli policies that limit the implementation of projects in Area C, in East Jerusalem and in the Gaza Strip. Nevertheless, more substantial progress would have been possible in all areas if the PNA had full control over the land and the available natural resources⁴⁴.

As can be noted in many places in the world when it comes to risks, people develop coping mechanisms. Gaza residents have developed several mechanisms to cope with climate vulnerability. Some of these mechanisms are impaired by the Israeli occupation, while others are imposed by extreme conditions of life. Coping with the water crisis within the agriculture sector is evident in the selection of less water-intensive and more salt-resistant crops, such as date palms. This practice is in fact a return to tradition, as water-intensive citrus production began during Israeli settlement in Gaza. Similarly, the lack of chemical fertilizers has led farmers to rediscover organic methods and to use partially treated wastewater. Shortages of cooking gas have encouraged solar food-drying pilot projects⁴⁵.

PA has limited institutional capacity for disaster risk reduction, which enhance the climate vulnerability as a humanitarian concern and sustains the “emergency imaginary” of chronic human insecurity in the oPt. This reproduces the dependence of the population on international assistance as well as the interventions of external actors. However, donors are increasingly interested in financing climate-change adaptation and mitigation activities in the oPt and UNDP has taken lead as the main channel for international (both multilateral and bilateral) aid to Gaza and the West Bank.

⁴² The Palestinian National Authority, 2012

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ Mason, M., et al., 2012

UNDP is working to support the PA capacity-building and also reinforces the technical-managerial framing of climate vulnerability. Developing Palestine's administrative capacity for climate risk management has become another opportunity to inculcate "good governance" norms into the PA supportive of the Quartet agenda; that is, the existence of a Palestinian Authority coexisting peacefully with Israel while embracing democratic governance and market liberalism^{46,47}.

6. Issues for Sida to consider

This chapter addresses a number of issues, such as human rights, the MDG 7, green growth, and resilience, raised by the Embassy and how the Swedish support can integrate environment and climate change within different areas of cooperation. As input to further discussions at the Embassy tentative ideas on specific results are also presented.

Human rights and the link to sustainable development in Palestinian territory

The entry point within the environment sector is interesting and highly relevant in the Palestinian context since it both points to achieving results within the much needed area of water and supporting infrastructure as well as supporting other initiatives within the environmental sector in order to ensure basic human rights. Together with the two other entry points, results are likely to achieve more sustainable management of natural resources in the occupied Palestinian territory.

A Human Rights Based Approach when developing results and indicators could be interesting to explore which also links and creates synergies between Sida's thematic priorities. Applying the human rights principles in programs related to environmental sustainable development brings important benefits. The advantages of adopting a human rights-based approach include for example:

- *The inter-dependence of human rights and sustainable development.* Access to environmental protection is essential to the realisation of basic human rights, including the rights to food, health and even life itself. Therefore, a human rights framework that ensures transparency and empowers citizens to contribute to the management of natural resources will help to achieve environmental goals.
- *A framework for addressing conflicting rights and interests.* A human rights-based approach establishes processes and mechanisms to bring conflicting interest and rights into the open. The approach then seeks to resolve and correct areas where rights are violated.
- *An integrated approach:* Analysing environment and natural resource use issues through the human rights lens allows for a better understanding of how laws, social norms, traditional practices, and institutional actions positively or negatively affect these issues. This leads to more focused strategic interventions, which address the structural causes behind environment-related problems.

⁴⁶ Ibid

⁴⁷ Lessons should be taken from the UNDP experiences with working with climate change. In its climate initiative for the PA, UNDP represented Palestinian climate vulnerability as largely a technical-administrative challenge in the management of ecological risks, notably the increased risk of drought and water scarcity and their effects on agricultural livelihoods and public health. However, a series of UNDP-conducted consultations and workshops between November 2008 and August 2009 soon made this "postconflict" framing untenable. Feedback from government officials, scientists, and NGO representatives identified occupation-related conditions as constitutive of Palestinians' vulnerability to climate change

The lack of capacity of governments (or in many cases in the oPt, other service providers such as NGOs) to fulfil their obligations and the limited possibilities of the concerned women, men, girls and boys to claim and exercise their rights are the main obstacles to the realisation of environment-related human rights. Weak institutions, ineffective environmental legislation, unclear accountability, poor transparency, and a lack of public access and participation further exacerbate the situation.

Addressing MDG 7

The MDG 7, to *ensure environmental sustainability*, is divided into four targets and 10 indicators (see box in Appendix 3: MDG7 Generic info). Given the complexity of the concept and the diversity of the environmental challenges facing different countries, the targets are difficult to measure and it has been hard to agree on relevant indicators. The ongoing work with identifying post 2015 MDGs and Sustainable Development Goals (SDG) may well result in both more detailed and broader goals, targets and indicators. It is therefore preferable at this stage to interpret the MDG 7 in a broader sense, i.e. relating to environmental sustainability rather than merely looking at the officially adopted targets and indicators.

The Palestinian National Authority strategy to achieve the MDGs by 2015 underlines poverty, unemployment and food security as three of the major challenges faced in Palestine⁴⁸. *Special features of Palestinian priorities in protecting and sustaining the environment to achieve MDG 7 are the PNA's capacity to control its own natural resources*. The policies and interventions also focus on: detecting various sources of environmental pollution, amending behaviour related to the preservation of the environment, raising public awareness in this area, improving the management of wastewater and solid waste, regenerating nature reserves, preserving cultural heritage, enhancing measures to adapt to climate change, and fight desertification.

Given the fundamental importance of improved management of water resources in the oPt, to ensure access to safe water, existing MDG indicators, such as proportion of total water resources used, access to safe drinking water, and basic sanitation, are highly relevant. Work in these areas should be cross-sectoral and go beyond water infrastructure development and can include waste management, waste water treatment, sustainable agricultural practices, hygiene, and climate change adaptation.

Relevant for the link between environment and education, The National Palestinian Authority's plan from June 2012 to address the MDG has for example identified the importance to work with environmental awareness and *to improve behaviour pertaining to the preservation of the environment and increase public awareness about environmental issues* through interventions such as: to include environmental education in the curriculum at various educational stages; to promote tools of environmental media; to organise environmental awareness campaigns for various sectors in society; to establish a national centre for environmental training and education; and to set up a plan to encourage environmentally friendly initiatives⁴⁹. So far no progress has been reported.

Addressing resilience

Sida has adopted the following working definition of resilience: *The ability of an individual, a community, a country or a region to anticipate risks, respond and cope with shocks and*

⁴⁸ The Palestinian National Authority, 2012

⁴⁹ The Palestinian National Authority, 2012

stresses, while addressing the underlying root causes of risks, recover, and continue to develop.

Resilience can be considered a 'merger' between other separate or overlapping 'agendas' that are often expected to be mainstreamed into the humanitarian and development work: disaster risk reduction (DRR), climate change adaptation (CCA), food security, environmental management and restoration (maintenance of ecosystem services), social protection etc.

A resilience approach requires more "cross-sector" planning and programming so that several aspects of vulnerability are addressed in parallel. One important aspects of the concept of resilience is that it is largely about 'adaptive capacities' – i.e. about managing change and eventually thrive. Resilience-building should be seen as a continuing process of learning and practice, and there is no 'desired state to bounce back to' after an external shock. This is a fundamental challenge to traditional approaches to development⁵⁰.

Promoting resilience from a developmental/humanitarian perspective means to focus mainly on vulnerable peoples' ('individuals' and 'communities' in the definition above) ability to meet short- and long-term challenges to their livelihoods, safety and potential for development.

Coping with, or adapting to, as well as increasing resilience to climate risks and changes in the natural environment must be seen in a political-economic context. The occupied Palestinian territory is highly vulnerable and seriously affected by environmental threats, water scarcity, and climate change. The oPt as well as neighbouring countries faces projected significant reductions in water availability as a result of climate change. Yet, due to differing institutional structures and resources, there are major regional differences in adaptive capacity. For example, Egypt has reduced river-flow variability through the construction of the Aswan High Dam. To overcome physical water scarcity Gulf states exploit oil rents through heavy investments in seawater desalination, and imports food to save the water used in its production ("virtual water"). Poorer Middle Eastern states less integrated into the global economy have fewer such policy options available to develop their adaptive capacity in the face of forecasted climate change. For the oPt, that adaptation space is even more restricted⁵¹.

Addressing green economy/green growth

Although the use of water is far below the regional average and WHO guidelines, fresh water resources are unsustainably used. The move towards a green economy in a Palestinian context must address the water situation. The situation is strongly linked to the political situation and the lack of control over water resources described in previous chapters. Equitable and efficient prices of water, energy and electricity are important elements for a green economy. Due to current energy and water scarcity and high costs for water and energy oPt are not facing issues with wasteful consumption patterns or unsustainable subsidies that threaten macroeconomic stability.

A greener economy also relates to sustainable agricultural practices and increased use of renewable energy resources such as wind and solar energy. Solar heating of water is already common in the oPt and organic farming could generate needed export incomes. Another important issue is how to make best use of non-renewable resources, such as the gas resources outside Gaza. The challenge is to make wise use of the resources, avoid costly subsidies that tend to benefit richer parts of the population and invest revenues responsibly e.g. in infrastructure or social sectors that benefit the population at large. A green economy is thus largely linked to economic policies and investments decisions that lie far outside the domains

⁵⁰ Falk, K., Ölund Wingqvist, G., 2013(forthcoming)

⁵¹ Mason, M., et al., 2012

of the Ministry of Environment. Therefore it is important that key parts of the Palestinian Authorities, including Ministries of Economy and Trade, Ministry of Planning and International Cooperation have sufficient capacity to assess opportunities and risks related to green economy/green growth. Coordination and cross sectoral collaboration is of great importance and the Ministry of Environmental Affairs need capacity to engage and support this process.

Specific results or indicators

Under this heading ideas on specific results and some indicators are given in relation to Swedish entry points (“ingångsvärden”). Providing realistic and feasible suggestions of possible Sida-financed support would require a stronger sense of the circumstances, opportunities and particularities in the country. Therefore, the ideas presented in this brief should be seen as a basis for a discussion within Sida, particularly the field staff, on possible ways that the Swedish support could be designed in order to enhance the sustainable development.

a) Improved efficiency and transparency for democratic institutions, anti-corruption, particularly related to the rule of law and security, including human rights

Sweden has contributed to strengthening the capacity of Palestinian Authorities to negotiate with Israel on issues like water and environment. Continued efforts including analytic work in this area is warranted to reduce risks of costly overexploitation of water resources and depleted assets and to establish procedures for managing shared resources. Infrastructure investments are prone to corruption. Increased transparency related to investments and service delivery can reduce corruption risks and overtime contribute to increased billings and thus ability to maintain the systems.

Strengthening the judicial awareness of the different stakeholders aims to enhance the humanitarian coordination and advocacy of the Palestinian people and to support their claims to their land and other resources.

Specific results could include:

- Strengthening of environmental CSOs or NGOs, to improve their watch-dog role and collaborate with environmental authorities to improve environmental monitoring, data base management;
- Capacity development of CSOs/NGOs, to increase ability to participate meaningfully in policy development, public debate;
- A well informed private sector in regards to environment and climate change risks and opportunities;
- In relation to allocation of natural resources rights, improve public access to information and increase transparency and procedural rights such as participation in decision making.
- Access to information on water pollution levels, and dangerous exposure to chemicals.

b) Long-term and stable finances through sustainable economic growth, increased tax base and private sector development.

Ensuring proper pricing and collection of fees for energy, water, waste etc is important for macroeconomic stability but may contribute to political unrest if not carefully planned. Compensatory measures to poor and marginalized groups may be necessary. The private sector is critical for economic development and current risks, including political risks constrain investments. Private sector capacity to assess environment and climate change risks

and opportunities for business can be enhanced to stimulate innovation and adaptive measures.

Specific results relevant for entry point two as well as for entry point three (below):

- Collection of water, energy bills, number of businesses participating in water efficiency measures, awareness.
- Market development initiatives through agriculture for food security, e.g. number of support to private sector development including value chain development and financial services.
- Improved information and data sources, mapping of agricultural production, vegetation productivity, weather, yield forecasts, food shortage
- Establish communication channels that can distribute relevant information to farmers, consumers, households etc.

c) Efficient and improved infrastructure, in particular within environment and water that secure people's basic needs

Investments in water, wastewater treatment, sanitation and waste management are important to give access to basic services and a healthy environment. Infrastructure investment needs to be combined with institutional support, such as capacity building, monitoring, controlling and meeting demand, in order to increase resource efficiency.

It will not be sufficient to only invest in delivery capacity but also to work internationally to improve the management of water resources upon which oPt relies upon. Although the Israeli occupation can be considered a major cause of environmental degradation in oPt it is important to raise awareness of environment and climate change risks and mitigation measures that are relevant irrespective of the occupation.

Complementing that type of support would be support to improving the capacities of Palestinian authorities to manage environment and natural resources, both capacity within environmental authorities and capacity within coordinating ministries or key sector ministries with large environmental impact.

Population behaviour can be the main solution to health problem. Community health education and the promotion of health-promoting policies are potentially of great value to women. Schools and educational systems can be an arena to raise the awareness about e.g. environmental health issues and strategies to protect themselves and their communities. Also higher education institutions can integrate aspects of more resilient farming techniques as well as domestic production and gardens as supplement farming.

Specific results could include:

- Volumes of waste water treated/ access to water and sanitation/ improved waste management for x households;
- Increased access to information and access to decision making processes regarding management of land, water, and other natural resources;
- Degree of budget transparency related to natural resources sectors (revenue transparency, budget and expenditure transparency at national, regional and local level) to allow for accountability.
- The use of integrated water resource management and/or transboundary water resource management, especially targeting water allocation, sustainable and equitable use, and demand management activities (including pricing), and increased system efficiency.

- Established water and/or wastewater entities that are administratively and financially autonomous, efficient and cost-effective;
- Increased cooperation between the PA and NGOs which play a prominent role in the development of the sector, particularly in the rural areas of the oPt;
- Enforced legislation, monitoring compliance and issue sanctions for non-compliance, e.g. intensify efforts in targeting illegal drillings, illegal consumptions and water thefts;
- Improved cross-sectoral coordination and policy coherency, for instance including environmental and climate change concerns into national development and investment plans;
- Developed policy instruments, in collaboration with civil society and the private sector (economic, administrative and information), to incentivise green infrastructure and efficient use of resources;
- Evidence of the importance of environmental and climate change aspects are provided and take part in the national debate and budget negotiations.
- Improved integration of environmental awareness in schools and education systems;
- Climate change resilient strategies are integrated in agricultural universities and higher education;
- Developed community health education and support to health campaigns.

7. Conclusion

The key environmental challenges in the occupied Palestinian territory are related to water scarcity and water quality, land degradation, waste disposal and pollution. Insufficient availability of water resources is a key constraint for the wellbeing of Palestinian population and economic development. Climate change is expected to lead to additional stress on current problems.

The Palestinian water sector suffers from under-investment, institutional fragmentation and supply constraints due to the Israeli occupation and its control over water resources. The political situation is characterized by the conflict with Israel, the divide between authorities in West Bank and Gaza and in weak governance structures. Despite some progress related to governance effectiveness, the regulatory quality of oPt and the creation of a specific Ministry of Environmental Affairs, its capacity is limited. Furthermore the political ownership for environmental management is low. Water issues are however relatively high on the political agenda and can be an entry point for increased attention to broader environmental issues.

Continued Swedish support in the water and environment sector respond to significant needs. Improved public capacity to manage water and other natural resources is essential to economic development and the realisation of basic human rights, including the rights to food and health. Both capacity within environmental authorities and capacity within coordinating ministries or key sector ministries with large environmental impact should be considered to create the enabling environment for progress.

Given the fundamental importance of improved management of water resources in the oPt to ensure access to safe water the existing MDG targets, objectives and indicators such as proportion of total water resources used, access to safe drinking water and basic sanitation are of high relevance. Support in these areas could benefit from being cross-sectoral and go beyond water infrastructure development and can include waste management, waste water treatment, sustainable agricultural practices, transboundary water resources management, hygiene, and climate change adaptation and resilience.

Lack of sovereignty over land resources makes it almost impossible to develop and implement coherent national policies and plans. Hence why the overall political goal is key - *to reach a solution to the Israeli-Palestinian conflict and contribute to establishing a viable Palestinian state side by side in peace and security with Israel. The support to the state building efforts shall strive towards a comprehensive democratic state, including the West Bank, East Jerusalem and Gaza.* Every effort in that direction is one step closer to a more sustainable development in the oPt.

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