



Palestinian National Plan 2011-13

Agriculture Sector Strategy

Executive Summary

1. Sector Profile

The agriculture sector touches all aspects of Palestine's land, economy and people. 31% of Palestinian land is agricultural. In 2008, agriculture contributed 8.1% of GDP, down from 10.3% in 2004, and generated 15.2% of exports. 13% of Palestine's 2008 labour force, down from 16% in 2004, and 35% of the female labour force work in this sector.¹ Notwithstanding progress in certain areas, the crippling constraints of the occupation continue to erode Palestine's agricultural production and employment. With two-thirds of Palestine's arable land in Area C, 80% of Palestine's groundwater exploited by Israel, and \$265 million in agricultural damages resulting from the Israeli invasion of Gaza, the level of food insecurity remains acute, with 25% of the West Bank households and 61% of Gaza households suffering.²

A wide range of institutions constitute Palestine's agriculture sector.

- The **Ministry of Agriculture** (MoA) develops policy for and regulates the agriculture sector and supervises/delivers a range of basic agricultural services. The ministry's 1,409 employees are divided equally between the West Bank and Gaza. The 2008 budget allocation was NIS 72 million. Other PNA agencies play important agricultural roles, in particular the Palestinian Water Authority.³
- Three **agricultural commodity boards** were established as semi-government bodies in 2005, including the Palestinian Olive Oil and Olive Board; Milk Board; and Grapes Board.
- 35 Palestinian and 15 international **NGOs and civil society organisations** play an essential role in assisting the agricultural sector. The Palestinian Network of Agricultural Work Organisations (SHAM) coordinates efforts of agricultural stakeholders. Other umbrella organisations include the Palestinian Rural Development Union (Land-Palestine), the Palestinian Environmental NGOs Network (PENGON), etc.⁴
- **Palestine's private sector** in agriculture includes 180 agricultural cooperative societies with 158 in the West Bank and 22 in Gaza (in 2006). 7,207 agricultural installations operate with 5,744 in the West Bank and 1,463 in the Gaza Strip.⁵ Livestock and poultry installations constitute 81% of these facilities. In comparison with other developing countries, state support and incentives for the private sector have traditionally been extremely low.
- **Donors and international organisations** fund a wide range of agricultural projects in Palestine. The PRDP allocated 3.5% of the 2008-10 development budget to agriculture. From 2008-09, US\$ 23 million, or 4% of the total, was allocated to the agriculture sector through the Consolidated Appeals Process (CAP).

¹ MoA, 2009.

² Palestinian Central Bureau of Statistics (PCBS), 2009.

³ MoA, 2009.

⁴ MoA, 2009.

⁵ PCBS, 2006.

2. Situation Analysis

Few sectors have been so comprehensively and adversely affected by the Israeli occupation as agriculture. Going forward, greater attention and funding will be required to enable the sector to regain its prominence and realise its potential as an economic driver and source of employment.

Agricultural Resources

Land and water are fundamental agricultural resources. Roughly 62.9% of Palestine's arable land is located in Area C with just 18.3% in Area A.⁶ Although pastureland comprises 2.02 million *dunums*, Israeli settlement activity and Wall construction has reduced grazing lands to only 700,000 *dunums*. The western section of the Separation Wall has isolated an estimated area of 900,000 *dunums* of land,⁷ causing approximately US\$ 62 million of losses. Of Palestine's 48 natural reserves, which are mainly located on Eastern Slopes and Jordan Valley area, 17 reserves of 55,000 *dunums* have been transferred to the PNA. The total area of natural reserves is 514,000 *dunums*.⁸

In the West Bank, Israeli exerts control over 82% of the Palestinian groundwater. The 2009 World Bank report on Palestinian water sources indicated that removal of Israeli restrictions and the resulting provision of additional water supply would raise agricultural sector's contribution to the GDP by 10%, creating up to 110,000 additional job opportunities (MoA, 2009).

Global climate change is increasingly affecting the agriculture sector, with higher incidences of drought, frost and floods. Climate change leads an increasing water demand for plant irrigation. The 2007-08 drought caused a 35-40% reduction in the production of rain-fed crops with losses estimated at US\$ 130 million.⁹

In addition to occupation impacts, agricultural resource deterioration is being intensified by water wastage, over-pumping, unlicensed wells, limited use of fresh water, and land conversions/encroachments.

Notwithstanding these constraints, select progress has been made. Approximately 70,000 *dunums* of land have been reclaimed, 3.5 million square metres of support walls built, and 3,000 kilometres of agricultural roads constructed.¹⁰

Agricultural Production

⁶ MoA, 2009.

⁷ MoA, 2009.

⁸ PCBS, 2009.

⁹ MoA, 2009.

¹⁰ MoA, 2009.

In 2004, a total of 101,172 agricultural holdings were in operation in the Palestinian territory with 69.5% plant holdings, 7.3% livestock holdings, and 23.2% mixed holdings. 89% of holdings were located in the West Bank and 11% in Gaza.¹¹

From 2004 to 2008, the area of land cultivated with fruit-bearing trees, vegetables and field crops rose by 1.6%, 3.9% and 0.8% respectively. This resulted in production increases of 18% in vegetables and 11% in field crops. However, fruit production declined by 21%, owing to the drop in citrus fruits.¹²

During this same period, the number of cattle rose by 1.8% and egg-laying chickens by 7.2% while the number of goats, sheep and broiler chickens declined by 19.2%, 15.1% and 17.4% respectively. Production increases were realised for beef (+0.4%), milk (+71.7%) and eggs (7.3%). In contrast, meat production from sheep (-16.9%), goats (18.9%), poultry (-17.5%) and fish (-9.8%) decreased significantly, as did honey production (-32%).¹³

Israeli control over Palestine's market hampers agricultural production as local markets are flooded by Israeli products, high prices result from excessive costs charged by brokers/merchants, and critical imports of breeds, crop seeds and seedlings are blocked. Agricultural exports similarly suffer from Israeli restrictions, dependence on Israeli brokers/merchants, and inadequate state support for export products. Restrictions on movement¹⁴ and limited access to agricultural medicines, fertilisers and other agricultural inputs create further impediments.

Productivity is also hindered by weak application of modern agricultural practices, outdated equipment, underdeveloped research, and weak services. The reliance on imported production inputs adds to problems, particularly for livestock where 61% of generated revenue is consumed by costly inputs.

To mitigate the adverse impediments of occupation, compensation has been provided to farmers affected by the Wall, fishermen in Gaza, and others who have suffered from direct Israeli attacks and the closure regime. Farmers have also received assistance to cope with extreme weather conditions, such as drought, frost and severe winds.

International support has further assisted. In 2008-09, 709 projects costing US\$25 million were implemented in Palestine, benefiting 94,000 people (26% women) in the agriculture sector. However, the situation in Gaza remains dire where border closure continues to prevent international assistance from reaching Gaza's farmers and beginning to remedy the US\$265 million in damages caused by the Israeli invasion.

Agriculture Services and Institutions

¹¹ PCBS, 2004-05.

¹² PCBS, 2004-08.

¹³ PCBS, 2004-08.

¹⁴ MoA, 2009.

Weak services, inadequate financing (only 30% of demand for loans is met), and unaffordable agriculture insurance adversely affect productivity.

At the institutional level, poor coordination between institutions, differing West Bank-Gaza legal frameworks, and insufficient funding reduce the state's capacity to lever productivity improvements. Agricultural education is not well aligned with market requirements.

MoA continues to work on these gaps and employed foreign aid in 2009 to deliver 29 projects dealing with soil and irrigation; guidance and rural development; plant protection; veterinary services; forests and pastureland; planning and policy-making; and fisheries.¹⁵

3. Vision

This vision statement places agriculture at the heart of the Palestinian economic, social and political fabric.

The future vision is a sustainable, efficient agriculture sector, able to ensure food security and foster competition. By optimising its resources, the agriculture sector will contribute to Palestine's comprehensive development. This vision reflects the Palestinian people's attachment to their land, their sovereignty over its land and resources, and their commitment to establishing the State.

Looking ahead, the realisation of the sector vision will require sustained attention by government and equitable resources to reverse the sector's decline and overcome the massive and continuing damages resulting from Israeli actions.

Planning must operate on several tracks: confronting and mitigating the impediments of occupation; returning the sector to prominence and productivity; and determining how the sector will transition from occupation to independence. For the agriculture sector, this will be accomplished by continuing the broadly participative approach used to develop this strategy.

Few sectors will be more affected by independence than agriculture and have more potential to contribute immediately to addressing the economic and labour force challenges ahead. Securing control over land and water resources will create the basis for sustainable agriculture, rapid growth of the export sector, reduction in input costs, and expansion of the sector work force. However, the realisation of this opportunity will depend on the sector itself working together in a coordinated manner to eliminate inefficiencies, modernise the delivery of services, provide incentives, and increase productivity.

4. Strategic Objectives

¹⁵ MoA, 2009.

The following summarises the key policies and interventions proposed for the agriculture sector. Details are available in the full sector strategies.

| POLICY | POLICY INTERVENTIONS |
|--|---|
| <i>Strategic Objective 1: Promote farmers' perseverance, attachment to their land and retention of their occupations.</i> | |
| 1.1 rehabilitate the agricultural sector in Gaza and support farmers affected by Israeli attacks | <ul style="list-style-type: none"> • support small-scale farmers and fisherman • support farmers who grow export crops • rehabilitate destroyed agricultural infrastructure • provide agricultural production inputs • provide incentives and support farmers residing in the vicinity of settlements • prepare compensation files for farmers in accordance with international law |
| 1.2 support small-scale farmers, vulnerable groups and women in rural areas | <ul style="list-style-type: none"> • support projects on diversifying sources of income • support labour-intensive projects • promote women's role in the agriculture sector |

| POLICY | POLICY INTERVENTIONS |
|--|--|
| <i>Strategic Objective 2: Effectively and sustainably manage agricultural resources throughout the Palestinian territory, ensuring that the environment is conserved and protected against deterioration.</i> | |
| 2.1 increase water infrastructure and improve supply management | <ul style="list-style-type: none"> • rehabilitate water infrastructure and raise designated agricultural water sources • enhance the competence of water transportation and distribution systems |
| 2.2 improve management of the agricultural water supply | <ul style="list-style-type: none"> • address the case of random and unlicensed wells • upgrade irrigation systems |
| 2.3 reclaim new land and promote sustainable use of agricultural biodiversity | <ul style="list-style-type: none"> • reclaim and enhance the productivity of mountainous and rough land • greening and foresting government and privately-owned land • develop and rehabilitate pastureland • conserve and sustainably use agricultural biodiversity |

| POLICY | POLICY INTERVENTIONS |
|---|--|
| <i>Strategic Objective 3: Establish a proper institutional and legal framework, supported by a trained, qualified agricultural workforce to help end the occupation and establish the State.</i> | |
| 3.1 upgrade the competence and effectiveness of agricultural institutions | <ul style="list-style-type: none"> • develop sub-sector strategies • redefine roles and institutional responsibilities |
| 3.2 update and consolidate the legal framework | <ul style="list-style-type: none"> • review agriculture-related regulations and identify the legislation that should be |

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| | developed or updated |
| 3.3 train and develop sector human resources | <ul style="list-style-type: none"> • identify training needs and human resources for agricultural institutions • develop and implement human capacity development programs |

| POLICY | POLICY INTERVENTIONS |
|---|--|
| Strategic Objective 4: Improve the productivity of plant and livestock agriculture and their contribution to realising food security | |
| 4.1 apply modern systems in plant production | <ul style="list-style-type: none"> • enhance the productivity of field crops • improve the productivity of olive cultivation • upscale the productivity of fruit-bearing trees |
| 4.2 shift to systems of intensive and semi-intensive livestock production | <ul style="list-style-type: none"> • improve the productivity of sheep and goats • increase the production of fodder crops and provide fodder alternatives • promote aquaculture • support apiculture and honey production |

| POLICY | POLICY INTERVENTIONS |
|--|---|
| Strategic Objective 5: Develop appropriate agricultural infrastructure and services | |
| 5.1 create a conducive investment environment and promote investment in agriculture and related services | <ul style="list-style-type: none"> • develop feasibility studies on agricultural investment • provide investment incentives |
| 5.2 upgrade guidance services, plant protection, veterinary medicine and agricultural research | <ul style="list-style-type: none"> • review and assess sector needs of agricultural services • develop and implement specialised service programs |
| 5.3 invigorate lending, rural finance and agricultural insurance | <ul style="list-style-type: none"> • establish an agriculture lending bank and support existent institutions • promote and revitalise the Law on Agricultural Insurance |
| 5.4 develop mechanisms to deal with natural disaster | <ul style="list-style-type: none"> • identify and adopt mechanisms for early warning of and coping with agricultural disasters |

| POLICY | POLICY INTERVENTIONS |
|---|--|
| Strategic Objective 6: Improve the ability of the Palestinian agricultural products to compete in local and external markets | |
| 6.1 enhance plant and livestock production | <ul style="list-style-type: none"> • develop and apply quality standards • raise farmers' and exporters' awareness of quality standards and market requirements • establish infrastructure for agricultural marketing |

| | |
|--|---|
| 6.2 provide guidance on meeting requirements of local and external markets | <ul style="list-style-type: none"> develop and implement programs to diversify and increase profitability of agricultural production provide incentives to create enabling environment for production of export crops and commodities that will replace imports |
| 6.3 promote Palestinian agricultural products | <ul style="list-style-type: none"> launch programs to support agricultural exports develop programs to support agricultural exports |

| POLICY | POLICY INTERVENTIONS |
|--|---|
| <i>Strategic Objective 7: Enhance the agricultural sector's operational capacity to help achieve the requirements of state-building</i> | |
| 7.1 provide agricultural control on borders and land and sea outlets | <ul style="list-style-type: none"> develop agricultural quarantine requirements rejuvenate agricultural commerce systems |
| 7.2 provide national authoritative laboratories | <ul style="list-style-type: none"> establish labs for production inputs establish disease and pandemic labs establish food quality and safety labs |

6. Resource Requirements

Indicative cost estimates were provided, covering the requirements of all sector partners. The specific budget entity requirements and allocations will be determined through the 2011-13 budget process. All figures below are expressed in '000 USD.

INDICATIVE COST ESTIMATES FOR SECTOR STRATEGY BY POLICY

| # | Policy | 2011 | 2012 | 2013 | Total |
|-----|---|---------|---------|---------|---------|
| 1.1 | rehabilitate the agricultural sector in Gaza | 112,000 | 112,000 | 101,333 | 325,333 |
| 1.2 | support farmers affected by the separation wall, settlements and Israeli measures | 48,000 | 48,000 | 46,667 | 142,667 |
| 1.3 | support small-scale farmers, vulnerable groups and women in rural areas | 30,667 | 30,667 | 29,333 | 90,667 |
| 2.1 | increase water infrastructure and improve supply management | 20,000 | 20,000 | 18,667 | 58,667 |
| 2.2 | improve management of the agricultural water supply | 41,333 | 45,333 | 46,667 | 133,333 |
| 2.3 | reclaim new land and promote sustainable use of agricultural biodiversity | 267 | 400 | - | 667 |
| 3.1 | upgrade the competence and effectiveness of agricultural institutions | 133 | 133 | - | 267 |
| 3.2 | update and consolidate the legal framework | 13,333 | 13,333 | 9,333 | 36,000 |

| | | | | | |
|--------------|--|----------------|----------------|----------------|------------------|
| 3.3 | train and develop sector human resources | 66,667 | 66,667 | 66,667 | 200,000 |
| 4.1 | apply modern systems in plant production | 49,333 | 49,333 | 48,000 | 146,667 |
| 4.2 | shift to systems of intensive and semi-intensive livestock production | 13,333 | 13,333 | 13,333 | 40,000 |
| 5.1 | create a conducive investment environment and promote investment in agriculture and related services | 26,667 | 26,667 | 26,667 | 80,000 |
| 5.2 | upgrade guidance services, plant protection, veterinary medicine and agricultural research | 10,667 | 10,667 | 10,667 | 32,000 |
| 5.3 | invigorate lending, rural finance, agricultural insurance, and natural disaster mechanisms | 8,000 | 4,000 | 1,333 | 13,333 |
| 6.1 | enhance plant and livestock production | 21,333 | 24,000 | 16,000 | 61,333 |
| 6.2 | provide guidance on meeting requirements of local and external markets | 32,000 | 29,333 | 18,667 | 80,000 |
| 6.3 | promote Palestinian agricultural products | 9,333 | 9,333 | 8,000 | 26,667 |
| 7.1 | provide agricultural control on borders and land and sea outlets | 2,933 | 2,400 | 2,667 | 8,000 |
| 7.2 | provide national authoritative laboratories | 8,000 | 8,000 | 10,667 | 26,667 |
| TOTAL | | 514,000 | 513,600 | 474,667 | 1,502,267 |

6. Expected Results

The following indicators and major accomplishments, identified in the sector strategy, provide the starting point for these deliberations.

1. To increase self-sufficiency in local agricultural products by 5% by the end of 2013.
2. To increase the value of the agricultural sector to US\$ 1 billion by the end of 2013.
3. To increase the value of agricultural exports to US\$ 60 million by the end of 2013.

The following legal measures will be drafted and adopted:

- promulgation of the Law on Agricultural Insurance; and
- implementation of 11 regulations under the Law on Agriculture.

The following organisational measures will be implemented:

- restructuring of the Ministry of Agriculture and National Centre of Agricultural Research;
- establish and regulate supervisory and commodity boards, including:

- Agricultural Board;
- Milk Board;
- Grapes Board;
- Bees and Honey Board;
- Aromatic and Medical Plants Board; and
- Vegetables Board.

7. Sector Strategy Process

The Agriculture Sector strategy, led by the Minister of Agriculture, undertook intensive consultations to ensure that a national dimension was reflected. Chaired by the Minister of Agriculture, a national team was established to develop the Agriculture Sector Strategy. The team comprised representatives of relevant ministries and government bodies as well as civil society organisations, the private sector and international NGOs. Four technical national teams, bringing together local experts from MoA and from other bodies, were also constituted. The developed four technical reports on agriculture subsectors, including plant production, livestock production, natural resources, and agricultural services. Technical support was provided by the UN Food and Agriculture Organisation with financial support from the Spanish and Norwegian Governments.

Eight workshops were held throughout Palestine, with attendance by 378 representatives from state and local governments, NGOs and civil society organisations, agricultural organisations, the private sector and donors. The workshops included:

Four governorate-level workshops, bringing together representatives of farmers, service providers, MoA, government bodies, NOGs, civil society organisations and private sector enterprises in the respective areas.

- Southern West Bank governorates, including Hebron and Bethlehem; organised in the city of Hebron on 1 September 2009;
- Central West Bank governorates, including Ramallah and El Bireh, Jerusalem and Jericho; organised in the city of Jericho on 3 September 2009;
- Northern West Bank governorates, including Jenin, Tubas, Tulkarem, Nablus, Salfit and Qalqiliya; organised in the city of Nablus on 7 September 2009; and
- Gaza Strip governorates, including Northern Gaza, Gaza, Central Gaza, Khan Yunis and Rafah; organised in the city of Gaza on 6 October 2009.

Institutional workshops involved representatives of the following:

- for Government bodies; held on 1 October 2009.
- for NGOs and civil society organisations; held on 4 October 2009.
- for the private sector; held on 6 October 2009.
- for donors and international and regional organisations; held on 8 October 2009