The State of Palestine
Ministry of Agriculture

National Agriculture Sector Strategy

"Resilience and Sustainable Development" (2017-2022)



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Prepared with support from the Food and Agriculture Organization of the United Nations (FAO)

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Preface



The agriculture sector is a key integral component of the cultural, social and economic fabric of the Palestinian people. Since ancient times, agriculture in Palestine has played an important role in preserving the resilience of Palestinians during the challenging and trying times they have faced struggling against colonialism and occupation. Nowadways, the agriculture sector plays a central role through its contribution to the Gross Domestic Product (GDP), employment, and foreign trade. Furthermore, agriculture is a crucial driving force for other economic sectors, and foundational pillar for preserving the environment.

The National Agriculture Sector Strategy (NASS) (2017-2022) constitutes a turning point in the way strategic planning is undertaken in Palestine. The focus has shifted to identifying means for creating sustainable agricultural development, while contributing to national food security and economic development in a manner that reflects strong and clear linkages with the National Policy Agenda for 2017-2022and the commitments of the State of Palestine vis-a-vis international frameworks, including the Sustainable Development Goals (SDGs) adopted by the United Nations.

The preparation of NASS (2017-2022), which was named "Resilience and Sustainable Development", reflects a participatory approach underpinned by the principles of results-based management adopted by the Ministry of Agriculture, under the guidance of the Palestinian government. The participatory approach is crucial to ensure national ownership of the strategy, which in turn will facilitate its implementation in a manner that ensures the achievement of the planned results and outcomes, as well as economic and social impact.

The implementation of the National Agriculture Sector Strategy throughout 2017-2022 requires cooperation between the Palestinian Ministry of Agriculture and all partners and stakeholders involved in the agriculture strategy. This partnership is highly valuable to guide resources towards achieving the Palestinian agriculture sector vision, which essentially aspires to supporting the steadfastness of Palestinian farmers on every inch of the land, enhancing the agriculture sector to achieve economic growth, increasing farmers' income, as well as increasing productivity and competitiveness of the agriculture sector in local and international markets.

We thank all individuals, local and international organizations, the members of the Strategy National Team and the Food and Agriculture Organization of the United Nations (FAO) that were all eagerly involved in developing this strategy, whether through financial or technical support, or through participating in its formulation and revision.

Beseeching Almighty God to help us all in our endeavors and efforts to develop the Palestinian agriculture sector and support farmers.



Dr. Sufian Sultan
Minister of Agriculture

1. Introduction

1.1. The National Agriculture Sector Strategy: A Key Component of the Palestinian Development Plan (2017-2022)

The Palestinian government is establishing an integrated and unified planning and budgeting management system based on well-deliberated policies that provide clear rules and steps for decision-making, as well as a national reference for civil society organizations, the private sector and international partners. The strategic objectives of the adopted policies can be achieved through governmental (service development, drafting of legislation and emphasizing adherence to these), civil society and private sector interventions.

The National Development Plan (2017-2022) consists of two key components. The first component is the National Policy Agenda, which represents a high-level policy document that sets out the national vision, priorities and policies. The second component is comprised of the 18 national sector strategies, along with three cross-sector strategies. Each strategy depicts the sector's strategic objectives, outcomes and policies that all stakeholders will seek to achieve by 2022. The national strategies also include all governmental programs, specifying their objectives, standards, outputs and functions.

Twenty ministers and directors of governmental institutions, in addition to the Minister of Agriculture, lead teams from within the ministries or bodies, along with national teams consisting of relevant state and civil society organizations and universities, as well as experts that all collaborate to prepare the 18 sector strategies and the three cross-sectoral strategies. The sectoral strategies include agriculture, culture, heritage, education, employment, energy, health, housing, communication and information technologies, international relations, justice, local government, national economy, public finance management, security, social protection, tourism and antiquities, transport and communications, water and wastewater. The cross-sectoral strategies include gender equality, environment and youth.

The Manual for the Development of Sectoral Strategies (2017-2022), prepared by the Ministry of Finance and Planning, identified a set of expectations that are deemed as the objectives of the sectoral planning process. These are as follows:

1. Determine the role of responsibility centers, non-governmental organizations (NGOs) and the private sector in the delivery of services and the sector's development.
2. Determine the government's efforts to achieve the strategic objectives over the next six years through goals, objectives and standards of program policies.
3. Determine the required arrangements to ensure coordination between governmental and NGO plans.
4. Describe actions needed to influence the decisions and actions of civil society organizations and the private sector (including legislation and laws).
5. Describe the expected role of the private sector over the next six years including adherence to laws and legislations, fund transfer and governmental support.
6. Describe interventions agreed upon by all development partners, including funding plans for development projects (via the program's budget and external funding sources).

Based on the program policy statement, particularly the outputs and the program policy objectives, the Ministry of Finance will prepare a proposed budget for 2017, as well as governmental spending

plans for 2018 and 2019. The Ministry of Finance and Planning will work with other ministries and institutions to review and develop the program policy statement for the second budgeting phase from 2020 to 2022.

1.2. Strategic planning methodology

The strategic planning process for the agriculture sector was based on the Manual for Sectoral Strategy Development (2017-2022), which was issued by the General Directorate of Budgeting in the Ministry of Finance and Planning. The manual included instructions and comprehensive overview of the methodology. The planning process also depended on a set of circulars and correspondence related to the deadlines and financial ceilings pertaining to the process, especially the review of the 2014- 2016 sector strategy and the program policy statement.

The planning process was initiated at the beginning of April 2016 by reviewing the Resilience and Development Strategy of 2014-2016. During this process, key achievements and gaps within the three strategic directions were identified, along with policies, indicators and programs. The strategic review process provided a general framework and foundation for the strategic planning process of 2017- 2022, through the identification of the right directions for policy interventions.

Based on the directives of the Minister of Agriculture and his deputy, and the preparation of the strategy manual, and findings of the strategic review report, a series of consultations within the ministry and outside were held to determine the sectoral priorities and the most important policy interventions that the Ministry of Agriculture (MoA), other relevant government, non-governmental and private institutions and agencies will be implementing. More specifically, the overall planning process included the following activities:

1. Establishment of a Planning and Budgeting Management Group, led by the minister and his deputy, and consisting of three program managers at the MoA. The group was responsible for the revision and development of the Ministry's programs andthe preparation of the mid-term budget and its follow up and execution. The group conducted a series of meetings to develop the methodology and the program policy statement.

2. Establishment of a National Team to prepare the National Agriculture Sector Strategy (2017-2022), by a decision of the Minister of Agriculture. The National Team was responsible for guiding and following the preparation process of the strategy, including the elaboration of the strategic objectives, policies, programs and budgets, as well as coordinating efforts to harmonize strategies and plans of institutions working in the agriculture sector. Chaired by the Deputy Minister, supported by the General Director of Planning and Policy at the MoA as the secretary of the National Team, and including a representative from the Ministry of Finance and Planning, Ministry of National Economy, Ministry of Labor, Environment Quality Authority, Water Authority, Palestinian Central Bureau of Statistics, Risk Prevention and Agricultural Insurance Fund, Palestinian Agricultural Credit Institution, the Ministry of Local Government, as well as representatives from NGOs, and the Food and Agriculture Organization of the United Nations (FAO).

3. Four technical committees (Committee on Natural Resources, Committee on Agricultural Services, Technical Committee of Agricultural Production and the Committee of Institutionalization and Administration) supported the Planning and Budget Management Group and the General Department of Planning and Agricultural Policy by analyzing and reviewing the current situation of the agriculture sector, and submitting suggestions to amend the programs' budgets, the results framework, and sectoral objectives. These committees also supported successful partner consultations on priorities.

4. A workshop was held for stakeholders involved in the agriculture sector, during which obstacles related to the four strategic objectives were discussed and consensus on the priority of policy interventions was reached. The workshop was opened by H.E. Minister of Agriculture and attended by 95 participants, representing experts, researchers, directors at governmental

organizations, NGOs, universities, international organizations, as well as farmer's and producer's organizations, agricultural councils, and institutions emanating from the Palestinian MoA. In five working groups, participants agreed on a set of priorities covering five pillars (natural resources, production and productivity, services, institutionalization and management, and resilience and protection).

5. The first draft strategy was prepared based on the initial consultations. It provided a basis for further extended consultations with partners, in order to enhance the participatory process and the strategic analysis of the agriculture sector. The extensive consultations included:

    - A meeting conducted with the Planning and Budgeting Management Group to review the first draft strategy, which included the initial vision, policies, strategic objectives and sectoral results based on consultations with partners.

    - A meeting conducted with the National Team to discuss the initial results and determine the methodology, as well as activities for the second phase consultation process.

    - Four consultation workshops conducted at district level. In Nablus, the workshop included 48 farmers and representatives of active agricultural institutions in Nablus, Jenin, Tubas, Qalqiliya and Tulkarem. In Hebron, the workshop included 62 farmers and representatives of active agricultural institutions in Hebron and Bethlehem. In the Gaza Strip, the workshop included 79 farmers, and representatives of active agricultural institutions in the Northern governorates of Gaza, Gaza, Deir Al-Balah, Khan Younis and Rafah. Finally, the last workshop included 38 farmers and representatives of active agricultural institutions in Jerusalem, Jericho and Ramallah.

6. 6. The second draft strategy was prepared after the extensive consultation process.

7. 7. Meeting with the Planning and Budget Management Group to review the second draft strategy and compare it with the program policy statement.

8. 8. Meeting with the National Team to endorse the final version of the strategy.

9. 9. Submission of the report to the Ministry of Planning and Finance to seek its endorsement by the Palestinian Council of Ministers.

1.3. Contents of the strategy

The "Resilience and Sustainable Development" Strategy includes a background section about the agriculture sector providing a general overview of the sector, sub-sectors, institutions, actors and constraints. Section 3 presents the situation analysis describing key achievements and gaps of the "Resilience and Development Strategy" of 2014-2016, together with factors affecting national agriculture development. Section 4 depicts the vision for the sector, its guiding pillars, as well as the five strategic goals and their intersections.

In addition, Section 5 describes policies that are crucial for the achievement of the strategic objectives, while Section 6 indicates the results anticipated in the coming six years. Section 7 laysout the strategy's relationship with the National Policy Agenda, whereas Section 8 outlines its relationship with the Sustainable Development Goals (SDGs) of Agenda 2030. Section 9 highlights the three program policy statements, which determine the government's contribution to achieving the sector's objectives and results. Section 10 details the action plan that includes all initiatives to be undertaken by the Palestinian Council of Ministers, and Section 11 presents the strategy's implementation arrangements. Finally, Section 12 details the financial envelopes and funding gaps.

2. Agriculture sector background

2.1. Palestinian demographic situation

In 2015, the estimated Palestinian population was 4.7 million, with 2.86 million Palestinians residing in the West Bank and 1.8 million in the Gaza Strip.[1] Despite the decline in the total fertility rat4.06 in 2014, Palestine has a higher population growth rate than the 2.8 average fertility rate of Arab countries.

The percentage of individuals under the age of 14 constituted 39.4% of the total population, while the percentage of individuals above 60 years accounted for 4.5% of the total population. Despite the relative shift in the population age groups, Palestine is experiencing a rise in the dependency ratio compared with other Arab countries, although it declined from 101.3 in 1997 to 74.6 in 2014. The sharp increase in the Palestinian youth population (15-29) creates a youth bulge (share of the youth age to the total population) reaching 30%; a serious trend to be monitored.

Population projections in millions suggest that the population of Palestine will increase from 4.7 in 2015 to 6.9 in 2030 and will double in 2050, reaching 9.5 million,[2] despite the significant fertility reduction mendioned above. This is expected to create a shift in the age structure of the population, as the youth ratio (0-14) will drop to 35% in 2030 and to 25% in 2050, with a slight increase expected in the percentage of older people (65 and above). In addition, the percentage of working age population (15-64) is expected to increase from 57.8% to 61% in 2030 and continue to rise, reaching up to 67% of the total population in 2050. These trends will lead to increased pressure on the labor market as the need to create new jobs for large numbers of the working age population will rise, in addition to the increased pressure on natural resources, especially land, water and forests.

2.2. General overview: The agriculture sector and its contribution in economic and social development

Since 1967, the agriculture sector, including all its various components and sub-sectors, has constituted one of the most important pillars of Palestinian resilience to Israeli occupation policies in the West Bank, including East Jerusalem, and the Gaza Strip, as is reflected in the Palestinian popular proverb, "If agriculture is fine, then the country is fine." Constituting an employment, livelihood and food security resource for a large proportion of Palestinians, the agriculture sector is also one of the most important pillars of the Palestinian economy. It contributes to generating foreign currency through exports. Furthermore, as a supplier of raw materials and basic goods as well as a user of services and outputs of vital national sectors, the agriculture sector makes a key contribution to the industry, trade, transport, communications and services sectors.

The Palestinian agriculture sector is characterized by the diversity of its production. It benefits from the climatic variations in Palestine and opportunities for expanding irrigated and export cash crops, as well as its ability to keep abreast of agricultural technological development as a result of favorable agricultural patterns, and the presence of many entrepreneurs. These characteristics reflect the agriculture sector's ability to rapidly develop and effectively contribute to employment, as well as economic growth and development. This potential is particularly significant given that occupation policies impede the sector's sustainable development, and include the confiscation and prevention of access to land, water resources and irrigation development, and hinder import and export of agricultural products and inputs.

1 PCBS, Population of Palestine 2015.
2 Prime Ministers Office/National Population Committee and UNFPA, Palestine 2030, Population Growth in Palestine and its Impact on socio-economic sectors, 2016

In 2014, the value of agricultural production at current prices was US $ 919 million, registering a continuous annual decline since the year 2011, which recorded the highest value of agricultural production with US $ 1119.4 million[3]. Within the same context, the value added of the agriculture sector in Palestine reached US $ 624.5 million in 2012 at current prices, representing 6% of GDP at that time. This contribution fell to 3.9% in 2014, when the value added of the agriculture sector reached US $ 494 million. Furthermore, the value of agricultural imports and exports was equal to the levels observed in the early 1970s, ranging between US $20-30 million. Over time, the annual agricultural imports increased to exceed exports significantly. Agricultural imports totaled approximately US $ 212 million in 2014, while agricultural exports reached US $ 67 million, accounting for nearly 7% of total exports.

Historically, the agriculture sector has played an important role in providing employment opportunities, especially in times of crisis, during which it was difficult to work in other sectors. This characteristic enhances the role of the agriculture sector in strengthening the resilience of Palestinians and increasing their capacities to adapt. Nevertheless, since 2006, the agriculture sector has witnessed significant decline in the number of female and male agricultural workers due to restrictions imposed on the sector's development and its low production. In 2006, labor force participation in the agriculture sector constituted 16.7% of total labor force (12.6% male, 35.1% female), falling to 10.4% in 2014, and to 8.7% in 2015. The percentage of men working in the sector was estimated at 7.8% of total male workers in 2015, while 13.1% of total female workers were employed in agriculture, emphasizing the relative importance of the agriculture sector to women.

2.3. Resources: Agricultural lands

Of the approximately 6.023 million dunums that make up the total land area of Palestine, with the largest percentage (94%) in the West Bank,[4] 20% is used for agricultural purposes (1.2 million dunums). 90% of agricultural land is located in the West Bank, while only 10% is located in the Gaza Strip.

In the West Bank, 62.9% of the land, including the majority of agricultural land, is classified as Area C, meaning that according to the Oslo Agreement, they remain under full Israeli control. In contrast, only 18.8% of the West Bank's area is located in Area B, which falls under Israeli security and Palestinian administration, whereas 18.3% is classified as Area A, which is under full Palestinian control.

Despite the "Israeli withdrawal" from the Gaza Strip in 2005, during which lands occupied by Israeli settlements were returned to Palestinians, Israel still prevents farmers from accessing their land in what is known as the "buffer or border areas" that stretch along the eastern borders with Israel and extend over a depth ranging from 150 meters to one kilometer. The total agricultural land in the border area is estimated to be at least 62 square kilometers (40% of agricultural land in the Gaza Strip). This area is not exploited by farmers due to their inability to access their lands, or is cultivated by field crops that have low returns and are not cost-effective due to the dangers facing farmers trying to reach and cultivate their land.

Since the 1990s, the agriculture sector in Gaza has suffered a number of shocks that have severely impaired its development. One of the most important shocks is the blockade imposed on the Gaza Strip since 2007, accompanied by the prohibition of exports and restrictions on the movement of goods and individuals to and from the Gaza Strip. Although the effects of the blockade have been devastating to all economic sectors, the agriculture sector has been hit the hardest. Nearly 20% of Gaza's agricultural land is off-limits due to Israeli access restrictions, and more than 3,000 fishermen have no access to 82% of the fishing areas agreed upon in the 1992 Oslo Accords. Overall, access restrictions to land and sea affect 178,000 people, equivalent to 12% of Gaza's population, causing annual losses in agricultural production and fishing valued

3 PCBS, National Accounts for the years 2014-2000.
4 Ministry of Local Government, http://www.molg.pna.ps/Palestine.aspx

at US $ 80 million. The Israeli aggression on the Gaza Strip in 2014 has had a great impact on the agriculture sector. 30% of the agricultural land has been damaged and much of it has become unsuitable for agriculture as a result of being contaminated with remnants of war or because of being razed completely. In addition, a large number of irrigation wells, irrigation systems, fruit trees and agricultural installations that were used in post-harvest operations, such as warehouses, refrigerators and packing units were targeted and destroyed. The most affected areas were those where the Israeli ground operation was concentrated such as Khan Yunis, Rafah, and parts of northern and central Gaza city. The direct and indirect losses of the agriculture sector reached more than US $ 450 million.

Rain-fed agriculture is dominant, occupying nearly 81% of the total area of land used for agriculture, while irrigated areas cover approximately 19% of land used in agriculture, located mainly in the governorates of the Gaza Strip and the Jordan Valley, as well as in semi-coastal areas in the West Bank. In general, low soil fertility and weak trends in agricultural land investment, as a result of water scarcity, poor financial resources and high risk, are the key challenges associated with land development in Palestine.

The total area of agricultural land currently used by Palestinians constitutes less than half of the Palestinian agricultural land area available for cultivation, while the remaining areas are distributed to lands that can be cultivated but are not used for such purposes, or lands that need rehabilitation, lands that cannot be rehabilitated (often used for grazing of ruminants), lands used for industrial and urban expansion, and areas confiscated by the Israeli authorities for settlement expansion, building the separation wall and the construction of bypass roads.

Rangeland area covers 2.02 million dunums, but only 621,000 dunums are allowed for the grazing of ruminants, leading to increased loads on pastoral practices and overgrazing in these areas that serve at least 250,000 livestock heads. These areas suffer from low rainfall that ranges between 100 and 250 millimeters per year[5].

Closed forest areas amount to 94,000 dunums complemented by 320,000 dunums of open forest areas. Of the 48 natural reserves in the West Bank, the Palestinian National Authority controls only 17, and these are located in the eastern slopes and the Jordan Valley[6].

2.4. Agricultural holdings: Numbers and characteristics[7]

The total number of agricultural holdings in Palestine reaches 111,310 holdings, of which 90,908 are in the West Bank, (81.7%), with the remaining 20,402 holdings in the Gaza Strip (18.3%). The governorate of Hebron is one of the largest areas in terms of number of agricultural holdings, constituting approximately 18% of the total holdings in the Palestinian territories, and amounting to 19,768 holdings. The governorate of Jericho, with its 1,612 agricultural holdings, has the smallest number and constitutes only 1.4% of the total holdings in the Palestinian territories. The majority of agricultural holders are between 40-49 years (28.6%), of whom 28.9% are in the West Bank and 27.3% in the Gaza Strip.

Plant holdings are the most common in the Palestinian territories, reaching 79,176 holdings or 71.1% (82.4% in the West Bank and 17.6% in the Gaza Strip) of total holdings. The 2010 Palestinian agricultural census reveals that most agricultural holdings are smallholdings, as 83,785 holdings covered less than 10 dunums of area, amounting to 75.3% of total agricultural holdings and 20.7% of total agricultural land holdings. The percentage of large holdings, exceeding 80 dunums of area, only constitutes 1.8% of total agricultural holdings and 29.5% of total agricultural land holdings. In addition, the average area of agricultural holdings reached 10.8 dunums (12.2 dunums in the West Bank and 5 dunums in the Gaza Strip). The highest average area of holdings, of 25 dunums, was in Tubas, Jericho and the Jordan Valley. Typically, agricultural holdings in Palestine are small

5 MoA, Agriculture Sector Strategy, 2016-2014.
6 Idem.
7 PCBS, Key Characteristics of Agricultural Holdings in the Palestinian Territories/Agricultural Census/Livestock in Palestine/Agricultural Census 2010.

due to the fragmented and divided nature of agricultural holdings resulting from issues related to inheritance cases, lack of appropriate legislation to protect agricultural lands from fragmentation, as well as Israeli policies and attacks, including the confiscation, vandalisation and destruction of land.

Agricultural holdings are divided between livestock and mixed holdings, with livestock holdings reaching 14,241 and representing 12.8% of total agricultural holdings in the Palestinian territories, of which 10,879 holdings (76.4%) were in the West Bank and 3,362 holdings (23.6%) in the Gaza Strip. Mixed holdings reached 17,893, accounting for 16.1% of total agricultural holdings in the Palestinian territories, including 14,762 holdings (82.5%) in the West Bank and 3,131 holdings (17.5%) in the Gaza Strip. Livestock and mixed holdings are similar to plant holdings in terms of average area covered, and are likewise dominated by smallholdings. For example, 61% of livestock holdings that have cows (1,263) do not exceed three heads, 65% of livestock holdings that have sheep (8844) do not exceed 19 heads, and 66% of holdings that have goats (5350) do not exceed 19 heads.

2.5. Water resources for agricultural purposes

The water sector is one of the most vital sectors in the sustainable agricultural development process at the national level. The Israeli occupation's deliberate neglect and its constraints on water development, for decades up to the present day, have directly contributed to hindering agricultural development opportunities. Israel's control over water resources has been for the benefit of Israeli development needs without taking into consideration Palestinian water needs, or Israel's obligations under signed agreements. The critical situation and performance of the water sector is reflected by the limited irrigated agricultural areas in the Palestinian territories in general, constituting only 12% of agricultural land in the West Bank, in comparison to 77% in the Gaza Strip, 37% in Jordan and 59% in Israel.

In the absence of significant surface water sources, along with the restrictions placed on Palestinian investment in infrastructure for water resource development (such as springs for example) in Area C, groundwater remains the primary source of water in the Palestinian territories. However, Palestinians extract only 20% of the renewable groundwater quantities in the West Bank, while Israel extracts large amounts of water, exceeding 50% of the renewable quantities without the consent of the Joint Water Committee, which is supposed to regulate and manage shared water issues in accordance with the Oslo Agreement. In fact, Israel extracts more than 1.8 times of its share under the Oslo Agreement, creating risks for ground water well levels and making low quantities of water available to Palestinians reliant on the pumping of shallow wells.

The estimated total water used for agriculture does not exceed 150 million cubic meters annually in the Palestinian Territories, with the West Bank using 60 million cubic meters and the Gaza Strip 90 million cubic meters. This amount represents 45% of total water consumption, which directly limits the prospects for the development of irrigated agriculture, which could have an important economic, social and political role in rebuilding the Palestinian economy.

Despite the significant interest of farmers in increasing the irrigated agricultural area, especially in using protected agriculture, which still provides a relatively high level of financial return, the transformation and growth of irrigated crops in the West Bank is hindered by Israeli restrictions on the rehabilitation of old agricultural wells and the number of licenses granted to new agricultural wells and drought-affected springs. It is worth mentioning that the growing demand for water due to steady population growth is creating a crisis in the availability of water, leading to increases in the price of water and the cost of delivery to farmers. This has contributed to the growing phenomenon of unlicensed wells and pumping practices.

The amount of water used in agriculture in the Gaza Strip is estimated to be approximately 90 million cubic meters annually, which is equivalent to almost 54% of the total water consumption in the Gaza Strip. The excessive use of groundwater has led to poor water quality and saltwater intrusion from seawater into the groundwater. The proportion of water available for drinking and pumped from underground wells does not exceed 10%. As an alternative solution to water

shortages, Palestinians in the Gaza Strip have been drilling private wells and desalinating seawater for domestic and agricultural use, which has further exacerbated problems faced by its water sector. The water sector is facing a dangerous situation that may become irreversible within the coming three years if reasons for its deterioration are not rapidly addressed.

2.6. Agricultural production

2.6.1. Plant production

Plant production in the Palestinian territories fluctuates from year to year due to rainfall fluctuations and the cycle of high-yield and low-yield years of olive trees. Despite this, plant production has not experienced significant changes over the last decade. No significant change occurred in terms of the relative distribution of varieties of different crops, which is characterized in general – and especially in the West Bank – by relatively low value crops and a low percentage of irrigated agricultural areas. Olive tree cultivation covers the largest agricultural area in the West Bank, occupying approximately 57% of cultivated land, while field crops, vegetables and other fruit trees occupy the remaining area, each covering 24%, 10% and almost 9%, respectively. In the Gaza Strip, vegetable crops constitute 32% of the total cultivated area, followed by olive trees and other field crops and fruit trees, occupying 24%, 23% and 21% respectively of the total cultivated area in the Gaza Strip.

In addition to the aforementioned concentration of low-value crop production, the Palestinian plant production sector, especially in the West Bank, is suffering from low productivity per acre as a result of the nature of plant production and the low percentage of irrigated crops. According to a report prepared by the Quartet, the productivity per dunum in the Palestinian territory was estimated to be 0.6 tons, while it reached 1.2 tons in Jordan and 1.4 tons in Israel. Per dunum productivity in the Palestinian territories differs by region and types of crops cultivated.

Over the last ten years, the Palestinian territories have witnessed an expansion of plant production due to land reclamation and various agricultural development projects implemented by the Ministry of Agriculture and NGOs working in the agriculture sector. Many of these interventions focused and are still focusing on the horizontal expansion in agricultural production and increased agricultural cultivated areas. Despite the importance of horizontal agricultural expansion for agricultural development and the protection of land from confiscation and settlements, the opportunities to continue this expansion are diminishing, if the competitiveness of other agricultural sub-sectors, as well as economic and social sectors is not taken into consideration. Hence, achieving a transformation in plant production to keep pace with the continued growth in local international market demands will require a focus on improving agricultural technology and encouraging the vertical expansion of the plant production sector by improving agricultural services and investing in intensive agriculture that could achieve greater economic returns and greater employment opportunities.

2.6.2. Animal production

Animal production plays a major role in improving the lives of families in terms of providing a source of income and food (protein) to a large number of households in the Palestinian territories. The number of households depending primarily or secondarily on animal production is 32,200 households[8]. According to the results of the livestock survey conducted in 2013, livestock population was estimated as follows: 33,980 cows, 730,894 sheep, 215,335 goats, 2,058 camels, 32.5 million broilers (of which 994,600 were mothers), 1.8 million laying hens, 546,400 turkeys, 19,690 rabbits and 46,226 beehives. There are also a large number of domestic animals, including 258,900 chicken, 285,600 pigeons, and 5,000 turkeys, 29,100 rabbits, 20,000 quail, and 29,700 of other types.[9]

8 PCBS, Livestock Survey in Palestine, 2013.
9 Idem.

Ruminants (cows, sheep and goats) depend on an intensive or semi-intensive breeding system for their livestock. Intensive production entails confining livestock in narrow spaces, where they are fed, watered and milked without being released to graze. This system is adopted mainly by cow breeders (87%) and to a lesser degree by sheep and goat breeders[10]. Semi-intensive production (traditional) allows livestock to graze, while providing supplementary nutritional feed at the same time. Intensive production requires a higher capital investment in infrastructure and administrative systems than the semi-intensive production system. In addition, intensive production requires high technical experience and knowledge in farm management, which is absent among many farmers.

There are two types of production systems in the dairy sector: the traditional and industrial systems. The traditional production system includes small and medium-sized breeders, who sell their products to consumers mainly at the local level, and cattle breeders who produce cow's milk annually.

In the West Bank and the Gaza Strip, there are 13 ruminant slaughterhouses, including eight in the West Bank and five in the Gaza Strip, in addition to nine poultry slaughterhouses in the West Bank and one in Gaza.

In the poultry sector, there are also 19 hatcheries in the West Bank and 4 in the Gaza Strip, producing 64,525 chicks in 2012 (0.4324 million layer and 64.0916 million broilers) and 91,861,700 eggs ready for hatching (1,158,700 layer eggs and 90,703,000 broiler eggs).[11] During the 2011/2012 agricultural year, the total production of poultry meat reached 72680 tons.[12]

Nutrition constitutes the main cost in livestock production, occupying 75-85% of total milk production costs, and 55-65% of the total costs associated with small ruminant animals. More than 95% of wheat feed and 85% of protein feed is imported from Israel to feed sheep and goats. Furthermore, most of feed and coarse fodder (high-cellulose feed, such as hay, straw and grass) to feed dairy cattle is imported from Israel. Feed supply, whether in terms of quality or quantity, is still unable to cover the existing need. The continuous rise in feed prices over recent years has led to increasing production costs, forcing many farmers to sell their livestock or use low-quality forage (low quality protein mixture) to feed their cattle. The significant reliance on imported inputs consequently resulted in the reduction of livestock productivity and its poor quality.

2.7. Agricultural services

Governmental and non-governmental organizations, as well as private sector companies provide a wide range of services to Palestinian farmers. These services include agricultural extension services (including its various components and elements of agricultural education and awareness raising), veterinary services, agricultural research and funding. In general, the agriculture sector suffers from weak agricultural services, hindering sound agricultural investment and weakening the sector's competitiveness and profitability. The following sections present the status of the main agricultural services provided in Palestine:

2.7.1. Agricultural research and education

The Palestine National Agricultural Research Center (NARC) is responsible for conducting agricultural research, through its five research units and seven agricultural experiment stations, of which five are located in the West Bank and two in the Gaza Strip. In addition, five faculties of agriculture in An-Najah University, Hebron University, Al-Azhar University, Palestine Technical College (Khadoury) and Al-Quds Open universities, offer agricultural bachelors and masters' degrees in agriculture-related disciplines. There are two agricultural secondary schools; Beit Hanoun Agricultural School in Gaza, and Al-Aroub Agricultural School in the West Bank. In addition to these educational institutions, there are NGOs that conduct agricultural research, such as the Jerusalem Institute for Applied Research (ARIJ) and the Land Research Center.

10 MoA, Livestock Strategy 2018-2015.
11 Palestinian Central Bureau of Statistics, http://www.pcbs.gov.ps/Portals/_Rainbow/Documents/Livestock-2012-E208%-.htm
12 Ministry of Agriculture, Livestock Strategy 2019-2015

NARC, agricultural colleges and non-governmental research centers have relatively large areas of land, experiment stations, as well as basic and modern equipment that facilitate access to externally funded projects. They are also well distributed geographically. However, there are weaknesses in the coordination mechanisms between these institutions and some duplication of research. Furthermore, institutions face challenges in renovating and maintaining their tools, equipment and facilities. Universities continue their exploratory and theoretical research in isolation from the reality of Palestinian farmers and the national extension service system, and without coordinating with national agricultural research centers. All knowledge generating institutions are influenced by fluctuating and unsustainable financial resources allocated for research.

Many students graduate from universities and agricultural training programs annually, but their qualifications and abilities are not aligned with the requirements and needs by the labor market. Furthermore, academic research has minimal impact despite meeting global quality standards. The country's lack of a national reference library for agriculture weakens policy advice abilities. Unfortunately, consulting services in the field of agricultural policy are also weak.

2.7.2. Agricultural extension services and training

MoA provides extension services to farmers on a regular basis and indirectly through its extension units distributed in all governorates. These services are offered through companies supplying production inputs, which in turn provide agricultural extension services to farmers as part of their purchase process. In addition, a number of civil society organizations provide such services as part of their agricultural development projects, which are usually limited in scope and lifecycle. As per farmers' perspective, MoA and companies supplying production inputs are the most important sources of extension services.

The Palestinian National Agricultural Extension Strategy (PNAES) of 2015-2018 refers to the limited scope of coverage of extension services that, in general, are deemed insufficient to cover all agricultural holdings effectively, given that the individual visit to farms is the most common method used when providing extension services. In addition, agricultural testing stations do not play an active role in providing advice or responding to the problems faced by farmers.

The lack of coverage of operational costs is one of the key factors adversely influencing the efficiency and effectiveness of governmental agricultural extension services in Palestine. Agricultural extension officers are not allocated sufficient financial resources to ensure their adequate coverage of all areas, in addition to the lack of financial allocation dedicated for agricultural experiments and observations, which are some of the agricultural extension methods.

2.7.3. Veterinary services

Veterinary services play a pivotal role in animal health, food hygiene and public health protection. Livestock productivity is highly dependent on the availability of high quality, regularly available animal health care services. Veterinary services in the Palestinian territories, which are provided for a great part by MoA, include free animal vaccination against foot-and-mouth disease and bucelosis, while fees are charged for vaccination against other diseases, and the provision of clinical and laboratory diagnosis. In addition, veterinary services are generally provided free of charge by MoA, including when such services include animal pathology services, control programs, eradication of important diseases, such as bird pathogenicity influenza, follow-up of slaughterhouses and the general health of consumers through animal products safety monitoring and animal tracking via the national identification program. The government provides veterinary services in the West Bank through its veterinary clinics affiliated to MoA and via the private sector.

2.7.4. Plant protection

Plant protection services play a vital role in protecting agricultural plant production through the implementation of regulations and phytosanitary measures that prevent the introduction and

spread of agricultural pests at the national level. These services provide all international trade requirements and agreements related to plant protection and quarantine. MoA is the competent authority responsible for recording, controlling and regulating all national trading operations and the use of agricultural pesticides. The Ministry also has a key role in determining the safe use of pesticides and chemicals, and in rationalizing their use and direct effects on agriculture, the environment and food safety. Moreover, the private sector undertakes some extension activities in this area, focusing on marketing aspects.

2.7.5. Agricultural and rural funding

The annual demand for agricultural loans is estimated at about $ 200 million, while only 30% is available, since a large proportion of agricultural funding comes through traders, brokers and borrowing from relatives and acquaintances. Palestinian financing and banking institutions perceive the agriculture sector as a high-risk sector. In 2015, the Palestinian government established the Palestinian Agricultural Credit Institution, under the Decree Law No. (8) for the year 2015, to be a governmental mechanism that helps Palestinian farmers and agricultural companies obtain loans for the establishment and development of agricultural projects, and for agricultural production and inputs projects that are in line with the agriculture sector development strategy. The association is in process of developing its administrative and financial systems to ensure the implementation of its tasks.

2.7.6. Agricultural insurance

Due to the high-risk factors and uncertainties in agricultural work, agricultural insurance activities face many problems and obstacles, namely high costs, resulting in an unfeasible service for farmers given its pure commercial base. The Palestinian government created the Risk Prevention and Insurance Fund based on the Decree Law No. (12) for the year 2013 to be the governmental institution specialized in the management of risks that hinder agricultural development in Palestine.

It also aims at reducing the impact of these risks by implementing various interventions, tools and methods to mitigate damages caused to the agriculture sector, and to enable Palestinian farmers to cope with the negative effects of climatic and political changes. Despite the establishment of the Fund by a decision of the Palestinian government, it still needs to activate its work and funding mechanisms to be able to accomplish the tasks assigned to it by law.

2.7.7. Agricultural marketing and post-harvesting services

The General Directorate of Marketing ensures access of agricultural products to local and international markets through focusing on the concept of producing what can be marketed instead of marketing what is produced. The Directorate also protects national products, provides economic and marketing information to investors and producers, and develops measures for export crop development. A group of Palestinian private companies contribute to the export of local agricultural products abroad, especially the Gulf, America and Europe. Local companies and some traders work on marketing agricultural products in Israel. Many of the official and civil society organizations, companies, as well as farmers' associations and cooperatives organize exhibitions, marketing days and festivals for marketing of national products, such as grapes, apricots, oil and cooperative products, dates and snake cucumber.

2.8. Agricultural institutions

2.8.1. Agricultural legislative framework

The Agriculture Law No. (2) of 2003, as amended, for the year 2005, constitutes the basic legal framework that regulates the agriculture sector, in addition to many agricultural by-laws that have

been adopted since the issuance of the Agriculture Law. During the past, various laws and by-laws have been issued, namely to include the Agricultural Pesticides by-law, Plant Product Smuggling by-law, Fodder by-law, Animal Recording and Identification by-law, Veterinary by-law, Animal health Control and Veterinary Quarantine by-law, Risk Prevention and Agricultural Insurance law, and the law of the Palestinian Agricultural Credit Institution. A by-law for the National Center for Research was also adopted.

Despite these achievements, there is still an urgent need to prepare many of the regulations and instructions to complete the legal framework, and ensure its enforcement. Laws and regulations presented to the Council of Ministers that are awaiting approval include a draft law on specialized agricultural councils, in addition to modifying some of the approved regulations, including (the agricultural quarantine by-law that has been replaced by the draft law on phytosanitary). There is a set of regulations that are currently being modified including livestock and poultry markets, agricultural fertilizers, bio-safety, plant products smuggling, slaughterhouses, poultry farms and the agricultural law.

The Palestinian legislative framework suffers from outdated laws, dating from the era of the Ottoman Empire, the British Mandate and even the Israeli occupation. Some of these laws are still in effect, consequently impeding agricultural development processes. In the case of accession to international treaties and conventions, Palestinian laws should be updated to remove any incoherence between international conventions and the national legislative framework.

The recognition of the United Nations General Assembly of the State of Palestine – represented by the Palestinian Liberation Organization - as a non-member observer in the United Nations system in November 2012, resulted in a turning point to the Arab-Israeli conflict, as well as the international community's perspective on Palestine and Palestinians. This enabled the State of Palestine to join international frameworks, through international organizations and treaties. It should be noted that Palestine's accession to international organizations and treaties affects the work of the agriculture sector. The State of Palestine joined the United Nations Economic and Social Commission for Western Asia (ESCWA) that aims to stimulate economic and social development in member countries. In 2015, the State of Palestine also joined the Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and Their Disposal, Convention on Biological Diversity of 1992, the Cartagena Protocol on Biosafety of 2000, the United Nations Framework Convention on Climate Change of 1992, the Paris Agreement within the United Nations Framework Convention on Climate Change, the Convention on the Law of Non-Navigational Uses of International Watercourses of 1997. According to the Negotiations Affairs Department report on organizations and treaties related to the agriculture sector in 2015, there are more than 20 international organizations and treaties to join as a future priority for the Palestinian government.

MoA's budget for 2016 totaled about 105 million shekels distributed on wages and salaries as well as operational and capital expenditures, in addition to approximately 24 million shekels on development projects. Within this context, the Ministry has historically suffered from weakness in its financial allocation, which impeded its ability to implement development plans and upgrade its services as desired, including the efficient and effective sector coordination.

2.8.2. Ministry of Agriculture, MoA

The MoA is the main governmental body that leads agricultural development and is the umbrella under which civil society and international institutions work. Development activities in the agriculture sector are guided by government development. The Ministry has 1,710 employees with various technical and managerial disciplines divided between the southern (472 employees) and the northern governorates (1,238 employees, including 440 employees working on regular contracts and day laborers), within an organizational structure led by the MoA.

2.8.3. Palestinian Agricultural Disaster Risk and insurance fund, PADRIF

The Palestinian government established the Risk Prevention and Agricultural Insurance Fund based on the Decree Law No. (12) for the year 2013 to be the governmental institution specialized in the management of risks that hinder agricultural development in Palestine. It also aims at reducing the impact of these risks by implementing various interventions, tools and methods to mitigate damages caused to the agriculture sector, and to enable Palestinian farmers to cope with the negative effects of climatic and political changes. Despite the establishment of the Fund by a decision of the Palestinian government, it still needs to activate its work and funding mechanisms to be able to accomplish the tasks assigned to it by law.

2.8.4. Palestinian Agriculture Credit Institute, PACI

In 2015, the Palestinian government established the Palestinian Agricultural Credit Institution, under the Decree Law No. (8) for the year 2015, to be a governmental tool and mechanism that helps Palestinian farmers and agricultural companies to obtain loans for the establishment and development of agricultural projects, and agricultural production and inputs projects, in line with the agriculture sector development strategy. The association is in the process of developing its administrative and financial systems to ensure the implementation of its tasks.

2.8.5. Ministries and governmental organizations

There are many ministries and public institutions that play key roles in the development of, organization and service provision to the agriculture sector. Development objectives and agricultural progress cannot be achieved in isolation of these actors, as the policies and investments that fall within the mandate of these ministries and institutions are crucial to the success of policies, programs and development initiatives in the agriculture sector. Some of these institutions include the following: the Water Authority, Environment Quality Authority, the Palestinian Investment Fund and its affiliated companies specialized in agricultural investment, the Ministry of National Economy, Ministry of Local Government and local government units, the Ministry of Finance and Planning, Ministry of Health, Ministry of Labor, the Ministry of Women's Affairs, Ministry of Interior, Governorates, Palestinian Central Bureau of Statistics, PECDAR, Land Authority, Palestine Standard Institution and the Palestinian Investment Promotion Agency. These organizations implement their interventions via their main headquarters in the city of Ramallah and through their branches and directorates deployed in all the Palestinian territories, where most of them are represented in governorates and major cities.

2.8.6. The private sector, non-governmental and farmer's organizations

Non-governmental and civil society organizations, amounting to 35 organizations, have historically played key roles in agricultural development before and after the establishment of the Palestinian National Authority. They are characterized by their long expertise enabling them to cope with changes. Civil society and non-governmental organizations working in the agriculture sector play a complementary, integral role with the Ministry of Agriculture, including the harmonization of their projects with the Ministry's strategies and policies, as well as the provision of specific technical services for the Ministry in the implementation of some development projects, such as land reclamation, agricultural roads and water harvesting interventions.

The private sector and farmer's organizations also play a key role in the agricultural production value chain, and in investing in the agriculture sector and providing various business services needed by farmers in the production and post-harvest processes. The private sector is the only player in the food processing sector and in local and external marketing. Thus, coordination with

and involvement of the private sector and farmer's organizations, as well as their encouragement to invest in the agriculture sector are key pillars in the Palestinian agricultural development efforts.

Private sector organizations that are directly involved in the agriculture sector include the following: Chambers of Commerce, Industry and Agriculture located in all provinces and their public union, based in the city of Ramallah, the Palestinian Food Industry Union, the Palestinian Trade Center (PalTrade), the Private Sector Coordinating Council, Union of Agricultural Cooperative Associations, agricultural marketing and export companies, the Palestinian Shippers Council, and companies of agricultural inputs, including nurseries. The private sector organizations also include farmers' organizations and unions, and the ten agricultural commodity councils that have been formed based on the first article of the amended Agriculture Law No. (11) for the year (2005) and under special regulations they are classified as semi-government institutions. These councils provide a framework for all stakeholders involved in the aforementioned commodities. The preparation of the draft law of the General Union of Agricultural Councils is in progress, with the aim of regulating the work of these councils to ensure sustainability and organization of work.

2.8.7. International development partners

A large proportion of the agriculture sector projects are funded and overseen by donors and international institutions, through project-based arrangements. These projects are often implemented either by state institutions, such as the MoA, Water Authority and PECDAR, or by Palestinian civil society organizations or foreign NGOs that are registered in Palestine. In addition to sectoral and cross-sectoral coordination, the agriculture sector working group is an important mechanism for coordinating stakeholders' efforts in the agriculture sector. The group includes Palestinian and international organizations, as well as donors.

3. Situation Analysis: Progress achieved from 2014-2016 and factors influencing agricultural development and priority issues

As per the guidance of the Palestinian government for the strategic process of 2014-2016 and in cooperation with MoA, partners have adopted a results based management approach focusing on results and impact. This approach links all administrative operations with achieving goals of various programs and interventions. Hence, partners developed knowledge management tools in the agriculture sector, including databases, capacity building of institutions in enhancing skills and capacity in results based management. Despite these efforts, they did not fully achieve the planned results during the period of the strategy. This is reflected in the following sections based on the strategic planning review process report of 2014-2016.

3.1. Achievements and Gaps: The Agriculture Sector Strategy (2014-2016) as a guiding framework to determine the vision and objectives

The Agriculture Sector Strategy of 2014-2016 was designed to guide agricultural development programs, projects and initiatives towards achieving its vision that aspires to have "a sustainable and feasible agriculture sector that can compete domestically and externally; and can effectively contribute to enhancing food security and the connection between the Palestinian people and their land, while also enhancing Palestinian state-building efforts through resource sovereignty." The Strategy defined four sectoral objectives, with underlying strategic priorities.

Strategic objectives and priorities as stipulated in the Agriculture Sector Strategy (2014-2016)

Strategic Objective	Strategic priorities
First strategic objective: Enhanced farmers' resilience and attachment to their land, as well as the contribution of the agriculture sector in providing requirements for the development of the State of Palestine.	Intensify efforts to rehabilitate the agriculture sector in "Area C"
	Rehabilitate what the Israeli occupation has destroyed and support farmers who are affected by the Israeli occupation
	Support and protect marginalized groups, especially small farmers, poor in rural areas, and women Bedouins
	Provide agricultural control at borders and build national laboratories
Second strategic objective: Efficient and sustainable management of natural resources.	Improve management of supply and demand on water used in agriculture
	Sustainable management of land, increase in land area, reclamation of land, and sustainable utilization of agricultural biodiversity
	Reduce the negative impacts of climate change and natural disasters
Third strategic objective: Enhanced agricultural production, productivity and competitiveness, as well as enhanced contribution of agriculture to food security.	Support a sector-wide shift towards intensive and semi-intensive production systems and apply modern agricultural production systems in line with sustainable development requirements
	Steer agricultural production to meet domestic and external market needs and enhance competitiveness
Fourth strategic objective: The agriculture sector has effective and efficient capacities, institutional frameworks, legal environment, and agricultural services.	Improve the efficiency and effectiveness of agricultural institutions and develop their legal and coordination frameworks
	Train and rehabilitate the human resources involved in agriculture (men and women)
	Provide incentives to investment and partnership between the public and private sectors
	Improve extension services, plant protection, veterinary services, research and agricultural marketing
	Develop credit and financing systems for rural areas, risk prevention and agricultural insurance

The strategic review process revealed that 42 programs were implemented throughout 2014-2016. Out of these projects, at least five will continue up to 2018. The projects' total budget reached US $ 132.47 million. More than half of the projects (51%) were implemented in the West Bank, whereas 15% were implemented in the Gaza Strip and 34% in both areas. The following paragraphs summarize the key achievements accomplished within each of the four strategic objectives, while presenting the factors positively and negatively influencing performance.

First strategic objective: Enhanced farmers' resilience and attachment to their land, as well as the contribution of the agriculture sector in providing requirements for the development of the State of Palestine.

In cooperation with development partners, MoA rehabilitated land and water resources to include the rehabilitation and reclamation of 18,500 dunums of agricultural lands, construction and rehabilitation of 640 kilometers of agricultural roads, as well as the provision of around 4.7 million cubic meters of water for agricultural purposes through the construction and rehabilitation of 300 wells and underground cisterns. Furthermore, 1.5 million forest and pastoral seedlings were provided to plant around 2000 dunums. Half of these rehabilitation activities were implemented in Area C, along with the provision of emergency support for hundreds of households whose homes, farms, barns and income resources were affected by Israeli attacks. This support also included the provision of legal support services, the construction and rehabilitation of animal barns and farms and coordination with various parties to provide shelter and compensation for farmers, whose houses were demolished. During the Israeli war on Gaza, MoA, in cooperation with its local partners, conducted a comprehensive assessment of agricultural damages, which was used in the preparation of the National Early Recovery and Reconstruction Plan for Gaza.

Moreover, MoA and its partners implemented a series of projects to rehabilitate agricultural lands and reconstruct facilities destroyed in the Gaza Strip. This included the rehabilitation and reclamation of 25,000 dunums of agricultural land, the rehabilitation of 80 kilometers of agricultural roads, the reconstruction of two veterinary clinics, 500 greenhouses and 130 agricultural pools and the distribution of 750,000 seedlings for planting in destroyed lands.

Agricultural extension and training activities targeting more than 400 small farmers in marginalized and vulnerable groups were intensified. In addition, 15 agricultural pools with a total capacity of 20,000 cubic meters were built in the Jordan Valley, along with the rehabilitation of one agricultural well, and the construction of 55 kilometers of water pipes in many marginalized areas, benefiting around 300,000 citizens, half of whom are women.

Despite the progress towards enhancing the resilience of farmers and their empowerment, there is still a lot to accomplish, especially in light of the continued Israeli attacks and policies that impede sustainable development, and exacerbate the deterioration in the economic, political and social conditions. The steadfastness of female and male farmers is a national priority and higher agriculture policy interlinked with all other agricultural development pillars, particularly those related to enhancing agricultural services, production and productivity, and sustainability of natural resources, as well as developing legislations and managing the sector.

Second strategic objective: Efficient and sustainable management of natural resources

Throughout 2014-2016, activities related to increasing the efficiency and sustainability of agricultural resources focused on increasing areas cultivated by high-quality crops, grasslands and forests. Interventions also focused on guiding and training farmers on the proper methods in agricultural resource management, especially in water conservation, the development of water sources and their use in agriculture. In addition to the aforementioned quantitative achievements in land and well rehabilitation, a procedure manual for treated wastewater to irrigate crops was developed, along with a special procedure manual for licensing, extraction, drilling and rehabilitating wells. MoA and agricultural development partners developed a Climate Change Adaptation Strategy and action plan. They also participated in the National Committee for Combating Desertification.

During the last three years, MoA continued its efforts to reduce exposure of farmers to the impacts of climate change, by developing the capacities of extension officers in this area, and the implementation of hundreds of hours of agricultural training and extension services in the field related to soil moisture in rain-fed areas, the introduction of modern methods of water harvesting, as well as enhancing awareness of farmers regarding the need to shift to the most drought-resistant farming systems.

Despite these achievements, the strategic review process revealed some gaps in relation to the achievements of the second strategic goal, particularly because all performance indicators have been only partially achieved. Out of the total planned targets, only half of the planned land areas were rehabilitated, and two thirds of agricultural lands were constructed and rehabilitated, in addition to the provision of part of the planned amount of water. This was coupled by greater needs for rehabilitation and agricultural production with the aim of keeping pace with population growth. In addition, problems of the water sector worsened, particularly in the Gaza Strip. Limited achievements under this objective were mainly due to the lack of necessary financial resources provided in a timely manner, the delayed implementation processes as a result of failure to obtain approvals and licenses required from the Israeli authorities, and the limited capacity building in aspects of planning and guidance on issues related to climate change adaptation.

There is no doubt that there is still a great need for rehabilitation and reclamation of land and water resources, including the construction and rehabilitation of agricultural roads, and the reclamation of grazing areas necessary for livestock development. The need still exists for intensified action to implement the Climate Change Adaptation Strategy and action plan, and provide technical assistance in this area, requiring the consequent provision of funding and human resources necessary for this.

Third strategic objective: Enhanced agricultural production, productivity and competitiveness, as well as enhanced contribution of agriculture to food security.

Throughout 2014-2016, many institutions geared their efforts to enhancing the production and competitiveness of various sectors in line with the Palestinian government's policy to guide development efforts towards increasing economic growth, including increased export capacity of Palestinian products and increasing the volume of production in the economic sectors. The agriculture sector has benefited from these institutional directions. The MoA and local and international partners have implemented a number of programs and projects aimed at developing agricultural production through supporting investment in intensive and semi-intensive production systems and encouraging increased production horizontally. They also focused on improving market mechanisms and producers' relations in agricultural value chains by developing market approaches. While it is early to assess these programs as they are still in the early implementation phases, a number of these projects have achieved significant early results that are worth considering and evaluating, particularly in relation to the enhancement of production quality and the opening of new marketing channels for the benefit of small producers.

In relation to the support of the transition to intensive and semi-intensive production systems and the application of modern systems, development partners' efforts to encourage and motivate farmers focused on cultivating new varieties and adopting new production methods that improve production and productivity through the implementation of hundreds of activities related to the distribution of production inputs, providing guidance, awareness and education activities. Due to the lack of information, the strategic review process was not able to verify if these interventions had any tangible impact on enhancing production and productivity. Nevertheless, there are strong signs indicating improvement in production and productivity of targeted farmer. This requires further monitoring and evaluation. In any case, there is still much to be done to achieve the transformation in agricultural systems, especially in relation to establishing and strengthening marketing relations, designing appropriate incentives, as well as providing market information that encourage the process of transformation. Minimal achievement has been reported, because insufficient attention was dedicated to these areas.

MoA and its partners worked on guiding agricultural production to meet domestic and foreign market requirements, and improving competitiveness in these markets. A national computerized animal recording and identification system was developed and implemented, laying the basic information about livestock in Palestine and increasing the sector's capacity to respond to the basic requirements to develop markets for local dairy and meat.

Furthermore, more than two million seedlings of productive and competitive high economic values were distributed, including palm trees, avocado, mango, guava, seedless grapes, as well as different varieties of almond trees and medicinal plants. MoA continued its efforts to support and encourage agricultural marketing, as well as the control of markets and crossings, as hundreds of special import permits for seeds, fertilizers, pesticides and animal products, etc., were issued. The Ministry also followed and facilitated the export of thousands of tons of agricultural products through private-sector companies, including the issuance of private health certificates to export agricultural products.

In collaboration with its partners, MoA updated and developed human resources, equipment and quality procedures at national laboratories, including veterinary and health and food safety laboratories, as well as the National Center for Agricultural Research (NARC). These interventions increased the demand for tests by three times. Also, the Ministry developed the first draft of the quality control manual for implementing ISO 17025 Central Veterinary Laboratory specifications and established a special research unit for olive oil and continued to work on the development of capacities related to sanitary and phytosanitary regulations.

Despite these achievements, there is still much work needed to transition towards intensive and semi-intensive agriculture in high value and competitive crops that are able to effectively contribute to food security. What has been achieved in terms of quantity is just the beginning of a long-term transitional process. Achievements have been largely limited to the plant production sector and less so in the livestock production sector, where opportunities to increase production and productivity is abundant, particularly through supporting national capacities in breeding mothers, as well as encouraging transformation of intensified and closed production systems, and building capacities of breeders to adopt modern farm management systems and approaches. Perhaps the key reasons for limited achievement in this area are associated with the aforementioned Israeli occupation policies and procedures, along with the lack of funding and coordination between development partners. In addition, the lack of attention to overcome shortcomings in economic relations of various market systems is another key reason which impedes development of production and productivity, particularly that of funding interrelationship in the value chain, and irregular market information at the edge of various production chains. Furthermore, the limited technical expertise and insufficient incentives both hinder the necessary momentum for the process of transformation in order to achieve concrete results at national level.

Fourth strategic objective: The agriculture sector has effective and efficient capacities, institutional frameworks, legal environment, and agricultural services.

In cooperation with local and international partners, MoA is improving the efficiency and effectiveness of agricultural enterprises and the development of legal frameworks and coordination in a number of ways. These achievements include the completion of agricultural laws and regulations, including the ratification of the National Animal Recording and Identification by-law, the Veterinary Products by-law, Agricultural Credit Law, Agricultural Research Center by-laws, and a proposal for amending the Plant Products Smuggling by-law. MoA also completed the by-laws for the use of agricultural pesticides. As part of leading national planning processes for olive oil and livestock sectors, and for the counseling and agricultural research technical sectors, national strategies for these sectors were prepared.

In terms of training and human resource capacity building in the agriculture sector, the most significant achievement was related to the provision of agricultural extension services and awareness raising activities for farmers. The capacity building of the Ministry's staff, however, was limited and restricted to a small number of training workshops and learning visits implemented as

part of funded projects and benefiting a limited number of employees. The Agricultural Insurance and Risk Prevention Fund was established and its by-laws approved, along with the by-laws for the Agricultural Credit Law.

One of the most important achievements in relation to enhancing investment and improving relations between the public and private sector was the re-activation of the agricultural councils in line with the requirements of enhancing governance of the various agriculture sectors and communication mechanisms between various production chains, for the benefit of small-scale producers. In this regard, the Law on the Encouragement of Investment in Palestine was modified to exclude the agriculture sector from income tax.

In general, the strategic review process concluded that achievements made at the institutional / enabling environment level and related to the agricultural services sector did not rise to the expected level of change required to achieve the three strategic objectives, nor the economic development objective. Despite the importance of accomplishments made mainly on by-laws and institutional arrangements, such measures alone remain unable to bring about any change in the absence of executive measures and tools. Most of the by-laws and regulations adopted require procedures and executive mechanisms. Organizations formed are in their early stages and still lack the required human resources.

Furthermore, agricultural councils require further organizational development, particularly in terms of determining their role and purpose, as well as the development of specific by-laws for their members and their decision-making processes. This should be done based on lessons learnt from international and regional experiences in this field. Hence, more efforts are needed to enhance services, particularly because accomplishments were restricted to some improvements in agricultural and veterinary testing services, and enhancing the capacities of agricultural human resources as a result of trainings conducted. However, improvements in the content of services and delivery are still needed.

3.2. Factors affecting the development of the agriculture sector

While a range of social, political, economic, environmental, technological and legal factors play a supportive role to national efforts aimed at sustainable agricultural development; these same factors also play an adverse role. Throughout the last three years, the most significant factors supporting sustainable agricultural development that are expected to continue their positive impact on development efforts in the coming few years are as follows:

- Socio-cultural importance of land and designation of its use for agricultural purposes, as an essential element in instilling Palestinians' rights and protection from expropriation, contributed significantly to the achievement of the first objective.
- Strategic orientation of MoA's programs, and the commitment of civil society, and some international organizations and donors to support marginalized areas, Area C and the Gaza Strip, and support the resilience of its people have significantly contributed to the fulfillment of results anticipated in these areas.
- The presence of farmers, producers and entrepreneurs that are willing to experiment and adopt newly disseminated agricultural technologies had a significant impact on achievements related to enhancing productivity and production, despite the limited magnitude of such accomplishments.
- The relatively high literacy rate among Palestinian farmers, and their relatively good agricultural experience, as well as their awareness to the importance of developing new technologies to enhance their livelihoods and agricultural income have rendered extension services, awareness raising activities and technology dissemination easier.

- Increasing the profitability proved to be an important motivation for farmers to actively seek and adopt new production methods and techniques that were also provided to them by the extensions services in the country. Strong private sector with resources and interest to develop and expand its position in local, regional and international markets.
- Strong and experienced civil society, with grassroots that enable it to respond effectively and quickly to emergency and development needs and implement relevant projects.
- Donor's interest in developing the private sector and markets and their conviction that the agriculture sector is one component of economic development in Palestine.

On the other hand, there are other factors that had a negative impact on achieving objectives, and are expected to negatively impact sustainable agricultural development (see table below).

Factors	Adverse effects retaining sustainable agricultural development	Institutional arrangements
1. Continuation of Israeli occupation and its policies	1. Continued Israeli policies that lead to the loss of livelihoods and forced displacement of Palestinians in Area C, including demolition of houses and barns, and the confiscation of agricultural equipment. 2. Control of Area C and restricting social and economic development and freedom of movement and the construction of infrastructure projects. 3. Impeding issuance of any building permits or for the implementation of agricultural infrastructure projects in Area C 4. Continuation or deepening of the blockade imposed on the Gaza Strip, including restricting access to the border areas and reducing distances permitted for fishing. 5. Continued prevention on the import of dual-use production inputs that are essential in achieving a shift in production and productivity policy.	1. Financial resources will be dedicated for emergency situations. 2. MoA will regularly assess damages caused by Israeli occupation measures and policies, while the Ministry of Interior will publish them internationally, and demand international protection of Palestinian farmers. Technical assistance will be requested from competent United Nations institutions. 3. Civil society coalitions and alliances will document violations and use them in international advocacy campaigns.
2. Weak funding dedicated to agriculture sector development.	1. Lack of financial allocations for agricultural development projects. 2. Lack of financial allocations for operational costs for the management of the agriculture sector.	3. MoA will prioritize its objectives and activities in the case of the reduction in development activities. 4. Increasing government budget allocations to the agriculture sector 5. Activating the role of the sectoral working group on external funding for agricultural development.

Factors	Adverse effects retaining sustainable agricultural development	Institutional arrangements
3. Perspective that the agriculture sector has limited viability	1. Farmers' leaving land, and/or declining interest in land and other agricultural resources. 2. Weak involvement of youth in agriculture.	1. Highlighting success stories in the agriculture sector. 2. Highlighting the importance of agricultural work through community awareness campaigns with a focus on targeting youth and young women. 3. Motivating youth to invest in farming by working with credit and business services and production input institutions to provide them with the needed services for these young people, giving a particular focus on technical aspects.
4. Increasing global prices of agricultural inputs.	Inability of farmers to sustain their production and their obligation to reduce their scope of productive activities.	1. Working with financial institutions with the aim of encouraging them to respond to funding needs of farmers resulting from increasing high prices of production inputs. 2. Monitoring the impact of price changes on the economic conditions and farmers' livelihoods, and working with international institutions and donors to provide the necessary support without negatively affecting markets. 3. Working with the government to reduce tax rates on production inputs
5. Increased job opportunities in Israel	Farmers and workers leaving the agriculture sector influences negatively the ability to achieve goals related to increasing production.	1. Working with and promoting the Palestinian private sector to invest in the agriculture sector and food industries, especially in investments that require large manpower.
6. Illegal and unregulated dumping of Israeli agricultural products in local markets	The low competitiveness of local agricultural products, causing low demand and farmers' and merchants' losses	Intensifying market regulation processes and oversight of agricultural products.
7. Nonaccession of the State of Palestine to relevant United Nations institutions, particularly the Food and Agriculture Organization of the United Nations	Inability to join international committees and bodies of the United Nations organizations.	1. In-depth study of the feasibility of accession to international conventions and organizations and its impact on achieving the strategy, while supporting national efforts in this direction in coordination with the Palestinian Ministry of Foreign Affairs. 2. Adapting current legislative and regulatory situation in preparation to joining certain organizations and conventions.

Factors	Adverse effects retaining sustainable agricultural development	Institutional arrangements
8. Outbreak of trans boundary diseases	Loss of production and crop failure/death of animals	1. Monitoring diseases and establishing procedures for outbreak prevention. 2. Developing agricultural insurance services and compensation programs
9. Climate change, drought, and natural calamities.	Crop failure, as increased production costs and reduced productivity, as well as increased pressure on agricultural resources leading to significant loss of biodiversity and desertification.	Developing resources and policies for the Risk Prevention and Agricultural Insurance Fund
10. Weak capacity to keep up with technological progress	Low competitiveness of local products and abandoning production processes.	1. Working with the private sector to keep abreast of new technologies and encouraging their entry into the local market. 2. Providing temporary protection of local products against technological advances in competing states to prevent farmers' vulnerability and their sudden loss of livelihoods. 3. Continuous training of human resources in the agriculture sector to keep abreast of technical agricultural progress.

4. Vision and strategic objectives

4.1. Vision

Based on the review of the Agriculture Sector Strategy of 2014-2016, and the National Policy Agenda, the future vision of the agriculture sector is as follows:

"Sustainable agriculture; capable of competing locally and globally; and effectively contributes to strengthening food security, the bond between Palestinians and their land as well as their sovereignty over resources, towards building an independent Palestinian State."

This vision stems from agricultural development partners' conviction in the enormous potentials of the Palestinian agriculture sector and the ability of Palestinian farmers and producers to deservedly keep up with local and international market requirements to achieve the objectives of agricultural development while contributing effectively to overall national development goals. This vision also stems from the deep-rooted conviction that agricultural development is one of the most important development priorities for the State of Palestine, and directly associated with land protection instilling Palestinian rights. Land is one of the most important symbols of sovereignty and a special symbol for Palestinians. It is of extreme importance to economic development, fighting poverty and achieving food security for a significant number of Palestinians.

Agriculture sector development efforts have previously proven that land reclamation and cultivation effectively contributes to the protection from settlements and land confiscation, while enhancing Palestinians' bond with their land. Hence, development partners are committed to mobilizing all resources and necessary support to continue efforts focusing on cultivating, rehabilitating and reclaiming Palestinian land, while advocating for the right of Palestinians to do so. While development partners are aware that land reclamation and cultivation efforts alone are not enough to develop the agriculture sector, and make it a feasible source of livelihood, these efforts must be accompanied by enhancing competitive agricultural products and maximizing farmers' return from agriculture.

Investments in water, land, pastures and forestry development are an essential component in agricultural development efforts, as well as in promoting Palestinian farmers' bond with their lands, because these investments enhance the viability and competitiveness of agriculture. Hence, development partners assert the importance of developing all agricultural resources to include land, water, pasture and forestry- in their future development endeavors, including working with all partners to lobby and influence Israel and the international community about Palestinians' right to ownership and full disposition of all agricultural resources in the West Bank and Gaza Strip, including East Jerusalem.

Palestinian agricultural products have an outstanding reputation locally, regionally and internationallyfor several reasons, including product's quality and flavor, in addition to the desire to show solidarity with Palestinians. Agricultural products are highly competitive entering many markets and are in great demand. Development partners are aware that investment in various agricultural markets, both locally and globally is imposing a new reality, forcing stakeholders to support developing the sector in line with new market requirements and mechanisms. Unless it keeps pace with market requirements related to quantities, quality and price, as well as developing its ability to cope with the continuous and rapid pace of change in markets, the Palestinian agriculture sector will not be able to maintain its competitiveness and contribute to economic growth that it seeks to achieve. Hence, partners are determined to work towards increasing its competitiveness in areas that will achieve the greatest return for farmers and for the growth of the sector alike. This will be achieved through optimally utilizing available national agricultural and human resources. Expanding agricultural investment and control of agricultural technology

to increase agricultural production returns, can increase agricultural productivity to respond to the increasing demand for food. It can also achieve a better return for Palestinian farmers. All this will lead to increased food security in Palestine through the increased availability of high quality and nutritional value food commodities from local production, and improving economic access through reduced costs that are accessible to all local consumers.

The strategic orientation of increasing production and productivity with the aim of increasing agricultural competitiveness and its contribution to food security will not be at the expense of sustainability. All partners are committed to the principles of sustainable agriculture, which is based on responding to the present needs without compromising the needs of future generations. We are fully aware that the promotion of sustainable agricultural practices requires raising the awareness of farmers and other parties about sustainable agricultural production practices and directing production processes to support sustainability.

Within this context, and taking into account our vision to achieve competitiveness, we are committed to strengthening the institutional and legislative structure of the agriculture sector management in all its elements. We will provide particular attention to expanding the necessary infrastructure to achieve sustainable land and water resources, and the use of economic instruments to change behavior towards more sustainable production and consumption patterns of natural resources, while raising the awareness of the importance of preserving the environment and natural resources and stimulating alternatives that are necessary to rationalize and protect natural resources and improve the efficiency of agricultural waste management systems and technologies. We are also committed to improving the basic and necessary administrative infrastructure for the development of efficient protection of biodiversity. We will follow-up to join and implement international conventions related to agricultural management, and increase participation of the private and civil sector in agricultural development operational processes. To ensure achieving this vision we are committed to a set of principles and values that are summarized as follows:

Accountability and transparency: This implies that all institutional plans and programs, including objectives, outcomes and outputs, are clear and publically disseminated, particularly to the MoA, and farmers' and producers' institutions. This also entails issuing regular reports about the achievements of planned objectives, outcomes and outputs, and offering clarification in the event of failure of achieving our plans in a national systematic framework (right of access to information for all).

Equality and justice: will guide our work to ensure a decent living for all. They also entail that development is a right of all men and women, boys and girls, without any discrimination or marginalization based on sex, geographical origin, or age. Priority should always be given to the least resilient.

Active participation: Active participation ensures the involvement of female and male farmers and producers in the planning, evaluation and implementation processes of any agricultural intervention.

Sustainability: We will work so that agriculture and agricultural development is an essential requirement for the protection of the environment and the well-being, security and steadfastness of the Palestinian people, without prejudice to the rights of future generations.

National Affilliation: Our love of Palestine will be the key motivational factor to our national unity, as governmental and civil society organizations, researchers, producers and farmers.

4.2. Guiding pillars in developing the agriculture sector

Senior governmental officials at MoA have set a series of guiding pillars that should be taken into consideration during the strategic planning process. These guiding pillars essentially depend on national policy orientation of the Palestinian government, as well as based on the economic and political reality that the Palestinian agriculture sector faces. These guiding pillars form a set of high-

level rules and criteria based on which the sector analysis was undertaken. Priorities, objectives, results, policies and policy interventions have been identified.

Intensifying efforts to work in Area C and Jerusalem. Research indicates the availability of significant opportunities to invest in the agriculture sector in Area C, which is under the security control of Israel that imposes restrictions on infrastructure investment and movement, while continuously working to demolish current facilities there, such as livestock barns and farmers' tents. On the other hand, Jerusalem, including areas inside and outside the Separation Wall, its cities, villages, refugee camps and Bedouin areas, faces systematic obstacles restricting land use and farm development. These obstacles mainly entail the confiscation of Palestinian land on the expense of settlement expansion, as well as hindering implementation of any agricultural facility, such as barracks, or transferring water.

Within this context, MoA seeks, in cooperation with all stakeholders, to identify policies and programs that are in line with development priorities in Area C in general, and agricultural development priorities in particular. This is done through a series of interventions that support the capacities of livestock breeders and farmers, as well as Bedouin and rural women, to be steadfast and enhance their resilience. These efforts also seek to encourage the engagement of youth and women in agricultural works that help them secure dignified livelihoods and welfare, without leaving their villages, lands and homes. MoA also seeks to mobilize international partners and organizations to expose Israeli policies in Jerusalem and Area C.

Addressing the impact of Israeli occupation policies and measures. The continuation of Israeli occupation renders the agriculture sector, and all its components, subject to vulnerability as Israel continues to prevent farmers from reaching their lands, especially in areas adjacent to settlements and restricts access to the Jordan River and the border areas in the Gaza Strip. Furthermore, the Israeli army and settlements continue demolishing wells, burning trees and razing land. One example is Israel's systematic destruction of agricultural land, facilities and livestock farms in the Gaza Strip.

MoA hopes that its international partners, especially governments and United Nations organizations, and international and civil society organizations condemn Israel and hold it accountable in international frameworks for its ongoing land and environmental violations, looting of land and water. The Ministry hopes that the necessary financial resources are mobilized through programs and projects for agricultural development to revive what the occupation has destroyed, and contribute to Palestinians' resilience and dignity, and the sustainable use of land and water for agricultural purposes.

Facilitating access to agricultural land, water, natural resources, and markets. The Israeli occupation and its policies encourage settlement expansion and seizure of land and water, which affects the ability of farmers, entrepreneurs and investors to access land, and surface and ground water resources. These policies also affect the movement of goods outside or between governorates, especially the movement of goods from Gaza to the West Bank and from the West Bank and Gaza to Jerusalem. They also limit the direct export possibilities by controlling crossings. In addition, Israel's policies are geared towards flood the Palestinian market with Israeli products.

Strengthening the role of MoA, customs control and the General Authority for Borders and Crossings in controlling illegal smuggling of Israeli products to Palestinian markets, and reducing the entrance of production inputs, including seeds, fodder, fertilizers and pesticides that do not comply with national standards and specifications will contribute to agricultural development. Within the framework of this strategy, we seek to permanently activate the role of governmental partners and United Nations organizations to hold Israel accountable for removing restrictions and constraints on investment in the border areas in the Gaza Strip, while also exerting international pressure to increase fishing distances available to fishermen in the Gaza Strip and opening Area C to investment and development.

Promoting investment in the agriculture sector, and strengthening public-private partnerships for this purpose. Activating the tripartite partnership between the public and private sector and small

farmers and producers is in line with the high-level national consensus on the need for agricultural development and its strategic role. It stems from the conviction that investing in and developing the agriculture sector is the basis for the achievement of sustainable development and welfare of all stakeholders. Mobilizing financial resources and the private sector to establish complementary and supporting projects for farmers, particularly in the field of marketing, finance, insurance and the provision of quality production inputs, and investing in agriculture that requires high input and the development of agricultural industrialization based on local products, will contribute to strengthening the role of the agriculture sector in the GDP and boosting employment and the sustainability and profitability of small-scale farmers and producers.

Promoting innovation and adaptive solutions that mitigate the effects of climate change. The awareness of all relevant stakeholders including official and civil institutions, research centers, Unions, and agricultural councils and associations, about the importance of focusing on the ecosystem, agricultural biodiversity and desertification issues ultimately helps enhance the sustainability of agricultural systems and reduces the depletion of water sources and land degradation. This also enhances the quality of agricultural products, as well as human, plant and animal health. We expect to apply creative solutions to deal with the high salinity of soil and water in the Gaza Strip, as well as biodiversity issues related to field crops and some vegetable varieties. We aspire to allocate local solutions that will reduce the impact of erratic rainfall on pastures, agricultural production and groundwater revitalization.

Strengthening and supporting farmers' organization and small-scale farmers-oriented agricultural organizations, particularly those with clear mandates and commitment to enhance the role and position of women and youth in agriculture. Partners' commitment to good governance, partnership and transparency requires developing our approach to work with institutions that unite small farmers and producer groups, cooperatives, women's associations, and councils in order to enhance their capacities, as well as their relationship and role in sustainable development. This also aims to transform these institutions from mere recipients of grants and aid to structures that unite farmers and women around common objectives as well as act as their representatives in front of official institutions. Our interventions will enhance their national role while continuously working to ensure their protection from policies that cause their vulnerability, and improving their income generated from collective work in marketing and purchasing.

The empowerment of the sector by MoA leadership requires common consensus and partnership amongst all on the vision and sector priorities, via dialogue, knowledge exchange, transparency, and readiness for accountability to all relevant stakeholders, particularly farmers' representatives, unions and interest groups. This also requires all of us to effectively contribute to developing a forum for organizations, cooperatives, national and international groups working in the sector.

Bringing the agriculture sector to the forefront of development priorities of both the government and the donor community and providing the proper budgets and support. This will reflect positively on effectively contributing to the achievement of eight out of ten national priorities, particularly priorities related to the citizen's responsive government, effective government, economic independence, social justice, resilience and developing communities.

Strengthening contribution to and linkages with the Sustainable Development Goals (SDGs) 2030. We will fully coordinate with the Arab Organization for Sustainable Development and the National Team designated to lead and coordinate national efforts to execute the SDG 2030 action plan.

Joining the membership of international organizations, and ratifying international treaties and conventions to bolster international support for the development of the Palestinian agriculture sector. We will work in close coordination with the Ministry of Exterior and Negotiation Affairs Department at the Palestinian Liberation Organization (PLO) to join conventions and membership in international organizations for the higher interest of the Palestinian people and the agriculture sector.

4.3. 3.4. Strategic objectives

First Strategic Objective: Female and male farmers' resilience and steadfastness on their lands enhanced

Official Palestinian and relevant international institutions working to achieve sustainable development, particularly United Nations organizations, seek to dedicate all institutional measures and provide the necessary political, social and economic environment to transform agriculture to a sustainable activity that provides income and profit responding to all living requirements. This objective also aims at empowering female and male farmers in all governorates to overcome the negative effects of Israeli practices, while enforcing farmers' presence in their lands, and improving their agriculture, income and standard of living.

Strengthening the foundations of a Palestinian State is a priority to enhance the resilience of farmers and achieve sustainable agricultural development. This is of particular importance to enable State institutions to develop infrastructure in all governorates, particularly those located in Area C, and to provide services, control border crossings and promote the active participation of agriculture in conventions and events at regional and international levels. This will reflect positively on access to international protection and the defense of Palestinian rights of their natural resources. It will also enhance the sector's performance in Palestine.

The first objectives intersect with the outcomes of the four strategic objectives, and with the local government, housing, energy, water, transportation, health, social development, education, justice and communication sectors, particularly because it expects the provision of quality services for farmers and producers in all of these sectors.

Second strategic objective: Natural agricultural resources sustainably managed and better adapted to climate change

Agricultural development is primarily based on the available land and water resources, or those that can be made available, to female and male farmers and producers. This requires sound resource management practices emanating from joint efforts between institutions concerned with regulating the use of resources between farmers and producers utilizing these resources. Land and water management in the State of Palestine is dramatically affected by Israeli occupation policies, which limit access to natural resources and even steal and waste them in most cases. Official and civil society organizations seek to promote sustainable management of natural resources and reduce Israeli violations, and enhance sound practices of land and water use, while protecting resources, agricultural biodiversity, forests and pastures. Within this objective, we also seek to strengthen the relevant legislative framework. All these efforts will lead to achieving sustainable development and significantly contribute to the fulfillment of the State of Palestine's national priorities.

The second strategic objective intersects with various sectors, especially water, environment, local government, justice and international relations. Consequently, this requires that MoA act as the leader of the sector, with the aim of ensuring continuous coordination with all other stakeholders in the aforementioned sectors to reach maximum results.

Third strategic objective: Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security

Increasing agricultural production, productivity and competitiveness of both livestock and plant products will bring entrepreneurship opportunities in the agriculture sector, particularly for youth, women and businessmen. It is an essential contributor to farmers' food security at household level and national level. Enhancing production and productivity will also strengthen the contribution

of the agriculture sector in Palestinian export and GDP. It serves to increase the role of agriculture in the economic sector by enhancing employment, which is of particular importance given the high rates of unemployment. This strategic objective focuses on enhancing animal breeds, particularly sheep and goats, and developing agricultural plant varieties. It also calls for promoting practices, techniques and methods in agricultural cultivation and animal husbandry. Furthermore, it encourages the expansion of plantations and animal husbandry, while reducing the rapid rise in production input prices and increasing irrigated agriculture areas.

This strategic objective is highly interlinked with various sectors, including public funding (taxes and customs), economy (standards and specifications), water, environment and local governance (provision of services for farmers and producer).

Fourth strategic objective: Female and male farmers and entrepreneurs access to quality agricultural services needed for increasing value along agricultural value chains improved.

Achieving sustainable agricultural development requires that Palestinian official, civil society and private sector institutions, and farmers' representative frameworks, cooperatives and universities provide a range of services to support farmers and producers, particularly in terms of the provision of extension, veterinary and marketing services, as well as undertaking agriculture research, studies and education. This support also includes the provision of agricultural credit, risk protection and agricultural insurance. Farmers' abilities to access quality services covering all aspects, and enabling their creativity in agriculture is a prerequisite for the success of the strategy.

This fourth strategic objective is strongly interlinked with other key sectors and sub-sectors associated with economy, public funding, international relations, and with the work of other institutions, such as the Risk Prevention and Agricultural Insurance Fund and the Palestinian Agricultural Credit Institution.

Fifth strategic objective: Effective and efficient institutional and legal frameworks developed

Agricultural development essentially depends on the existence of strong, efficient and effective institutions - whether governmental, non-governmental, or private institutions - that arecapable of coordination among themselves to carry out their functions optimally. In addition to achieving sustainable agricultural development, this strategic objective will directly contribute to building Palestinian state institutions, as well as support other sectors and economic activities. It is critically important to strengthen joint efforts and action between institutions via real partnership, based on the results-based management approach. This will have an impact on the efficiency, effectiveness and sustainability in agriculture sector management.

The fifth strategic objective intersects with the financial and justice sectors, with international relations, the Council of Ministers and the Office of Financial Service priorities.

5. Agriculture sector policies

Institutions and frameworks involved in agricultural development are committed to a set of rules and general directions that they will abide by when developing their programs, as well as when selecting areas, target groups and partners (see table below). Furthermore, these rules guide the selection of priorities in the subsectors within the five strategic pillars. Consensus amongst all stakeholders regarding these rules (policies) will direct collective progress towards achieving the five strategic objectives, particularly in light of the broad intersections between the objectives. This common consensus will also create a unified approach between stakeholders regarding their circle of influence and relations with farmers and producers.

Pillar	Strategic objective	Policy priorities
Resilience and protection	**First Strategic Objective: Female and male farmers' resilience and steadfastness on their lands enhanced**	1. Mobilize international support to restrain Israeli violations impeding agricultural development, particularly restrictions on access to and use of natural resources, borders, infrastructure demolition and uprooting of trees. 2. Institutionalize and develop technical and financial resources dedicated to the Risk Prevention and Agricultural Insurance Fund. 3. Provide a suitable environment for agricultural production and development of youth and farmers in Area C, border areas and Jerusalem through continuous coordination with all parties to provide infrastructure services to farmers and producers in marginalized areas, as well as agricultural programs and projects for the poor, marginalized and women entrepreneurs. 4. Agricultural control on border crossings and the establishment of national reference laboratories. 5. Empowering farmers and producers to access different courts to protect and uphold their rights.
Natural resources	**Second strategic objective: Natural and agricultural resources sustainably managed and better adapted to climate change**	1. Establish large water facilities in arable irrigated areas through the transfer of water,water collection or wastewater treatment and increase the efficiency of the available water. 2. Provide the necessary support for land reclamation and agricultural road construction that link all agricultural land or lands that could be cultivated. 3. Take measures and arrangements to adapt with or avoid the negative impact of climate change and natural disasters, particularly high temperatures and fluctuating precipitation or declining rainwater. 4. Intensify efforts of research and official institutions, local authorities and centers to protect the forests and natural reserves, as well as organize and develop pastures, protect agricultural biodiversity in all environmental areas in Palestine. 5. Continue the greening of Palestine as a responsibility of all institutions, local authorities, schools and universities. 6. Protect agricultural land from urban expansion, especially in plain areas and high value agricultural lands.

Pillar	Strategic objective	Policy priorities
Production and productivity	**Third strategic objective: Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security**	1. Guiding and supporting farmers' initiatives towards intensive and semi-intensive production systems, as well as the application of modern systems of agricultural production in line with the requirements of sustainable development 2. Strengthening the role of applied research in official research centers and universities in developing extension services for both plant and livestock agriculture. 3. Improving communication between agricultural extension workers and veterinarians with respect to the transfer and dissemination of agricultural knowledge, proper agricultural planning and commitment in the agricultural calendar. 4. Development of agricultural products, for both plant and animal specifications 5. Develop initiatives and national policies to reduce cost of production inputs, especially prices of fodders, fertilizers and pesticides. 6. Preservation of rural culture that is based on the cultivation of land with trees and crops, and breeding domestic animals as part of the household component.
Supportive services	**Fourth strategic objective: Female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains improved.**	1. Finding mechanisms to ensure access of small farmers, women and youth to funding with the aim of enhancing their current farms and creating entrepreneurial agricultural businesses. 2. Empowering youth, women, farmers and entrepreneurs to access quality services in the field of agricultural business development and intensification of efforts to support entrepreneurship in the agriculture sector. 3. Highlight the role of women in agricultural work and their contribution to national output and enable them to strengthen their resources resulting from agricultural work and the Gross National Product (GNP), while empowering them to enhance their agricultural resources and income. 4. Enhancing information systems related to marketing, improving quality of products, activating control over the crossing, the promotion of national product and infrastructure development in marketing 5. Allocation of human and physical resources capable of developing agricultural research that is based on the needs of farmers and extension workers. 6. Activation of procedures that ensure public health and phythosanitary.
Institutionalization and management	**Fifth strategic objective: Effective and efficient institutional and legal frameworks developed**	1. Continuous lobbying of Palestinian decision-makers, international and United Nations organizations to allocate budgets for the agriculture sector that are coherent with the economic, social and political role of the sector. 2. Regular capacity building of all workers in the private sector, MoA, as well as agricultural councils and associations. 3. Enhancing institutional environments, including premises, equipment and transportation for MoA employees, as well as that of councils, unions and cooperatives. 4. Strengthening cooperation and exchange of knowledge between stakeholders towards achieving the strategy avoiding duplication, and developing results-based management approach. 5. Continue and update legislations governing the agriculture sector. 6. Joining conventions, international treaties and organizations that serve the National Policy Agenda and goals.

6. Strategic objectives and outcomes

MoA and its partners will be undertaking a set of policy interventions that provide a complimentary picture between stakeholders involved in agricultural development seeking to achieve the five strategic objectives (results). Coordination and complementarity between the planned results for 2022 will lead to achieving concrete changes that the strategic objectives have identified.

First strategic objective: Female and male farmers' resilience and steadfastness on their lands enhanced

1. Farmers and producers who have sustained damages as a direct result of the Israeli occupation receive the necessary support to ensure their steadfastness.
2. Farmers and producers who have sustained damages as a result of natural disasters and market crisis receive the necessary support to ensure their capacities to adapt, continue production and development.
3. International and United Nations organizations take stances that oppose Israeli occupation policies that undermine agriculture development, particularly the control of water resources, land and markets, and provide support to mitigate or reverse their impact.
4. Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities.
5. Farmers whose rights are violated by the Israeli army or settlers have access to legal recourse.

Second strategic objective: Natural and agricultural resources sustainably managed and better adapted to climate change

1. Volume of water available to farmers and livestock breeders from traditional and non-traditional sources increased and more efficiently managed.
2. Area of land cultivated or protected from degradation expanded annually.
3. Farmers across all governorates access their lands and water resources easily and freely.
4. Administrative and technical procedures that enhance the management of and protect designated agricultural lands (including forests, rangelands, and natural reserves) adopted and enforced by governmental organizations and local authorities.
5. Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced.

Third strategic objective: Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security

1. Area of land newly cultivated with/used for production of strategic and high-value crops, and livestock farms increased.
2. Agricultural production technologies, cultivars and species used by farmers and producers improved.
3. Type and safety of locally produced agricultural commodities of plant and animal origins adhere to the best international standards and are highly competitive in local and international markets.

4. Cost of agricultural production, in both plant and livestock sub-sectors, is more competitive.
5. Plant and animal diseases are controlled and their spread mitigated.
6. The business enabling environment of agricultural production, processing and marketing attracts investment and entrepreneurs.

Fourth strategic objective: Female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains improved.

1. Agricultural extension and veterinary services, research, insurance and financial services, and business development services continuously developed and expanded.
2. Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision.
3. Agricultural risk insurance tools are diversified and developed.
4. Links between knowledge produced by applied research and priorities of agriculture sector development strengthened.

Fifth strategic objective: Effective and efficient institutional and legal frameworks developed

1. Agriculture-related legislation is coherent and supports sustainable agricultural development.
2. Human and physical resources within agricultural organizations enhanced.
3. Palestine's membership in international organizations and endorsement of international treaties and conventions related to agriculture is enhanced.
4. Knowledge exchange, cooperation and partnership between organizations active in the agriculture sector enhanced, and contributes to improved results-based management and NASS implementation
5. Agriculture sector organizations adopt policies and procedures to ensure public health and safety of plants and plant production in fulfillment of market requirements.
6. Organizations and effective fora established and supported to bring together farmers and producers.

7. Linkages with the National Policy Agenda

At the beginning of the preparation process of the Palestinian National Plan, the Palestinian Council of Ministers issued a matrix of priorities and policy interventions for the years 2017-2022 as a reference framework for the planning process for all sectors included in the Palestinian Development Plan 2017-2022, which is the highest policy document stating the vision and priorities of the Palestinian national policies.

The matrix includes national priorities and policy interventions for the years 2017-2022 in three pillars. The first pillar is the road towards independence, whereas the second is reform and improving the quality of public services, and sustainable development is the third one. Each pillar includes national priorities and policy priorities with underlying policy interventions. NASS (2017-2022) intersects with most policy priorities, due to the social, economic and political dimensions of the Palestinian agriculture resulting from the importance of land and water in the national struggle, and in maintaining human security and stability of people's livelihood and food security. More specifically, NASS (2017-2022) contributes directly to achieving the following policy priorities.

National priority	Relevant strategic interventions according to the priority and policy intervention matrix	Relation with the Resilience and Sustainable Development Strategy
Achieving an independent state through mobilizing national and international efforts to end the occupation	1. Reassert sovereignty over the whole territory of the State of Palestine based on the 1967 borders, including East Jerusalem, and over national resources and air and sea borders, as well as lay the legal foundations for this sovereignty.	Out of its five strategic objectives, the first (Farmers' resilience and steadfastness on their lands enhanced) and the second objectives (Natural resources (land and water) sustainably managed and better adapted to climate change) are interlinked with the protection of natural resources. The Strategy has also included several policies and interventions that will provide a range of projects and programs for the protection of land and water in Area C, as well as provide legal support and awareness for farmers and producers, who are threatened, while compensating them and developing their resources to ensure continuity in their work and production. Furthermore, a series of activities, including advocacy campaigns, were designed to hold Israel accountable and highlight its violations that undermine agricultural development and threaten the livelihoods of farmers.
National Unity	2. Update and consolidate the legal and legislative system in accordance with international obligations of the State of Palestine, as well as develop democratic and periodic elections at all levels.	In its fifth objective, the Strategy has determined two results related to the updating and unification of the legal and legislative system in accordance with international obligations of the State of Palestine. These are: 1. Agricultural legislation is comprehensive and enhances sustainable agricultural development. 2. Joining international conventions and organizations related to agriculture and supporting the Palestinian presence in international agricultural organizations.

National priority	Relevant strategic interventions according to the priority and policy intervention matrix	Relation with the Resilience and Sustainable Development Strategy
Strengthening Palestine's International Status	3. Actively participate in international forums and gradually seek accession to additional international conventions and organizations, and develop bilateral relations with the State of Palestine.	Under the fifth strategic objective, policy number six (joining international conventions, treaties and organizations that serve the national policy agenda and achieve national goals) determined two standards to provide recommendations for joining international organizations and conventions. These standards entail the degree of serving the National Policy Agenda and contributing to joining organizations to achieve national goals, particularly in agriculture. In cooperation with United Nations and civil society organizations, the Ministry of Exterior and the Palestinian Ministry of Agriculture will undertake a feasibility study about joining international conventions and organizations, before submitting its recommendations.
Citizen-Centered Government	4. Develop and implement a government-wide service improvement strategy, with particular focus on "Area C" and East Jerusalem, in cooperation with our delivery partners. 5. Strengthen service delivery in partnerships with the private sector and civil society. 6. Establish a comprehensive approach to land administration that optimizes land use, completes land registration and efficiently manages state lands.	Under the first strategic objective, the third result (Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities" focuses on enhancing entrepreneurship in businesses in Area C, Jerusalem and Gaza. The strategy also calls for compensating damages occurring to services and providing legal support. Furthermore, the strategy's first guiding pillar determined that focus on Area C and East Jerusalem is a key prerequisite for the success of agricultural development programs. Under the fifth strategic objective, the fourth result focuses on enhancing "knowledge exchange, cooperation and partnership between organizations active in the agriculture sector, and contribute[ing] to improved results-based management and NASS implementation". The strategy also identified a group of interventions and results under the first, second and third strategic objectives that focus on improving the management of natural resources, especially land and water, whether through protecting or developing them and allocating interventions and specific projects, including reserves, parks and communal land.

National priority	Relevant strategic interventions according to the priority and policy intervention matrix	Relation with the Resilience and Sustainable Development Strategy
Effective Government	7. Promote effective human resources management and development. 8. Institutionalize gender mainstreaming in policy-making, planning and budgeting. 9. Reform and restructure Palestine's public institutions to increase efficiency and improve service quality.	Under the fifth strategic objective, interventions have been identified within the second result and focus on enhancing the capacity of ministry staff and organizations affiliated to the Ministry. One of the guiding pillars of the strategy focuses on "enhancing the role of agricultural institutions, particularly famers' organizations, as well as improving the role of women and youth in agriculture and rural development". The fourth result under the first strategic objective and the sixth result under the third strategic objective targets entrepreneurs and farmers, while results under the fifth strategic objective focuses on reforming the MoA and enhancing its services, with particular attention to legislative frameworks of agricultural institutions and developing active forums for farmers and producers.
Independence of the Palestinian economy	10. Rebuild Palestine's productive sectors, focusing on manufacturing, agriculture, tourism and restoring Gaza's industrial base. 11. Attract domestic and foreign direct investment, focusing on construction, tourism, agriculture, and ICT sectors. 12. Expand international trade and exports. 13. Adopt measures speeding up the launch of pilot entrepreneurship projects for graduates 14. Support and develop cooperatives 15. Support business start-ups, as well as medium and small microfinance enterprises.	The third strategic objective dedicated six results and interventions that are related to this area. Furthermore, the four strategic objectives intersect with enhancing production and productivity, particularly natural resource management, promoting farmers' resilience and enhancing services. The fourth result under the first strategic objective "Innovative youth, female farmers and producers are engaged in sustainable and feasible agricultural and rural activities". Under the fourth strategic objective, the second outcome under the fourth strategic objective has interventions related to improving exports "Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision." Also, under the first strategic objective, the third result states "Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities". Under the fifth strategic objective, the sixth result states "organizations and effective fora established and supported to bring together farmers and producers, including cooperatives". All interventions identified in this strategy work to encourage investment in the agriculture sector, whether through supporting small farmers, or cooperatives, or facilitating the mission of the private sector to establish companies dedicated to the provision of agricultural inputs or exports.

National priority	Relevant strategic interventions according to the priority and policy intervention matrix	Relation with the Resilience and Sustainable Development Strategy
Social Justice and Rule of Law	16. Strengthen economic and social empowerment programs benefiting vulnerable groups and the poor. 17. Remove barriers that prevent the full participation of women in community and economic development and public life. 18. Empower and equip Palestine's youth to participate meaningfully in public life and state building, with focus on the underprivileged youth.	The fourth result under the first strategic objective "Innovative youth, female farmers and producers are engaged in sustainable and feasible agricultural and rural activities". One of the guiding pillars of the strategy focuses on "enhancing the role of agricultural institutions, particularly famers' organizations, as well as improving the role of women and youth in agriculture and rural development". Furthermore, a group of interventions targets entrepreneurs and farmers (third result under the first strategic objective and the sixth result under the third strategic objective). Interventions to achieve result 4 under the first strategic objective are also related to these national priorities.
Resilience society and able to develop	19. Strengthen capacity for disaster response and crisis management. 20. Ensure food security. 21. Manage, protect and promote sustainable use and conservation of natural resources (land, water and energy). 22. Keep Palestine green (conserve biodiversity, establish nature preserves and expand green spaces).	The first strategic objective allocated results and interventions to enhance resilience of farmers and their bond with their lands, and promotes their protection. Five strategic objectives and their underlying results and interventions intersect with enhancing food security through the provision of agricultural products, income and employment of youth and farmers. The fifth result under the second strategic objective "Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced" is related. Allocated first strategic objective set of results and interventions to enhance the steadfastness and adherence to the land and to protect farmers.

8. Linkages with the Sustainable Development Goals

"On January 1, 2016, the 17 sustainable development goals of the 2030 Agenda for Sustainable Development officially come into force as the world leaders adopted these in September 2015 in a historic United Nations summit. Countries will work during the fifteen years to mobilize efforts to eradicate poverty in all its forms, fight against inequality and solve climate change, while ensuring the inclusion of all in these efforts. Despite the fact that sustainable development objectives are not legally binding, it is expected that governments take ownership and develop national frameworks to achieve them. Therefore, states have the primary responsibility for the follow-up of progress and review, which requires the collection of quality data - easily accessible - in a timely manner. The follow-up and review at regional level should be based on the analysis at national level while contributing to the follow-up and review at the global level."[13]

The National Agriculture Sector Strategy is strongly linked with nine of the 17 sustainable development goals, and with 38 of its 169 targets. More specifically, the Palestinian Ministry of Agriculture and the Food and Agriculture Organization of the United Nations will be responsible for nationalizing targets within the second sustainable development goal (Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture). Over the next six years, NASS will seek to nationalize these targets through the following:

Target	Relation with the "Resilience and Sustainable Development Strategy"
1. By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	The third strategic goal six specific outcomes that directly aim at enhancing food security. It also includes two results that call for the protection of farmers and producers against natural disasters, markets crises and Israeli occupation practices by providing the necessary support and increasing their ability to adapt and continue their work.
2. By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	Results under the third strategic objective are directly linked to increasing productivity: 1. Agricultural production technologies, cultivars and dynasties used by farmers and producers improved. 2. Cost of agricultural production, in both plant and livestock sub-sectors, is more competitive. 3. Plant and animal diseases are controlled and their spread mitigated.

13 http://www.un.org/sustainabledevelopment/ar/sustainable-development-goals

Target	Relation with the "Resilience and Sustainable Development Strategy"
3. By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters that progressively improve land and soil quality	Within the second and third strategic objectives, a set of results were identified that ensure enhancing productivity and sustainability, as well as promoting capacities to adapt to climate change. These are: 1. Area of land newly cultivated with/used for production of strategic and high-value crops, and livestock farms increased. 2. Area of land cultivated or protected from degradation expanded annually. 3. Volume of water available to farmers and livestock breeders from traditional and non-traditional sources increased and more efficiently managed. 4. The business enabling environment of agricultural production, processing and marketing attracts investment and entrepreneurs.
4. By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	Under the second strategic objective, two results work directly to preserve generic diversity of seeds, cultivated plans and domesticated animals. These are: 1. Administrative and technical procedures that enhance the management of and protect designated agricultural lands (including forests, rangelands, and natural reserves) adopted and enforced by governmental organizations and local authorities. 2. Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced.
3. Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	The strategy seeks to provide an enabling environment for youth and investors to work and invest in the agriculture sector. More than one result within the first, fourth and fifth strategic objectives were dedicated to enhancing investment.
4. Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	The fifth strategic objective (Effective and efficient institutional and legal frameworks developed) aims at ensuring a comprehensive institutional and legislative environment that is in line with international conventions and treaties. More specifically, the following results were determined: 1. Agriculture-related legislations are coherent and support sustainable agricultural development. 2. Palestine membership in international organizations and endorsement of international treaties and conventions related to agriculture is enhanced.
5. Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	A set of results were dedicated to promoting market and product safety. These are: 1. Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision. 2. Type and safety of locally produced agricultural commodities of plant and animal origins adhere to the best international standards and are highly competitive in local and international markets. 3. Organizations and effective fora established and supported to bring together farmers and producers.

9. Program policy statement

MoA has identified its role and contribution in achieving the sectoral strategic objectives and results during the first period of the medium-term budget of 2017-2019, through three main programs. The first program is the Agricultural Development Program that directly contributes to achieving the second and third strategic objective. The second program Enhancing Agricultural Services Program contributes to achieving the first and fourth strategic objectives, whereas the third Administrative Program contributes mainly to achieving the fifth strategic objective.

9.1. Outputs of the first Program Policy Statement (Agricultural Development)

Program goals

1. Sustainable management of agricultural natural resources that is adaptive to climate change
2. Increased agricultural production, productivity, and competitiveness in local and international markets, along with their contribution in gross domestic product and food security

Objectives and outputs

1.1. Volume of water available to farmers and livestock breeders from traditional and non-traditional sources increased and more efficiently managed.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (300) Licenses for the use of treated waste water 2. (18) workshops or training sessions around agricultural water and irrigation 3. (6) studies and architectural designs for water facilities. 4. (6) feasibility studies for water facilities. 5. (60) licensing files for underground agricultural wells. 6. (1500) examination and analysis of water quality. 7. (30) organizations using licensed water.	1. (1693)water wells constructed. 2. (55) agricultural pools and tanks constructed. 3. 76000) meters (of water transmission and distribution systems, as well as water treatment systems constructed. 4. (5) treated water collection and storage tanks constructed. 5. 2900) meters (of water networks for treated waste water provided to farmers 6. (3) irrigation canals created

1.2. Area of land cultivated or protected from degradation expanded annually.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (32) awareness raising workshops and courses organized for farmers in agricultural land management. 2. (3) training courses organized for engineers in agricultural land management. 3. (150) architectural designs prepared for agricultural land projects. 4. Sustainable Use of Agricultural Land Strategy developed. 5. (6) draft legislations and procedure manuals in the field of agricultural land management, soil fertility and use of fertilizers.	1. (13000) dunums of lands rehabilitated and reclaimed. 2. (350000) of retaining walls built. 3. (4 million) seedlings of fruit trees have been planted. 4. (90) dunums of salinized land in greenhouses have been rehabilitated. 5. (45) dunums of Palm trees were planted. 6. (6) training courses implemented in the field of agricultural land rehabilitation and its evaluation andin use of fertilizers and soil fertility.

1.3. Farmers across all governorates access their lands and water resources easily and freely.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (7) machines maintained and operated for opening agricultural roads. 2. (3) hammers provided to open agricultural roads.	1. (114) agricultural roads of 6 meters width opened and spread with needed materials. 2. (150) agricultural roads of 6 meters width expanded. 1. Materials supplied for (90) agricultural roads. 2. (2550) retaining walls were built to protect roads. 3. (2700) meters of side channels constructed. 4. (72) concrete culverts installed. 5. (7) machines to open agricultural roads are maintained and operated. 6. (3) hammers to work on agricultural road openings purchased.

1.4. Organizational and technical procedures that enhance the management of agricultural lands (including forests, rangelands, and natural reserves) adopted and enforced by governmental organizations and local authorities.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Issue and update three maps for natural resources and agricultural production. 2. Database of land and water was operated. 3. (4500) trees planted in the State's forests. 4. Guarding and forest management 5. (15) licenses issued for logging and grazing in forests. 6. (52) licenses for parks in forests were issued. 7. (7) forest nurseries managed and operated. 8. Rangeland development farms. 9. (3) grazing reserves created 10. (3) national parks created 11. (17) natural reserves are managed 12. (2) legislations to protect wildlife and reserves 13. Rare plant breeding introduced	1. Map of soil classification in Jericho. 2. Land suitability map on a scale of 1/10000. 3. Land use map for the study area, on a scale of 1/10000. 4. Soil salinity map on a scale of 1/10000. 5. (3000) dunums grazing reserves. 6. (1330 dunums) rehabilitated, cultivated and managed lands. 7. (million) pastoral and forest seedlings produced and distributed. 8. (5) forest nurseries have been rehabilitated.

1.5. Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (15) monitoring report on weather information and rain. 2. (6) periodic reports on early warning in relation to weather and climate change. 3. (3) desertification monitoring reports. 4. Annual report on the status of plant and animal biodiversity. 5. (150) genetic origins have been preserved.	1. (6) awareness raising and guidance material on the impact of climate change on the agriculture sector. 2. (15) workshops on confronting climate change. National parks set up on a space of 1500 dunums. 3. Botanical garden on an area of 100 dunums established. 4. Environmental extension center established. Produce 15000 seedlings for the protection of agricultural biodiversity. 5. Seed conservation and extraction units established.

2.1. Agricultural production technologies, cultivars and dynasties used by farmers and producers improved.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (72000) sheep and cattle artificaily inseminated 2. (670) of high-quality male and female cattle selected. 3. national numbering of cattle. 4. (11800) extension visit for farmers and breeders. 5. (753) field days organized for farmers and breeders. 6. (598) agricultural demonstrations organized. 7. (493) training courses organized for farmers. 8. (1515) extension materials prepared and released. 9. (22) television and radio instructional sessions organized. 10. Website for extension created and managed 11. (97) agricultural extension messages via mobile phones are broadcasted 12. (130) experiments applied. 13. (2) Applied research and studies in plant protection conducted 14. (3) studies and reports on the management of water resources in the Jordan Valley area 15. Selection of a 50 dunums salinized soil area to be rehabilitated as a pilot location with an installed drainage network.	1. (90) farmers trained in soil fertility. 2. (60) Fertilization programs set up. 3. (42) Fertilization demonstrations performed. 4. (210) field days for olive rejuvenation organized. 5. Media campaign organized about olive rejuvenation in 70 locations. 6. (1050) farmers trained in olives pruning 7. (200) farms trained in various agricultural fields. 8. (15) agricultural demonstrations 9. (15) Agricultural bulletins prepared and disseminated. 10. (30) livestock demonstations carried out. 11. Sheep and cows inseminated from improved males 12. (20) improved goats ram distributed to breeders 13. (15) Livestock publications released. 14. (45) Livestock workshops held. 15. (50) Experimental models for field crop varieties in stations. 16. Breeding units established for (20) categories of field crops . 17. (50) Practical models established in farmers' fields for field crop varieties. 18. (50) Technical packages were provided for farmers. 19. Improved wheat and barley crops produced and distributed to farmers.

2.2. Type and safety of locally produced agricultural commodities of plant and animal origins adhere to the best international standards and are highly competitive in local and international markets.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (36) reports about the safety of agricultural facilities and exported products. 2. ( ) report on food safety of animal origin. 3. (15) experiments related to the quality of agricultural products and applied techniques in water harvesting have been implemented. 4. (12) proposals for relevant specifications and standards in agricultural products and processed products were submitted for approval. 5. (84) community awareness campaigns for livestock breeders and consumers. 6. (37000) certificates and veterinary reports issued.	

2.3. Cost of agricultural production, in both plant and livestock sub-sectors, is more competitive.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (600) technical approvals for fertilizers licensing. 2. (300) fertilizer samples tested and analyzed. 3. (12) reports prepared about the quality of fertilizers in the market. 4. Monitoring report on veterinary medicines. 5. Technical permissions released to import plants, plant products and pesticides.	1. (10) agricultural wells connected to electricity. 2. Local fish feed production line built. 3. (50) Observations conducted in relation to silage, compost, new feed items and alternative feed.

2.4. Plant and animal diseases are controlled and their spread mitigated.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Animal and animal product quarantine. 2. Veterinary vaccines and immunization products supplied. 3. (1350) reports prepared monitoring animal diseases and common disease between humans and animals. 4. (112000) laboratory tests on animals and their products. 5. (6) spraying campaigns against pests. 6. Annual tests conducted in seedling nurseries. 7. Agricultural pests are monitored periodically and urgently.	1. Phytosanitary center established and equipped with all supplies

9.2. Outputs of the Second Program Policy Statement (Enhancing Agricultural Services)

Program goals

3. Farmers resilience and steadfastness enhanced.

4. Access of farmers and entrepreneurs to quality agricultural services that respond to the needs of the agriculture sector value chain

Objectives and outputs

3.1. Farmers and producers who have sustained damages as a direct result of the Israeli occupation receive the necessary support to ensure their steadfastness.

3.2. Farmers whose rights are violated by the Israeli army or settlers have access to legal recourse.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (156) reports prepared to monitor and document agricultural damages. 2. (1543) of farmers, who were affected by Israeli violations are provided with the necessary support.	

3.3. Farmers and producers who have sustained damages as a result of natural disasters and market crisis receive the necessary support to ensure their capacities to adapt, continue production and development.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Reports to monitor and document damages occurring from natural disasters	1. (5000) tons of feed were distributed to breeders.

3.4. Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Laboratory services available to farmers, investors and youth entrepreneurs. 2. (11) socio-economic studies available. 3. (3) studies on investment opportunities in the agriculture sector. 4. 150 experimental models for technology transfer. 5. Technical consultations provided to farmers, investors and institutions. 6. Workshops for investment institutions, agricultural associations and farmers organized. 7. A website created about prospects for investment in the agriculture sector. 8. (6) regional and international conferences to encourage and attract investment. 9. (8) feasibility studies for various agricultural sub-sectors. 10. (3) reports on national priorities for investment in the agriculture sector. 11. Network and relationships with institutional partners in investment.	1. 1000)) sheep were distributed to small farmers and women. 2. (90) dunums of greenhouses have been built. 3. (80) fish ponds were built. 4. (18) home and business aquaponic units were built. 5. (4) ornamental fish production units created. 6. grants for the establishment and development of agricultural projects were provided.

4.1. Agricultural extension and veterinary services, research, insurance and financial services, as well as business development services continuously developed and expanded.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. An annual guide on pesticides released. 2. Continuing education for (150) veterinarians, technicians and breeders. 3. (30) service managers and agricultural inspectors trained technically and administratively.	1. Agricultural extension officers trained in using salt resistant fodder. 2. (20) Staff trained on land and soil management. 3. (90) Agricultural extensionists trained. 4. (150) veterinarians and technicians trained. 5. (30) Agricultural extension officers trained in fish production. 6. (164) agricultural extension officers trained. 7. Laboratory for bio-agricultural production to control agricultural pests. 8. Station for safe disposal of confiscated and expired pesticides established. 9. Tools and equipment for test stations available. 10. (20) agricultural research staff trained. 11. Seed production system established in Palestine. 12. (45) extension officer trained in field crops and seed production. 13. (2) Mobile Veterinary Clinic equipped. 14. (15) supplies provided to veterinary laboratories. 15. An equipped veterinary laboratory building.

4.2. Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (2700) import permits and licenses released for agricultural products, production inputs and machines. 2. (36) monthly reports published about the local market, exports and imports. 3. (12) studies published about markets for agricultural products or processed agricultural food. 4. (10) reports published about the central markets. 5. Central market system is developed 6. (72) marketing extension visits have been organized. 7. (30) Festival organized for agricultural commodities. 8. (7) trade agreements for agricultural products signed with business partners.	1. Fish packaging and Marketing Center established. 2. (7200) internationally recognized Phytosanitary certificates (in print and electronic). 3. 20 exhibitions and festivals organized for Palestinian products. 4. Palestinian agricultural products are available in (45) international festivals and exhibitions. 5. (3) technical studies released on marketing. 6. (730000) packages distributed. 7. (3) courses organized on marketing. 8. Contracts to export 4500 tons of olive oil, 2400 tons of grapes and 4500 tons of other fruits.

9.3. Outputs of the third Program Policy Statement (Administrative Program)

Program goals

5. The agriculture sector has efficient and effective agricultural organizational frameworks and legal environment.

Objectives and outputs

5.1. Agriculture-related legislations are coherent and support sustainable agricultural development.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (12) draft agricultural legislations submitted to relevant authorities. 2. (135) legal opinion provided about cases and litigations and followed by the prosecution. 3. (35) investigations and legal memorandums prepared about all financial and administrative cases. 4. (60) agreements and contracts prepared. 5. (3) by-laws related to the management of the agricultural water sector. 6. (3000) field reports to follow up agricultural products and their compliance with national regulations and systems. 7. Electronic agricultural monitoring report implemented. 8. A manual prepared and disseminated about combating settlement products.	

5.2.Human and physical resources within agricultural organizations enhanced.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Employees' files and reports prepared and archived (monthly attendance, monthly leave reports, employees' transactions, End of service transactions). 2. New employees are appointed as per the procurement rules and regulations. 3. Supply and procurement operations are done according to Procurement Law and regulations. 4. Auction sales are done according to regulations and are archived. 5. Programs and projects financial reports are prepared. 6. Functional governmental vehicles. 7. Capital and consumption needs of the Ministry are prepared. 8. Financial and administrative auditing on 6 general directorates. 9. Equipment and tools for land management are available.	1. (4) operational procedures for land rehabilitation have been developed. 2. Equipment and tools necessary to categorize and assess soil and fertilizer are available 3. Building and equipping new headquarter for agricultural directorates in 12 governorates.

5.3. Palestine membership in international organizations and endorsement of international treaties and conventions related to agriculture is enhanced.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (21) agricultural cooperation agreements and action plan to enforce international cooperation have been adopted. **2.** Regular relations with Arab League, Islamic Conference and United Nations organizations have been established. **3.** (8) detailed reports about joining international organizations and conventions have been prepared.	

5.4. Knowledge exchange, cooperation and partnership between organizations active in the agriculture sector enhanced, and contributes to improved results-based management and NASS implementation

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (3) sub-sector strategies have been prepared and developed based on the "Resilience and Sustainable Development Strategy". 2. Annual plan and budget for the Ministry's programs prepared and updated. 3. Annual action plan for the ministry updated annually. 4. Monitoring and Evaluation system for the sector's results, budget programs and projects prepared and implemented. 5. Reports on national agricultural statistics updated annually. 6. Regular reports on agricultural projects prepared. 7. Regular meetings for the sector groups.	1. Disease control and capacity building strategy were developed.

5.5. Agriculture sector organizations adopt policies and procedures to ensure public health and safety of plants and plant production in fulfillment of market requirements.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (7) proposals for legislations related to animal's health. 2. Two proposals for legislations and policies related to phytosanitary submitted to designated authorities. 3. Facilities involved in animal husbandry and veterinary profession licensed. 4. (12) studies about animal's health and their products have been prepared. 5. Veterinary reports provided to local and international stakeholders. 6. (655) licenses provided for nurseries, seedlings and pesticide shops. 7. (3500) Phytosanitary certificates issued. 8. Phytosanitary database created. 9. Animal health and products database created. 10. (2250) regular report on testing of agricultural products' quality.	1. Phytosanitary center established and equipped with all needed supplies. 2. A comprehensive database covering all plant protection services, issues and agricultural quarantine. 3. A database and information management of veterinary services and animal's health established and training conducted. 4. (7200) internationally recognized phytosanitary certificates (in print and electronically) issued. 5. Implementing the National Animal Recording and Identification program.

5.6. Organizations and effective fora established and supported to bring together farmers and producers.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Status of 45 inactive agricultural cooperatives were reformed 2. Status of ( ) NGOs were reformed. 3. (10) agricultural councils activated. 4. (10) internal by-laws for agricultural councils wereendorsed.	1. Farmers organized in (36) groups and associations.

10. Action plan

This section presents initiatives to be undertaken by the Ministry of Agriculture within the framework of the national plan for the agriculture sector. It also presents initiatives that the Palestinian Council of Ministers need to adopt or revise, such as the draft laws, regulations, strategy papers and sub-sector strategies, or accession to international conventions and institutions. This will enable the Palestinian Council of Ministers to plan any work needed to support the implementation of this strategy in advance.

Document Type	Brief description	Name of Initiative
Report on the accession to international organization	A document that measures the effects of joining membership in the Food and Agriculture Organization of the United Nations, including advantages, benefits and responsibilities. The document needs approval from the Palestinian Council of Ministersand completion of required procedures.	Joining FAO membership
Report on the accession to international organization	A document that measures the effects of joining membership of the International Fund for Agricultural Development. The document needs the approval of the Palestinian Council of Ministers and the completion of required procedures.	Joining IFAD's membership
Measuring organizational impact document	A document that measures the organizational effects for joining the Sanitary and Phytosanitary agreement. This requires procedures from the Palestinian government, including modification of some local legislations and technical procedures.	Joining Sanitary and Phytosanitary (SPS) agreement
Draft law	Draft law to amend certain provisions of the Agricultural Law Number 2 of 2003 and its amendments of 2005	Revision of the Agricultural Law
Draft law	It has been submitted to the Palestinian Council of Ministers and will continue its approval and modification, based on comments submitted on the draft law.	Follow up the endorsement of the Agricultural Councils Law
Draft regulation	A draft regulation for management of livestock markets in the Palestinian territories to ensure efficiency and animal health.	Regulation for Cattle and Poultry Markets
Draft law	Draft law for the phytosanitary law in Palestine.	Phytosanitary law
Draft law	Draft law for animal's health in Palestine.	Animal health law
Draft regulation	Draft regulation for the use of chemical and organic agricultural fertilizers, to ensure quality, sustainability in the use of soil and land resources in agricultural production.	Agricultural fertilizer regulations
Draft regulation	Draft regulation for the management of genetic resources and biotechnology.	Follow up on the preparation of Genetic resources and biotechnology management regulation
Draft regulation	Draft regulation for biosafety, to ensure public health, and adherence to sound foundations in agricultural production.	The Biosafety regulation
Draft regulation	Draft regulation for the management of slaughterhouses in Palestine, to ensure the protection of local producer and public health.	Slaughterhouses regulation
Draft regulation	Draft regulation for the management of poultry farms, to ensure efficiency of the production process, protection of farmers from natural disasters and risks, as well as the protection of local agricultural products.	The poultry farming regulation

11. Management plan

11.1. Sector's organizational arrangements

During the development of the program policy statement, the sectoral results and policy interventions, the Planning and Budget Management Group along with partners gave special attention to develop implementation arrangements to ensure the achievement of the desired results and eliminate dispersion of relevant institutions' efforts, particularly civil society and private sector institutions operating in Palestine. More specifically, the Planning and Budget and the National Team will work in a complimentary manner to activate and develop mechanisms that ensure access to efficiency, effectiveness and impact of all governmental interventions, particularly that of the Ministry of Agriculture, and all other interventions implemented by the civil society and the private sector. The most important of these arrangements include the following:

1. **Enhancing effectiveness of agriculture sector working group,** whose membership includes Palestinian and international institutions, as well as donors. The Ministry of Agriculture and Spain share the presidency of the Group. The agriculture sector working group will continue to carry out its role in coordinating development efforts in the agriculture sector. This entails coordinating interventions that contribute to implementing this strategy that are carried out by various development partners and institutions working in the agriculture sector. Within this context, the agriculture sector working group will play a pivotal role in promoting the exchange of information and coordination mechanisms between donors and the Palestinian Authority on planned projects and programs, as well as in monitoring resources needed to achieve the objectives of the agriculture sector strategy. More specifically, the agriculture sector working group will give paramount importance during the next six years to the following implementation arrangements:

    - Assisting donors in coordination aid for the agriculture sector strategy;
    - Coordination and harmonization of donor assistance to prevent duplication and ensure the implementation of projects in accordance with priorities set out in the agriculture sector strategy.
    - Provide source of information for the needs and achievements, donor funding and gaps in the agriculture sector;
    - Effective contribution in collecting results of projects and programs implemented by local, foreign and international institutions in the sector, in order to contribute in monitoring progress towards the sector's strategic objectives achievement.

    The agriculture sector working group will continue presenting its reports regularly to the economy strategy group, while gradually working to increase the coherence between these reports and the agriculture sector strategy. By the end of 2018, these reports will reflect progress in the implementation of the agriculture sector strategy in accordance with the objectives set by, and will direct support to the agriculture sector.

2. **Activating the role of the national team (sectoral strategy group) in coordination between governmental and civil society organizations and the private sector** through semi-annual meetings to review the strategy based on reports provided by the monitoring and evaluation system, in which civil society and relevant institutions will also contribute. The current structure of the national team enables coordination management, which will enable agriculture sector institutions in adopting a complementary approach and policies towards achieving the vision.

11.2. Arrangements specific to the Ministry of Agriculture

3. **Activate the role of Planning and Budget Management Group in monitoring and evaluation:** The Ministry of Agriculture will work to expand the Planning and Budget Management Group to include the top management at the ministry. The Group will be assigned to ensure the integration and harmony between the outputs of the three program outputs, as well as take decisions to modify programs if necessary. The Group will meet at the beginning of each month in order to exchange experiences about the ministry's activities and every six months to present and discuss the semi-annual reports and plans.

4. **Review program design:** The General Department of Planning and Policy will organize a series of activities to review the results framework (output, goals, objectives) of the three programs based on the overall functions, activities and services carried out by the Ministry of Agriculture, as well as lessons learned and governorate priorities. During the review process, the General Department of Planning and Policy will involve representatives from the departments of agriculture and public administrations, experts and those interested in the scope of work of each program. The review process also entails developing key performance indicators, the M&E matrix for each program and the implementation arrangements.

5. **Complete the M&E system: The** General Department of Planning and Policy will work on monitoring and evaluation of the Ministry's three programs with the participation of all the respective personnel from the Ministry, as well as relevant governmental institutions. The review process will include the development of data collection tools, as well as ensuring the availability of staff expertise and motivation to collect and analyze data, in a highly professional and objective manner.

6. **Develop annual plans for programs:** The Ministry of Agriculture will develop an annual work plan for each and every Directorate, and General Administration based on the outputs and functions of programs. The General Department of Planning and Policy will be responsible for assembling all plans and issuing the ministry's annual work plan.

7. **Compatibility of sub-sector strategies and development of new sub-sector plans:** The Ministry of Agriculture with the participation of all concerned stakeholders from every sub-sector will review the sub-sector strategies to ensure compatibility with the "Resilience and Sustainable Development Strategy" in terms of objectives, priorities, interventions and timeframe. The Ministry will start reviewing the extension services strategy, the agricultural research strategy and the animal production strategy.

11.3. Performance indicators

The Planning and Budget Management team has adopted an initial set of key performance indicators for the agriculture sector, in order to measure the progress made in the sector. These indicators will be reviewed and developed when preparing the Ministry's work plan and M&E system (see M&E matrix).

Results	Indicators
First strategic objective: Female and male farmers' resilience and steadfastness on their lands enhanced	1. Percentage increase in the number of work opportunities in the agriculture sector. 2. Percentage increase in the number of households that consider agriculture its main source of income. 3. Percentage increase in the agricultural activities, events, initiatives and projects that are referred to by committees, organizations and local government units in Area C, as well as in isolated areas in Gaza and Jerusalem.
1.1. Farmers and producers who have sustained damages as a direct result of the Israeli occupation receive the necessary support to ensure their steadfastness.	4. The percentage of compensations earned by farmers out of the total estimated damages resulting from Israeli practices
1.2. Farmers and producers who have sustained damages as a result of natural disasters and market crisis receive the necessary support to ensure their capacities to adapt, continue production and development.	5. The percentage of compensation earned by farmers out of the total estimated damages resulting from natural disasters and economic crisis
1.3. International and United Nations organizations take stances that oppose Israeli occupation policies that undermine agricultural development, particularly the control of water resources, land and markets, and provide support to mitigate or reverse their impact.	6. Number of decisions and stances issued by United Nations organizations or officials or foreign ministries or governments that denounce or condemn Israeli control of natural resources, settlements and movement restrictions of crossings.
1.4. Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities.	7. Number of youth and women that have initiated projects in agricultural production, marketing or manufacturing industries. 8. Number of investment projects initiated in marketing or manufacturing, or provision of production inputs.
1.5. Farmers whose rights are violated by Israeli army or settlers have access to legal recourse.	9. Number of cases filed in Israeli or international courts addressing Israel's violations in the agriculture sector.
Second strategic objective: Natural and agricultural resources sustainably managed and better adapted to climate change	10. Percentage increase of land areas harvested in crops and trees. 11. Increased space of forests, grasslands and natural reserves. 12. Percentage increase in irrigated agricultural land.

Results	Indicators
1.1. Volume of water available to farmers and livestock breeders from traditional and non-traditional sources increased and more efficiently managed.	13. Additional amount of water in cubic meters that is made available annually for agricultural purposes, aggregated by region and source
1.2. Area of land cultivated or protected from degradation expanded annually.	14. Reclaimed or rehabilitated land areas that became suitable for agricultural use. 15. Agricultural land area that have been planted after rehabilitation and reclamation.
1.3. Farmers across all governorates access their lands and water resources easily and freely.	16. Total length of agricultural roads that have been constructed and rehabilitated. 17. Total land area that has become connected by agricultural roads.
1.4. Administrative and technical procedures that enhance the management of and protect designated agricultural lands (including forests, rangelands, and natural reserves) adopted and enforced by governmental organizations and local authorities.	18. Number of local government units that started supervising or developing or protecting or taking concrete actions to protect or develop agricultural lands or forests, grasslands and natural reserves. 19. Number of decisions - related to the development or protection of land, forests and natural reserves - taken and implemented by relevant organizations working in land and water in the State of Palestine.
1.5. Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced.	20. The number of new measures that have been taken by farmers and institutions concerned to maintain the biodiversity, forests and adaptation to climate change 21. Periodic reports on the monitoring of agricultural desertification and biodiversity and that refers to halting the deterioration in agricultural desertification and biodiversity 22. The number of decisions that have been taken as a result of the early warning reports in climate and climate change.
Third strategic objective: Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security	23. Percentage increase in agricultural production value at constant prices, by at least 10% by the end of 2022, in comparison with 2014. 24. Percentage increase in the value-added of the agriculture sector, by at least 15% in 2022 compared to 2014. 25. Percentage increase in the value of agricultural exports in 2022 of not less than 20% 26. Percentage decrease in the value of imports of agricultural commodities. 27. Percentage increase in sheep milk and live births productivity. 28. The mortality rate of newborns and animals. 29. Number of epidemics that infect animals
1.1. Area of land newly cultivated with/used for production of strategic and high-value crops, and livestock farms increased.	30. Percentage increase in the numbers of livestock, fish and beehives. 31. Percentage increase in areas of fruits, and field and export crops

Results	Indicators
1.2. Agricultural production technologies, cultivars and dynasties used by farmers and producers improved.	32. Percentage increase in agricultural intensive farming and modern animal raising and export crops. 33. Percentage increase in the area planted with crops adopting different agricultural environmental farming. 34. The number of techniques that have been adopted by farmers and producers as a result of guidance, training and veterinary services programs. 35. Percentage of guiding messages known or adopted by farmers, breeders and producers out of the total guiding messages that were delivered by agricultural extension and outreach programs. 36. Number of recommendations from research centers that have been adopted and disseminated by counselors and veterinarians.
1.3. Type and safety of locally produced agricultural commodities of plant and animal origins adhere to the best international standards and are highly competitive in local and international markets.	37. Annual percentage increase in reports issued about the safety of the facility, exported agricultural products, and food of animal origin. 38. Number of measures and post-harvest technology applied by farmers and institutions. 39. .Number of specifications and standards related to agricultural products and processed agricultural products that have been approved by the Palestine Standards Institution.
1.4. Cost of agricultural production, in both plant and livestock sub-sectors, is more competitive.	40. Increase in the number of farmers and breeders that rely on national manufactured input productions or are imported directly from Palestinian companies. 41. Percentage increase of farmers that received a tax recovery rate.
1.5. Plant and animal diseases are controlled and their spread mitigated.	42. Percentage of cattle that are numbered and vaccinated cattle out of the total number of cattle, reaching up to 100% 43. Monitoring reports of animal and common diseases indicate a reduction in the prevalence rate of common diseases and the proportion of diseases in animals. 44. Laboratory testing of animals and their products reports indicate an annual decline in the proportion of diseases. 45. Reports tests of seedlings in nurseries refer to a decline in the proportion of seedlings diseases. 46. Agricultural pests' reports indicate a decline in agricultural pest proportions.
1.6. The business enabling environment of agricultural production, processing and marketing attracts investment and entrepreneurs.	47. Number of legislations that are adopted to attract investors in the agriculture sector 48. The size of budgets allocated to programs to provide business development services to female and male entrepreneurs in the agriculture sector. 49. Percentage increase in funding to support innovators and entrepreneurs in the agriculture sector. 50. Percentage increase in loans granted by banks and financing institutions for agricultural projects

Results	Indicators
Fourth strategic objective: Female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains improved.	51. Increased percentage in the satisfaction of farmers regarding the overall services provided to them by the government, official bodies, civil society organizations and agricultural companies 52. The percentage of recommendations included in agricultural value chain product reports that are adopted by the agricultural service providers, out of the total recommendations.
1.1. Agricultural extension and veterinary services, research, insurance and financial services, as well as business development services continuously developed and expanded.	53. Percentage increase in the number of extension officers, as well as agricultural institutions, associations and veterinarians that have adopted the results of applied studies and research. 54. Percentage increase in the number of workers and veterinarians that have increased their knowledge, skills and attitudes in agricultural extension and veterinary services issues as a result of the training they received. 55. Percentage increase in funding portfolio value of Palestinian Agricultural Credit Institution and percentage increase in the number of borrowers. 56. The number of farmers that have received agricultural business development services and indicated their satisfaction with the services received. 57. Percentage increase in the number and type of laboratory tests.
1.2. Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision.	58. Percentage increase in the number of farmers, women and associations that have signed contracts to export or market their products for feasible prices. 59. Percentage increase in the value of exports from agricultural production and the rate of decline in the value of imports.
1.3. Agricultural risk insurance tools are diversified and developed.	60. Number of implemented agricultural risk prevention tools. 61. Number of farmers and producers benefiting from risk prevention, insurance and agricultural tools.
1.4. Links between knowledge produced by applied research and priorities of agriculture sector development strengthened.	62. Percentage of users that refer to research and studies, and that have indicated benefiting from the overall results and reports of applied studies and research and experiences.
Fifth strategic objective: Effective and efficient institutional and legal frameworks developed	63. Percentage satisfaction of high authorities in relevant institutions about the coordination and knowledge exchange between agricultural institutions. 64. The number of governmental and civil society organizations, and agricultural companies that are committed to the decisions of the coordinating committees and forums in the sector. 65. Percentage increase in the agriculture sector budget.
1.5. Agriculture-related legislations are coherent and support sustainable agricultural development.	66. The number of laws and regulations that have been modified or adopted in order to promote sustainable agricultural development. 67. The number of cases and files against agricultural violators that were submitted to the concerned authorities to hold violators accountable.

Results	Indicators
1.1. Human and physical resources within agricultural organizations enhanced.	68. Percentage increase in the number of workers and veterinarians who have increased their knowledge, skills and attitudes in agricultural extension and veterinary services issues as a result of the training they received. 69. Percentage increase in the amount of funding that is provided to programs and services for agricultural enterprises.
1.2. Palestinian membership in international organizations and endorsement of international treaties and conventions related to agriculture is enhanced.	70. The number of international conventions and organizations that were joined. 71. The number of papers and reports on Palestinian agricultural prepared or provided as part of the meetings of Arab, United Nations and other regional organizations. 72. The number of resolutions and agreements that are adopted or signed promoting sustainable agricultural development in Palestine.
1.3. Knowledge exchange, cooperation and partnership between organizations active in the agriculture sector enhanced, and contributes to improved results-based management and NASS implementation	73. The number of sub-sector plans that are developed in the framework of Resilience and Sustainable Development Strategy, and the number of participants in the preparation of these plans. 74. Percentage increase in the satisfaction of those interested in sustainable agricultural development about the quality of information and studies made available about the different components of the agriculture sector. 75. Number of activities, as well as exchange of experiences and knowledge between agricultural institutions and the number of participants. 76. The percentage of organizations that are committed to applying the M&E system of the strategy.
1.4. Agriculture sector organizations adopt policies and procedures to ensure public health and safety of plants and plant production in fulfillment of market requirements.	77. Pieces of legislation in the field of Sanitary and Phytosanitary that are adopted. 78. Database on animal and plants health annually developed and available to all. 79. Number of certification and periodic reports issued about the health of facilities, plants, and animals.
1.5. Organizations and effective fora established and supported to bring together farmers and producers.	80. Percentage increase of farmers engaged in agricultural cooperatives, councils and frameworks that pay their fees. 81. Percentage increase in the surplus of agricultural cooperatives. 82. The number of activities carried out by agricultural councils and the number of participants or beneficiaries.

12. Resource envelopes

The following tables detail the overall operational and capital costs for project and non-project outputs for the three programs throughout the mid-term budget (2017-2019). The overall financial ceiling for the three programs reached 411,038.50 shekels, out of which 54,689.90 shekels were for the administrative program, 226,283 shekels were for the agricultural development program, and 411,038.50 shekels were for the agricultural services program.

Administrative Program[14]

1. Expenses

Item	2017	2018	2019
Operational costs	18792	17810.760	18345.083
Capital costs	2400	412	424.360
Government funded projects	2000	15000	15000
Externally funded projects	238.26	380	380
Total	**23430.26**	**33602.76**	**34149.44**

2. Budget ceilings

Item	2017	2018	2019
Operational costs	16190	16675.7	17175.9
Capital costs	400	412	424.360
Government funded projects	---	---	---
Externally funded projects	5.700	---	---
Total	**22290**	**17087.7**	**17600.26**

Agricultural Development Program

1. Expenses

Item	2017	2018	2019
Operational costs	35664	33643.92	34653.24
Capital costs	300	309	318.270
Government funded projects	15900	22250	11150
Externally funded projects	52309.06	19699.57	15046
Total	**104173.06**	**75902.49**	**61167.51**

2. Budget ceilings

Item	2017	2018	2019
Operational costs	23360	31270.8	32208.9
Capital costs	300	309	318.270
Government funded projects	10000	10300	10609
Externally funded projects	66330.7	25554.8	1600
Total	**106990.7**	**67434.6**	**44736.2**

14 All amounts in this section are in thousand shekels.

Services Program

1. Expenses

Item	2017	2018	2019
Operational costs	25396	24097.880	24820.816
Capital costs	300	309	318.270
Government funded projects	15000	14897	15405
Externally funded projects	56188.07	37122.37	14305.39
Total	**96884.07**	**76408.25**	**54849.48**

2. Budget ceilings

Item	2017	2018	2019
Operational costs	23396	24097.880	24820.816
Capital costs	300	309	318.270
Government funded projects	15900	22250	11150
Externally funded projects	10063.306	8955.666	6895.666
Total	**49659.31**	**55612.55**	**43184.75**

Annex 1:
The National Team for Drafting NASS

#	Name	Orgnization
1	Abdallah Lahloh,	MoA, Team leader
2	Hassan Al-Ashqar	MoA, Team secretariat
3	Hamdallah Hamdallah	Head of Palestinian Agriculture Credit Institution
4	Mohammed Al MAssri	Risk Prevention and Agricultural Insurance Fund
5	Yousef Altork	Ministry of Labor
6	Mohiee Aldeen Al-Ardah	Local Government Ministry
7	Issa Mosa	Environment Quality Authority
8	Omar Zayed	Water Authority
9	Safia Mohareb	Ministry of Finance and Planning
10	Shadia Abu Alzain	Palestinian Central Bureau of Statistics
11	Monjed Abu Jaish	Palestinian Agricultural Releif Committee (PARC)
12	Fuad Abu saf	Union of Agricultural Work Committee
13	Dr. Azzam Saleh	Food and Agriculture Organization of the UN (FAO), Team Teachnical Advisor

Annex 2:
Strategic Goals Cost

Program	Strategic Goal	Outcomes	2017	2018	2019
Agricultural Development	Sustainable management of agricultural natural resources that is adaptive to climate changes	Volume of water available to farmers and livestock breeders from traditional and non-traditional sources increased and more efficiently managed.	8305086	2250000	1150000
		Area of land cultivated or protected from degradation expanded annually.	20648066.8	16146532	18130000
		Farmers across all governorates access their lands and water resources easily and freely.	6842500	10000000	0
		Organizational and technical procedures that enhance the management of agricultural lands (including forests, rangelands, and natural reserves) adopted and enforced by governmental organizations and local authorities.	9294500	7244500	3450000
		Climate-smart and adaptive, biodiversity-protecting and desertification-combatting agricultural policies and technologies promoted and enforced	1614403	1800000	1600000
	Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security	Agricultural production technologies, cultivars and dynasties used by farmers and producers improved.	5626500	4422020	1520000
		Type and safety of locally produced agricultural commodities of plant and animal origins adhere to the best international standards and are highly competitive in local and international markets.	15878000	86520	346000
	Total cost of Agricultural Development Otucomes		**68209055.8**	**41949572**	**26196000**
Enhancing Agricultural Services	Access of farmers and entrepreneurs to quality agricultural services and respond to the needs of the agriculture sector value chain	Agricultural extension and veterinary services, research, insurance and financial services, as well as business development services continuously developed and expanded.	30027400	35010640	25511720
		Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision.	4160667	4008667	4198666
	Farmers resilience and steadfastness enhanced	Farmers and producers who have sustained damages as a direct result of the Israeli occupation receive the needed support to ensure their steadfastness.	37000000	13000000	0
	Total Cost of Enhancing Agricultural Services Outcomes		**71188067**	**52019307**	**29710386**
Administrative	The agriculture sector has efficient and effective agricultural organizational frameworks and legal environment.	Human and physical resources within agricultural organizations enhanced.	2048260	15000000	15000000
		Knowledge exchange, cooperation and partnership between organizations active in the agriculture sector enhanced, and contributes to improved results-based management and NASS implementation	190000	380000	380000
	Total Cost of Administrative Outcomes		**2238260**	**15380000**	**15380000**

Prepared with support from the Food and Ariculture Organization of the United Nations (FAO)

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