



# **Study on Small-scale Agriculture in the Palestinian Territories**

## **Final Report**

Jacques Marzin. Cirad ART-Dév  
Ahmad Uwaidat. MARKAZ-Co  
Jean Michel Sourrisseau. CIRAD ART-Dév

**Submitted to:**

**The Food and Agriculture Organization of the United Nations (FAO)**



**June 2019**

## ACRONYMS

ACAD	Arab Center for Agricultural Development
CIRAD	Centre International de Recherche Agronomique pour le Développement
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross National Product
LSS	Livestock Sector Strategy
MoA	Palestinian Ministry of Agriculture
NASS	National Agricultural Sector Strategy
NGO	Non-governmental organization
PACI	Palestinian Agricultural Credit Institution
PCBS	Palestinian Central Bureau of Statistics
PNAES	Palestinian National Agricultural Extension Strategy
PARPIF	Palestinian Agricultural Risk Prevention and Insurance Fund
SDGs	Sustainable Development Goals (UN)
SSFF	Small-scale family farming
UNHRC	United Nations human rights council
WFP	World Food Programme

## CONTENTS

<b>General introduction .....</b>	<b>5</b>
<i>Scope and objectives of the study .....</i>	5
<i>Empirical material for this study .....</i>	5
<i>Acknowledgement and disclaimer .....</i>	7
<b>Part I: Small-Scale/Family Farming in Palestine .....</b>	<b>8</b>
1.1 Preliminary information .....	8
1.2 Existing Typologies of Small-Scale Family Farming .....	8
1.2.1 Definition of small-scale farms .....	9
1.2.2 Area vs. productivity of small-scale farms .....	10
1.2.3 Crop composition in the West Bank and Gaza Strip .....	13
1.2.4 Income generated by different types of farms .....	14
1.2.5 Fragmentation of Farm Holdings .....	15
1.2.6 Socio-economic profiles of small-scale farmers .....	16
1.2.7 Labor (FT/PT) per dunum in small-scale farms compared to larger farms.....	18
1.3 Contributions of Small-Scale Agriculture and Family Farming .....	18
1.3.1 Agriculture Contribution to GDP .....	18
1.3.2 Contribution to employment.....	21
1.3.3 The agro-processing sub-sector: size and workforce .....	22
1.3.4 Agricultural exports.....	23
1.3.5 Food security .....	25
1.4 Market and Value Chain Access .....	25
1.4.1 Central Vegetable Markets .....	26
1.4.2 Wholesalers and retailers .....	26
1.4.3 Pricing Policies.....	27
<b>Part II: Trajectory and Dynamics of Structural Change: Demographic Dynamics and Trends .....</b>	<b>28</b>
2.1 Demographic trends.....	28
2.1.1 Population's age distribution.....	28
2.1.2 Urban/rural population distribution .....	28
2.1.3 Farmers distribution by gender .....	30
2.1.4 General characteristics of the rural population .....	31
2.2 Structural Change in the National Economy.....	32
2.2.1 Impossible demographic dividend.....	32
2.2.2 Changes in major sectors' contributions to GDP.....	34
2.2.3 Changes in employment distribution between sectors .....	35
2.2.4 Changes in cropping patterns .....	35
2.2.5 Changes in the livestock sector.....	37
<b>Part III: Support Policies Targeting Small-scale Family Farms .....</b>	<b>38</b>
3.1 Historical and Political Background.....	38
3.2 Public policy and Legal Framework: What Impact on SSA/FF and what Perception? .....	39
3.2.1 Regulatory framework .....	39

<b>3.2.2</b>	<b>Policy and Market Failures</b> .....	40
i.	Structure of vegetables' central markets .....	40
ii.	Marketing support and policy constraints .....	41
iii.	Weak role of farmer cooperatives/associations.....	42
iv.	Lack of effective market policies for inputs .....	42
v.	Water resources and deteriorating water quality .....	43
vi.	Ineffective agricultural extension and support policies.....	43
vii.	Agricultural/rural financing.....	44
viii.	Agricultural insurance .....	44
ix.	Land fragmentation .....	45
x.	National strategies in support of small-scale farmers and agriculture in general .....	45
<b>3.3</b>	<b>Case Studies</b> .....	46
<b>3.3.1</b>	<b>Case 1: Strong Agricultural NGOs</b> .....	46
<b>3.3.2</b>	<b>Case 2: Agricultural Cooperative for Investment and Development, Salfit District</b> .....	46
<b>3.3.3</b>	<b>Case 3: Canaan Palestine, Canaan Fair Trade</b> .....	47
<b>3.3.4</b>	<b>Case 4: Olive oil is the most important asset for Palestinian households</b> .....	48
<b>3.3.5</b>	<b>Case 5: Qalqilya has high value products</b> .....	49
<b>Part IV: Mapping of local NGOs in the agriculture sector – FAO's Implementation Partners</b> .....		<b>50</b>
4.1.	<i>Mapping of majors NGOs and of their main collaborations</i> .....	50
4.1.1.	<b>Role and functions of the major agricultural NGOs</b> .....	50
4.1.2.	<b>NGOs contribution to MoA roadmap and strategy</b> .....	53
4.2.	<i>The strategic posture and position of FAO</i> .....	54
4.3.	<i>SWOT Analysis of Major NGOs in the Agricultural Sector</i> .....	55
<b>Part V: Conclusion and Recommendations</b> .....		<b>58</b>
5.1	<i>Conclusion</i> .....	58
5.2	<i>Recommendations</i> .....	60

## LIST OF TABLES

Table 1 : Informant's distribution per type of organization .....	6
Table 2 : Agricultural Holdings in the West Bank and Gaza Strip by Region and Type (2010)....	10
Table 3 : Distribution of Plant-Based and Mixed Holdings according to their Area (2010).....	11
Table 4 : West Bank and Gaza Strip Holdings according to Size and Purpose (2010) .....	14
Table 5 : Holdings according to the Primary occupation of their Owner .....	15
Table 6 : Cultivated Land Areas in the West Bank and Gaza (2000 -2011) .....	16
Table 7 : Number of Agricultural holders according to Age Group (2010).....	17
Table 8: Distribution of Agricultural holdings according to Type of Holding and Gender of Holders (2010) .....	17
Table 9 : Distribution of Agricultural holdings according to Holding Type and Management Method (2010) .....	18
Table 10 : Share of Agriculture in GDP in the West Bank and Gaza Strip (2012-17) .....	19
Table 11 : Share of Agriculture in Palestinian Exports, 1999-2016.....	23
Table 12 : Exports, Imports and Net Trade Balance for Agricultural Commodities (2017).....	24
Table 13 : Population distribution by type of locality (%).....	29
Table 14 : Poverty rate .....	32

## LIST OF FIGURES

Figure 1: Diversity of topics covered during the interviews.....	6
Figure 2 : Size of Landholding Units in Dunums.....	11
Figure 3 : Contribution of Agriculture to Employment (2017).....	21
Figure 4 : Processing food, feed and timber In Palestine, 2017.....	22
Figure 5 : Age structure in Palestine, 2017 .....	28
Figure 6: Rural population trends, 1955-2050 .....	29
Figure 7 : Percent of rural population by governorate (PCBS definition) .....	30
Figure 8 : Impossible demographic dividend .....	33
Figure 9 : Total and rural annual cohort entering the labor market.....	33
Figure 10 : Agriculture contribution to GDP.....	34
Figure 11 : Agricultural Sector Production (West Bank and Gaza) at Current Prices (USD), 1994-2016.....	35

## General introduction

Agriculture remains of strategic importance for the development of Palestine, although its economic or demographic weight has fallen sharply. It has a strong identity function in a region where this is important, as it shows the link to the land, the village or the clan of origin for all landowners. This probably explains in part two strong features:

- The gradual fragmentation of agricultural land ownership, due to its method of transfer from one generation to the next; and
- The very high level of pluriactivity or part-time farming.

It is therefore important to focus on the dynamics of this small-scale and family-based agriculture, which is the purpose of this report. Hence, we will discuss:

- The characteristics of Palestinian small-scale family farming (Part 1);
- It's demographic and economic context (Part 2);
- Supporting policies that were intended to accompany it in recent decades (Part 3);
- And finally, the role that NGOs can play in rural development dynamics (Part 4).

## Scope and objectives of the study

In 2015, five country profiles of Small-Scale Agriculture (SSA) and Family Farming (FF) were prepared (by a joint FAO, CIRAD and CIHEAM-IAMM team) under FAO's Regional Initiative on Small-Scale Family Farming (SSFF) in the Near East and North Africa region (NENA). A regional synthesis was produced thereafter (<http://www.fao.org/3/b-i6436e.pdf>).

Later on, an additional study addressing program development needs for the Regional Initiative on Building Resilience to Food Security and Nutrition (RI-FSN) and the Regional Initiative on Small-Scale Family Farming (RI-SSFF) in Palestinian Territories was commissioned. The objective of the study is to make a comprehensive review of the situation of small-scale farming, analyze the support received by this type of agriculture, including through the mapping and capacity assessment of local NGOs listed by FAO Offices in WBGS in order to assess in-country capacity and identify potential partners in the implementation of resilience-building and SSFF program activities. This review will inform the preparation of proposals (medium term) to foster the sustainable and inclusive development of small-scale agriculture and family farming and related value chains in the Palestinian Territories as a contribution to building household and community resilience, food security and poverty reduction.

## Empirical material for this study

The analysis developed in this document is based on literature and websites reviews (referenced in the footnotes). The statistical overview relies on PCBS website data, completed with interviews of agriculture specialists and staff. The first part of the study was informed by interviews with staff of specialized organizations and public institutions and focus group discussions with farmers. 2010 census results are used extensively as there is no updated data available. This is an objective limitation of the study, which should be updated once the incoming census data are made available.

55 individuals or groups from the Ministry of Agriculture, NGOs, cooperatives and other sector organizations were interviewed (list in the annexes). They were asked about their organization's role and their own function within same. The interviews also captured their

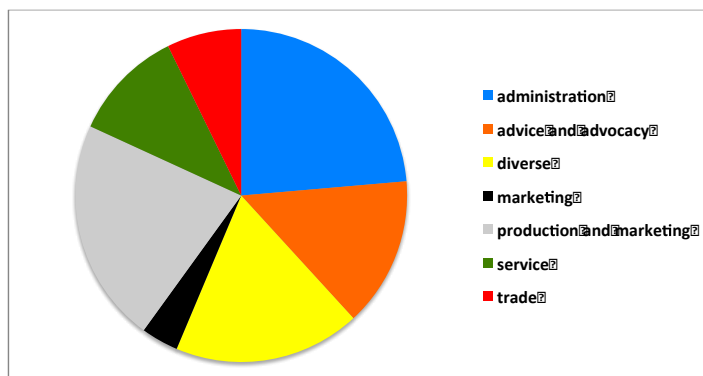
views on small farmers’ constraints, assets and perspectives, as well as their proposals to improve public policies. The table below shows the distribution of informants per type of organization.

**Table 1 : Informant’s distribution per type of organization**

	Government	Business	Cooperative	Foundation	NGO	Union	Other	Total
Gaza	1		2		5			8
Ramallah	13	4	2	2	8	4	1	34
West Bank (other)		1	8	1	2		1	13
Total	14	5	12	3	15	4	2	55

The figure below highlights the main areas of specialization of the informants and the diversity of topics covered by the study.

**Figure 1: Diversity of topics covered during the interviews**



Relations with government
Advice and advocacy
Miscellaneous
Marketing
Production as related to marketing
Services
International trade

In addition to the 55 interviews, 9 focus group discussions were organized with farmers from Qalqilya, Nablus, Halhoul, Tubas, Salfit and Gaza. These collective meetings were aimed at documenting the specific footprint of smallholders on the organizations representing them.

Finally, all this information is completed by the key take-outs of the one-day workshop organized in Ramallah, on NGOs’ sector contribution to SSFF development<sup>1</sup>.

<sup>1</sup> The report of this workshop is available on demand.

### **Acknowledgement and disclaimer**

This report benefited from the invaluable contributions of the people we met who shared their assessment of Palestinian agriculture, and their vision of what contribution their institution could make to its development. It was prepared in close partnership with the FAO Coordination Office for the WBS, whom we thank greatly.

We want to thank especially Azzam Saleh Ayasa for his useful comments. They helped us to improve significantly the document.

The paper is signed by the authors and should be cited accordingly. The findings, interpretations, and conclusions that they express are those of the authors.



## Part I: Small-Scale/Family Farming in Palestine

### 1.1 Preliminary information

This first part aims to analyze the dynamics of Palestinian agriculture. Although the great majority of farms are small in size, there are few relatively large-scale holdings, and the analysis makes it possible to highlight certain elements of differentiation that may inform future agricultural and food policies. Among these, three elements stand out:

- First, size differences are high: 12.4% of farms (over 20 dunums) manage 63.2% of the agricultural area. Land concentration is therefore quite high;
- Secondly, the farms are very largely geared towards subsistence: 72.4% produce primarily for own-consumption;
- Lastly, farming is a secondary activity for 74.4% of farmers.<sup>2</sup>

As a result, different agricultural models and supporting policies must be proposed to respond to the different profiles of farmers. One can at least mention urban agriculture, part-time farmers involved in collective territorial dynamics, and commercial full-time farmers...

The second part aims to review the contribution of agriculture to the Palestinian economy. Despite a limited weight in GDP and employment, agriculture plays an important role in the balance of payments, but also in territorial development. A major challenge remains in the ability of Palestinian agriculture to better supply the domestic market, particularly through the development of a local agroindustry.

Lastly, the third part pays attention to marketing issues, which are particularly important to enhance the link between Palestinian producers and consumers.

### 1.2 Existing Typologies of Small-Scale Family Farming

The West Bank and Gaza Strip cover a total area of 6,020 km<sup>2</sup>, distributed as follows: 5,655 km<sup>2</sup> for the West Bank and 365 km<sup>2</sup> for the Gaza Strip.<sup>3</sup> The two regions are disconnected, given Israel's policy of enforced separation of same. Both can be divided into five (ecological) rainfed zones:<sup>4</sup>

- Coastal areas in the Gaza Strip, where a semi-dry climate prevails, and rain falls at an approximate rate of 200-300 mm per year.
- Semi-coastal areas; which include the northern and western outskirts of the cities of Jenin, Tulkarem and Qalqiliya mainly; covering an area of about 400,000 dunums<sup>5</sup> of mostly fertile land. Rainfall reaches 400-700 mm annually.
- Western highlands encompassing the West Bank cities of Jenin, Salfit, Nablus, Ramallah, Jerusalem, Bethlehem and Hebron, and covering most of the West Bank (3.5 million dunums), with annual rainfall of 300-600 mm. Such land is suitable for rain-fed crops but is also subject to rainfall variability.

---

<sup>2</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories.*

<sup>3</sup> Palestinian Bureau of Statistics. *2017 census. Indicators for Household Budget.*

<sup>4</sup> Palestinian Ministry of Agriculture. *The State of Family-Scale Agriculture in the West Bank. A diagnostic study.* 42-43.

<sup>5</sup> Dunum = 1,000 m<sup>2</sup>

- Eastern slopes, which cover an area of 1.5 million dunums, are not suitable for agriculture without irrigation, given that rainfall ranges between 150-300 mm annually. The irrigated area is a vital source of vegetable production destined for the West Bank or for export. Irrigation water is drawn from springs, artesian wells and aquifers. Pastoral lands are underutilized because of Israeli occupation measures.
- Lower area of the Jordan Valley, which includes about 400,000 dunums of sandy land, characterized by an abundance of lime soils. Rainfall is as low as 150 mm per year, resulting in high soil salinity. The region is characterized by a warm winter, which makes it possible to grow crops in the off-season, at low cost.

According to data from the Palestinian Ministry of Agriculture, agricultural lands cover a total surface area of about 1.2 million dunums, representing 20% of the total area of the West Bank and Gaza Strip. 90% of all agricultural lands are found in the West Bank and 10% in the Gaza Strip.<sup>6</sup>

81% of total agricultural land is rain-fed, while 19% is irrigated. The total area of rangeland is estimated at 2.02 million dunums, while only 621,000 dunums are accessible to Palestinian livestock farmers and herders (the rest being closed by Israeli occupation authorities). Classified forests stretch over 94,000 dunums. There are 48 natural reserves, 17 of which are in areas governed by the Palestinian National Authority. These natural reserves are mostly situated in the eastern slopes and Jordan rift valley. The remainder are under Israeli control.

It is worth noting that 62.9% of all agricultural lands are found in Area C, therefore under full Israeli control; 18.8% are in Area B; and 18.3% in Area A.<sup>7</sup>

### 1.2.1 Definition of small-scale farms

Small-scale family farming is the prevailing type of agriculture in Palestine. *“There is no exact definition for small farmers in Palestine. Almost all farmers are small per universal standards, and there are no national criteria to classify them. According to PCBS, there are 110,000 farmholders in the West Bank and 30,000 in Gaza. 85% of them are viewed as small farmers per international standards.”*<sup>8</sup> MoA defines small-scale family farming as *“the simplest and most obvious model of farm unit, where a farmer controls the production, resources and assets of the farm, including labor”*.<sup>9</sup>

Similarly, an FAO study emphasized that family farming includes all family-based agricultural activities, as a *“means of managing agricultural, forestry, fisheries, grazing and aquaculture production”*. It is run and managed by male and female family members as a *“production unit where ownership and work are linked to the family. This linkage creates more complex*

<sup>6</sup> Ministry of Agriculture. *National Agriculture Sector Strategy (2017-2022)*.

<sup>7</sup> Area A has full Palestinian civil and security control, Area B has full Palestinian civil control and joint Israeli-Palestinian security control and Area C has full Israeli civil, security, planning and construction control. Area C surrounds Areas A and B of the West Bank. It is mostly located in the eastern part of the West Bank along the Jordan Valley, and in the western and central parts of the West Bank. Data from Palestinian Ministry of Agriculture. *Agricultural Sector Strategy: Development and Steadfastness – 2014-2016, situational analysis*, page 12.  
<https://reliefweb.int/sites/reliefweb.int/files/resources/1417423273.pdf>

<sup>8</sup> Hasan Ashqar, General Director of Planning and research Dep. MoA

<sup>9</sup> Palestinian Ministry of Agriculture, 2014. *Small-scale family farming in the WB: A diagnostic study*, page 18

concepts related to the transfer of heritage and the reproduction of agricultural work. The family farm thus becomes an object that embodies different economic, technical, social and cultural realities".<sup>10</sup> This definition doesn't refer to a maximum size.

According to MoA definition, family farming incorporates several elements:<sup>11</sup>

- Ownership and management of agricultural activities are in the hands of the family or a family relative.
- Ownership of agricultural activities, as well as their management, is inherited or transferred within the family.
- Almost all agricultural physical activities are performed by family members.
- An important (sizable) part of the capital invested in the farm is provided by family members.
- The family derives a high percentage of its income from the family farm.
- Partners are close relatives or distant family members.
- The family lives on agricultural land.

### 1.2.2 Area vs. productivity of small-scale farms

The General Census of Agriculture (2009-2010) identified a total number of 111,310 agricultural holdings in Palestine, of which 90,908 are in the West Bank (81.7%) and the remaining 20,402 in the Gaza Strip (18.3%). Plant holdings are most common in the Palestinian Territories, reaching 75.3% of total holdings. Agricultural holdings are divided between livestock and mixed farms, with livestock farms reaching 12.8% and mixed farms representing 16.1% of total agricultural holdings in the Palestinian Territories.<sup>12</sup>

Table 2 : Agricultural Holdings in the West Bank and Gaza Strip by Region and Type (2010)

Area	Holding Type			Total
	Plant	Animals	Mixed	
Palestinian Territories	79,176	14,241	17,893	111,310
	71.1%	12.8%	16.1%	100.0%
West Bank	65,267	10,879	14,762	90,908
	71.8%	12.0%	16.2%	100.0%
Gaza Strip	13,909	3,362	3,131	20,402
	68.2%	16.5%	15.3%	100.0%

In this study, a wide range of land areas are used to define small-scale farms as compared to the total area of land holdings. "PCBS consider up to 5 dunums as too small";<sup>13</sup> others consider it to be less than 10 dunums; while third-parties mention less than 20 dunums. According to

<sup>10</sup> Marzin et al., 2016. Study on Small-Scale Family Farming in the Near East and North Africa Region. p. 13.

<sup>11</sup> Palestinian Ministry of Agriculture, 2014. Small-scale family farming in the WB: A diagnostic study, p. 20

<sup>12</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories.*

<sup>13</sup> Azzam Saleh, FAO. (NGOs Workshop)

PCBS, 87.3% of agricultural land holdings in Palestine are less than 20 dunums; those with less than 10 dunums represent 71.7% of the total number. However, large holdings (20 dunums or more) constitute 64.2% of the total land area of all holdings, as illustrated by the following table.<sup>14</sup>

**Table 3 : Distribution of Plant-Based and Mixed Holdings according to their Area (2010)**

Area Category (dunum)	Number of Holdings			Total Area of each Category of Holding		
	Number	Percentage (%)	Cumulative percentages (%)	Area	Percentage (%)	Cumulative percentages
Less than 3	46,982	42.2	42.2	53,353.14	4.4	4.4
3-9.99	36,804	33.1	75.3	192,903.92	16.1	20.5
10-19.99	13,763	12.4	87.7	184,337.30	15.3	35.8
20+	13,761	12.3	100	772,129.15	64.2	100
<b>Total</b>	<b>111,310</b>	<b>100</b>		<b>1,202,723.51</b>	<b>100</b>	

**Figure 2 : Size of Landholding Units in Dunums**

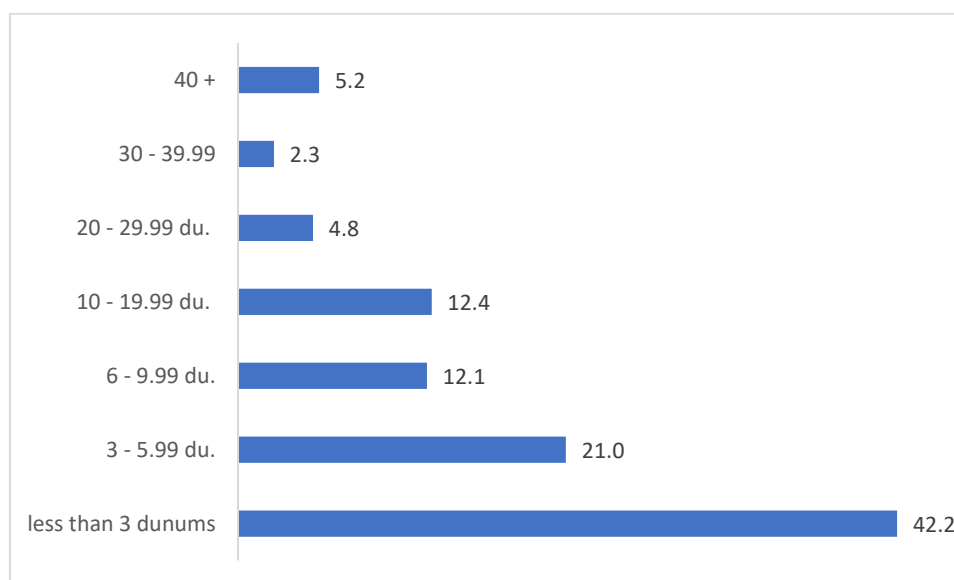


Table 2 shows that about 87.7% of holdings cover a small surface area of less than 20 dunums, whereas farms of 20 dunums and above make up less than 12.4% of all holdings. However, in terms of total surface area, it is worth noting that 42.2 % of farm “holdings” make use of less than 5% of the surface area, whereas 12.3% of farm “holdings” of more than 20 dunums each cover 64.2% of the surface area.

Almost all experts and organizations interviewed during this study indicated that small-scale and family farms are not necessarily characterized as ‘small’ in area. Many partners usually use the area coefficient to distinguish between large, medium and small farms. But this

<sup>14</sup> PCBS, 2013. *Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder famers*. Prepared by MAS. Page 21.

element alone is insufficient because of variations in land productivity depending on the level of fertility and irrigation. Low-fertile lands – like the eastern slopes and arid areas of the West Bank – are suitable for certain crops which require limited modern technology. The intensification of agricultural production in these areas is hardly or not feasible. As a result, productivity per dunum of such low-fertile lands is much lower than that of coastal lands or inland plains or irrigated agricultural lands. A study conducted by MAS revealed that the productivity of one irrigated dunum (for intensive production) is 28 times higher than that of a rain-fed dunum.<sup>15</sup> Discussions and interviews revealed that a rain-fed farm of 80 dunums cannot provide enough income to a farm household, while 2 dunums of irrigated land can be more productive and yield higher economic returns – through intensified agriculture.

Resultantly, as MAS study indicated, it may be the case that smaller land holdings are much more productive than larger ones, considering the above-mentioned factors. The same applies to livestock rearing. It should also be indicated that the proximity of agricultural lands to Israeli settlements or outposts has a significant bearing on their overall productivity due to access limitation.

Agricultural census data for 2010 indicate that approximately three quarters of agricultural lands are 10 dunums in size or smaller, and 25% of their production is destined for the market. Equally, land areas of 80 dunums or more make up 1.8% of agricultural lands, and about 50% of their production is intended for the market. This further shows that area (size of the land) alone may not be the only parameter to determine the typology of agricultural lands. This criterion might be completed by the level of market integration, as well as the share of agricultural income in the total income of the family.

The above evidence aptly demonstrates that land area alone is not a decisive parameter in distinguishing between small and large farms. Unfortunately, there is no categorization for agricultural holdings with respect to their economic returns, which could be the most appropriate indicator in defining small-scale farming, an issue that needs to be addressed by relevant stakeholders. This is highlighted in the recommendations section of this study.

Another proxy indicator for small-scale family farming could be the type of farm labor, where holdings that use paid labor are not considered to be small-scale family farms, while those that depend exclusively on family work, or partially on paid labor, are mainly small family farms. Based on this, in Palestinian territories, 95% of land holdings are small-scale family farms.

It is worth mentioning that micro-holdings (home gardens or farms with a few heads of cattle) are not included in the agricultural census and agricultural statistics, despite the (small) contribution of home gardens to household income.<sup>16</sup> This kind of agricultural production meets part of the household's consumption needs, which is key to improving their consumption levels and food security. Statistics from 2015 show that an average of 27.4% (33% in WB, 16.8% in Gaza) of Palestinian households own a home garden, and 91.9% of households with a home garden use these for agricultural activities.<sup>17</sup>

---

<sup>15</sup> Dr. Fathi Srouji, *Irrigated agriculture as business enterprises in Palestine*, MAS, 2009

<sup>16</sup> Interview with Shadia Abu Alzein, Department Director, Agricultural Statistics Department, PCBS.

<sup>17</sup> PCBS, 2016. *Family farming survey in 2015: main findings*. Page 15.

Finally, small-scale family farms are characterized by high flexibility that allows them to quickly adapt to economic, political and social changes. This includes a noted ability to diversify livelihoods, flexible labor and assimilation of certain modern techniques. This flexibility enhances the efficiency of family farms which is dependent on the efficiency of family work. Production and marketing sustainability means that "returns" are not only achieved at the economic level (by maximizing profits), but also at the social and cultural levels.<sup>18</sup>

### 1.2.3 Crop composition in the West Bank and Gaza Strip

Palestine is characterized by multiple crop structures resulting from climate variability. There are more than 100 major types of crops.

Agricultural lands account for 20%<sup>19</sup> of the total area of the West Bank and Gaza Strip. Fruit represents the bulk of cultivated areas (56.7%). Of the total land area planted with trees, olives hold the largest share (85%), followed by grapes (3.9%) and almonds (2.3%).<sup>20</sup>

Field crops cover 25.3% of the cultivated land area, and vegetables 13.3% of farmlands (79% in the West Bank and 21% in Gaza). 75.3% of vegetables farms in the West Bank and 41.4% in Gaza are irrigated. Note that irrigated agriculture in Palestine represented about 9.1% of total agricultural lands in 2010.<sup>21</sup> This distribution is derived from data made available by the 2010 census. We cannot ascertain that these findings are still valid 9 years later, owing to the huge investments and developments that have taken place in the sector.

The main crops include various types of trees, most of which are olive trees, followed by field crops and vegetables. After 1967, Israeli policy induced several changes in the composition of crop structures. This change continued after the establishment of the Palestinian Authority. For example, there has been a shift from depending on oranges to cultivating vegetables and flowers in the Gaza Strip, coupled with a decline in field cultivation of commercial crops in the West Bank (especially in favor self-consumption). Among other factors explaining these changes, one can also cite water issues, Israeli market demand, subcontracting arrangements with Israel traders/factories and opening of the labor market in Israel. This was accompanied by increased dependence on agricultural inputs from the Israeli market, especially seeds, fertilizers and pesticides.<sup>22</sup>

---

<sup>18</sup> For more information on the dynamics of small businesses (family), see: Yusuf Nasser, 1999. *Palestinian Small Business Enterprises in the West Bank: Their Nature and Conditions of Success*. Ramallah: Forum for Social and Economic Research in Palestine. The researcher stressed that the productive behavior of small enterprises (not just agricultural) is not based on standard assumptions on maximizing profit or income or market share. He stressed that their behavior is logical in a context of uncertainty and instability, where survival and steadfastness is the indicator of success.

<sup>19</sup> National Agriculture Strategy, 2017-2022

<sup>20</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories*.

<sup>21</sup> Ibid.

<sup>22</sup> This paragraph is informed by three sources: the first line is taken from the study of Jibril Jahshan titled "*The Agricultural Question in Palestine*" (unpublished, pp. 46-47); the second is a quote from the study of Adel Samara "*The Economics of the West Bank and the Gaza Strip from the Detention of Development to Popular Protection*", and the third comes from the writings of George Karzem, especially his study titled "*Towards Alternative and Self-Reliant Agricultural Development*" (Development Studies Program, Birzeit University, 1999).

The spread of rain-fed agriculture (in terms of area), resulting from limited water resources for both natural and political reasons, is one of the greatest determinants of productivity. Yet, Irrigated agriculture weakens rain-fed farming. Palestinians use only 18% of their water resources in the West Bank<sup>23</sup>, largely because of the Israeli controlling the balance. Water availability and use (especially in agriculture) in Palestine is determined by a combination of political, climatic and managerial factors. In the West Bank, the water provisions of the Oslo agreement established hard ceilings for allowable Palestinian extractions from existing aquifers and prevent the Palestinians from drilling new wells or increasing the use of existing wells.

#### 1.2.4 Income generated by different types of farms

Agricultural census data show that smaller individual or family-based holdings are predominately (72.4%) geared towards household consumption. On the other hand, holdings that are registered as companies or government units are capital or investment-based entities and therefore predominately market-oriented (84.1% of those holdings). The number of holdings of such type is quite small (0.1% of all holding types).

It is worth mentioning that while agricultural production in the West Bank is mostly destined for household consumption, holdings in the Gaza strip are largely geared towards market production.

Small holdings tend to produce for household consumption (ranging from 73-78% for holdings of 10 dunums or smaller). As the size of the holding increases, production tends to shift from household consumption to market distribution. Still, about half of large holdings (80 dunums or more) tend to produce for household consumption.<sup>24</sup>

**Table 4 : West Bank and Gaza Strip Holdings according to Size and Purpose (2010)**

Holdings Size (dunums)	Primary purpose		Total	Primary purpose		Total (%)
	Family consumption	Marketing		Family consumption (%)	Marketing (%)	
Up to 2.99	33,322	12,307	45,629	73.0	27.0	100
3-5.99	17,833	5,023	22,856	78.0	22.0	100
6-9.99	9,979	3,252	13,231	75.4	24.6	100
10-19.99	9,561	4,015	13,576	70.4	29.6	100
20-29.99	3,443	1,813	5,256	65.5	34.5	100
30-39.99	1,578	989	2,567	61.5	38.5	100
40-49.99	868	651	1,519	57.1	42.9	100
50-59.99	611	473	1,084	56.4	43.6	100
60-69.99	338	300	638	53.0	47.0	100
70-79.99	286	233	519	55.1	44.9	100
80+	996	1,045	2,041	48.8	51.2	100

<sup>23</sup> Jad Isaac and Nader Hrimat, A Review of the Palestinian Agricultural Sector. Spanish cooperation.

<sup>24</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories*.

Total	78,815	30,101	108,916	72.4	27.6	100
-------	--------	--------	---------	------	------	-----

Agriculture is a secondary activity for most farmers (alongside their primary employment), that is about three-quarters of agricultural holders. Only the biggest ones (more than 8 ha) are predominantly market-oriented. This percentage is higher in the West Bank (77.3%) than in the Gaza Strip (61.5%).<sup>25</sup>

**Table 5 : Holdings according to the Primary occupation of their Owner**

	Main activity of Holding Owner		Total
	Farming	Non-farm	
<b>Palestinian Territories</b>	27,802	80,757	108,559
%	25.6	74.4	100
<b>West Bank</b>	20,074	68,435	88,509
%	22.7	77.3	100
<b>Gaza Strip</b>	7,728	12,322	20,050
%	38.5	61.5	100

A significant factor is the level of unemployment in both regions, as the agricultural sector is flexible enough to serve as a haven for those who lose their job. Part-time farming is a crucial issue for public policies.

### 1.2.5 Fragmentation of Farm Holdings

Agricultural landholdings in Palestine are small and fragmented – mainly because of the inheritance system as well as land confiscation by Israel. Furthermore, some landholdings owned by a single person may be scattered across several village locations. The average size of an agricultural landholding was about 10.84 dunums in 2010.<sup>26</sup> In comparison, it was 18.6 dunums in 2004.<sup>27</sup> In 6 years, the average area of an agricultural holding has decreased by 42%, which can be attributed to land fragmentation due to various causes.

Small-size landholding is the most prevalent agricultural land ownership system and further fragmentation is the prevailing trend. This has a negative impact on the attractiveness of the agricultural sector to capital investment and further discourages the use of expensive agricultural technology. Fragmentation also discourages young entrepreneurs to venture into agricultural projects, thus furthering the decline of farm labor as a major source of income.

The size of cultivated lands in the West Bank and Gaza Strip hardly changed between 2000 and 2008, but declined significantly in subsequent years. This decline affected areas of permanent and temporary agricultural lands, as well as rain-fed and irrigated lands, but did not touch on lands classified as forests. Cultivated land area shrank by 38.5% during this period, permanent agricultural and rain-fed lands being the most affected. A study by UNCTAD in 2015 linked this significant decline in cultivated areas to the expansion of "*Israeli colonies, restrictions on access to water, urbanization at the expense of agricultural land and*

<sup>25</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories.*

<sup>26</sup> Ibid, table 13.

<sup>27</sup> PCBS Farm Structure Survey, 2004\2005 Main Findings, Table 11



construction of the Apartheid Wall.”<sup>28</sup> On a per capita basis there was a sharp reduction of cultivated land, which fell by 61.8% between 2000 and 2011, as shown in the table below.<sup>29</sup>

Table 6 : Cultivated Land Areas in the West Bank and Gaza (2000 -2011)

Year	Area of Permanent Cultivated Land Per Capita (m <sup>2</sup> )
2000	407.9
2001	356
2002	331.8
2003	309.8
2004	316.9
2005	305.1
2006	292.3
2007	309.2
2008	302.1
2010	139.8
2011	156
Difference between 2000 and 2011	-61.8%

Studies and discussions show that the most salient reason behind the structural fragmentation of agricultural landholdings in Palestine is social in nature, i.e. mainly based on inheritance patterns, where farmers tend to hand over to their children land of similar quality and size. Economic gains are another major factor, mainly because of the perception that agriculture is no longer a good source of income for the farmer. In such case, and because of the high monetary value of land, landowners prefer to sell their holdings. A second reason is the relatively high cost of agricultural production, which sometimes plays a key role in obliging farmers to sell part of their land to be able to finance the remaining part. In addition, some farmers leave their villages to seek gainful employment opportunities elsewhere. This has led some of them to abandon their lands, and in many cases, to sell all or part of same. Third comes the regulatory framework, i.e. the non-enforcement of regulations protecting agricultural land. Recently, urbanization has started to absorb agricultural areas because of the limited availability of land for expanding cities, including closed military areas, settlements, etc. Lastly, land fragmentation can be explained by the increasing pressure of population growth and regulatory schemes, which led to some lands being reclaimed, therefore contributing to further fragmenting agricultural holdings.<sup>30</sup>

### 1.2.6 Socio-economic profiles of small-scale farmers

The average age of all landholders is 51 years for agricultural and mixed holdings (44 years for livestock holders).<sup>31</sup> Young Holders aged 15-29 make up 4.7% of the total farmer population in the West Bank and Gaza Strip (4.4% in the West Bank and 6.2% in the Gaza Strip are less than 30). More than half are aged 50 or more.<sup>32</sup>

<sup>28</sup> UNCTAD, 2015. *The Besieged Palestinian Agricultural Sector*, page 8.

<sup>29</sup> 2010/2011 data sourced from 2010/2011 Agriculture Survey, 2009/2010 data from 2010 Agriculture Census, while data for previous years are derived from administrative records of the Ministry of Agriculture (estimates)

<sup>30</sup> MAS, 2013. *Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder farmers.*

<sup>31</sup> Shadia Abu Zein and Ahmad Merdawi, 2012. *Demographics of Agricultural Landholders in the Palestinian Territories.*

<sup>32</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories.*

Table 7 : Number of Agricultural holders according to Age Group (2010)

Location	Age Group of Landholders					Total
	15-29	30-39	40-49	50-59	60+	
Palestinian Territories	5,219	19,072	31,459	25,831	28,309	<b>109,890</b>
	4.7%	17.4%	28.6%	23.5%	25.8%	<b>100%</b>
West Bank	3,980	15,547	25,974	21,033	23,260	<b>89,794</b>
	4.4%	17.3%	28.9%	23.4%	25.9	<b>100%</b>
Gaza Strip	1,239	3,525	5,485	4,798	5,049	<b>20,096</b>
	6.2%	17.5%	27.3%	23.9%	25.1%	<b>100%</b>

With regards to academic attainment, data indicate that about 80% of farmers have up to secondary level education, while 12.8% of total landholders hold a bachelor's degree or higher.

Figures from the 2010 agricultural census show an increase in the percentage of female landholders, accounting for 7.2% of all individual and family holdings. This shows a marked increase from the 2004-05 figure of 4.5%. This may be due to a greater access by women to their legal inheritance rights. However, there was no difference in the percentage of female landholders with respect to farming or livestock rearing, which stood at 7.9% in 2010 and 7.6% in 2004-05 (see table 8 below).<sup>33</sup>

Young people (less than 40 years old) make about 20 % of landholders. We already linked this finding to land fragmentation. The peculiar situation of Palestinian Territories where urban and rural areas hold strong links explains that (i) there is a tendency for youth to prefer modern/urban lifestyle, ii) the labor market in Israel attracts youth of the WB and Gaza strip, iii) the high level of wages offered in Israel was one of the factors that actually distorted the local economy and gradually led to youth abandoning agriculture, and (iv) youth lack information about opportunities, innovation and the potential for value addition in agriculture (interview with UWACS).

Table 8: Distribution of Agricultural holdings according to Type of Holding and Gender of Holders (2010)

Gender	Type of Agricultural Holding			Total
	Plant	Livestock	Mixed	
Male	92.1	92.4	96.3	<b>92.8</b>
Female	7.9	7.6	3.7	<b>7.2</b>
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Agricultural holdings are mostly managed by the holders themselves or by a family member. A small proportion of landholdings are managed by a paid employee: 2.7% of plant-based

<sup>33</sup> Shadia Abu Zein and Ahmad Merdawi, 2012. *Demographics of Agricultural Landholders in the Palestinian Territories*.

farms, 1.4% of livestock holdings and 0.9% of mixed holdings as shown in table 8. This highlights the prevalence of family farming in Palestinian agriculture.<sup>34</sup>

**Table 9 : Distribution of Agricultural holdings according to Holding Type and Management Method (2010)**

Holding Type	Management method	Palestinian Territories	West Bank	Gaza Strip
		%	%	%
Plant	Holder	74.7	73.7	79.8
	Paid Manager	2.2	2.1	2.7
	Family Member	23.1	24.2	17.5
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Livestock	Holder	75.3	73.2	82.3
	Paid Manager	1.4	1.5	1.0
	Family Member	23.3	25.3	16.8
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Mixed	Holder	69.4	67.3	79.1
	Paid Manager	0.9	0.8	1.7
	Family Member	29.7	31.9	19.2
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### 1.2.7 Labor (FT/PT) per dunum in small-scale farms compared to larger farms

Palestinian agricultural holdings depend mainly on family labor. 56.2% of farm-holdings rely on permanent family labor, while 52.3% use temporary family labor.<sup>35</sup> The percentage of landholdings that depend on permanent family labor is higher in the West Bank than in Gaza. Farming methods in the Gaza Strip differ from those used in the West Bank, as Gaza is more dependent on irrigated than rain-fed crops, as compared to the West Bank, which requires seasonal labor only.

Only 5,700 agricultural holdings or 5.1% of the total holdings in the Palestinian Territories used permanent labor in 2010, of which 42.9% had one permanent worker and 48.2% employed 2 to 5 permanent workers. 8.9% had 6 or more permanent, paid agricultural workers. The average number of employed workers per agricultural holding is 2.75.<sup>36</sup>

## 1.3 Contributions of Small-Scale Agriculture and Family Farming

### 1.3.1 Agriculture Contribution to GDP

In 2017, the value of agricultural production (at constant prices) was \$390 million, registering a continuous annual decline since 2012 (\$574.4 million), when it accounted for 4.8% of GDP.<sup>37</sup> This share fell to 2.8% in 2017.<sup>38</sup> The table below shows the added-value of agriculture to GDP.<sup>39</sup>

<sup>34</sup> PCBS, 2011. *Agricultural Census Data – Final Results, Palestinian Territories*.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> PCBS, 2018. *Palestinian Economic Performance 2017*.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

Table 10 : Share of Agriculture in GDP in the West Bank and Gaza Strip (2012-17)

Year	Agriculture Added-Value			% Contribution to GDP		
	Palestine	West Bank	Gaza	Palestine	West Bank	Gaza
	Added-Value (x 10 <sup>6</sup> USD)*	Added-Value (x 10 <sup>6</sup> USD)*	Added-Value (x 10 <sup>6</sup> USD)*	Contribution to GDP (%)	Contribution to GDP (%)	Contribution to GDP (%)
2012	574.4	394.60	179.9	4.8	4.5	5.5
2013	525.0	333.00	190.5	4.3	3.8	5.5
2014	485.2	340.10	145.5	4.0	3.7	4.9
2015	450.1	308.00	142.5	3.6	3.2	4.5
2016	413.5	281.50	132.0	3.1	2.9	3.9
2017	390.0	266.20	123.8	2.8	2.6	3.7

\* At constant prices, base year 2015.

As one can infer from the above table, the agricultural sector's contribution and added-value to GDP have been declining over the years, in both absolute and relative terms. Three main factors can explain this trend:

- Internal factors. This decrease is in part due to growth in other sectors such as services, construction and information technology. We can also cite urban development and the related fragmentation and low productivity of land, the use of traditional techniques and the need for modernization.
- External factors. Continuously enforced Israeli policies have led to the marginalization of the Palestinian agricultural sector, through land confiscation and restrictions on the movement of goods and on access to natural resources. Agriculture profitability declined for reasons related to market price fluctuations, expensive inputs, ineffective marketing processes, dumping of Israeli products into Palestinian markets.
- Climate change. Climate change and harsh weather conditions have also resulted in enhancing variations in the production of some of the main Palestinian agriproducts such as olives, olive oil and vegetables.<sup>40</sup>

On the eve of the establishment of the Palestinian Authority, the share of agriculture to gross domestic product (GDP) was 39.5% (1992).<sup>41</sup> It should be noted that before the establishment of the PA, there were several highly marginalized sectors such as the public sector, banking, insurance, finance and other economic activities that were almost none-existent.

*Restrictions on trade, movements of people and goods, and use of natural resources have debilitated Palestine's productive sectors and changed the structure of its economy. By 2015, the share of agriculture and industry, the two core sectors producing tradable goods, dropped by half, from 37% to 18%. This shift constrained job creation by limiting room for further*

<sup>40</sup> ARIJ, March 2015. Palestinian Agricultural Production and Marketing between Reality and Challenges.

<sup>41</sup> Awadallah Mohammad Ahmad, 2017. The weakness of Palestinian production sectors and its impact on exports. Master's Thesis, Al-Azhar University. Page 70.

expansion in sectors like services and construction, which are less dynamic and have less potential for job creation and technological innovation than tradeable sectors (UNCTAD, 2017).<sup>42</sup> In fact, the contribution of agriculture and industry to employment decreased from 47% to 23% between 1975 and 2014. Eroded in its vital assets and by the continued appreciation of the real exchange rate, the agriculture sector specifically waned over two decades, dropping its contribution to GDP from 13% in 1994 to 3.4% in 2015, with the share of persons (aged 15 and above) it employs decreasing from 14.1% to 8.7%<sup>43</sup> in the period from 2000 to 2015. (UNCTAD, 2016: calculations on the base of PCBS data.)

This is not the reflection of a typical country in transition towards industrialization and economic development. Over time, the productive capacity and competitiveness of the agricultural sector was hampered as a result of multiple shocks and protracted restrictions that, coupled with the continued appreciation of the real exchange rate, promoted the reallocation of productive resources towards non-tradable sectors. (UNCTAD, 2016).<sup>44</sup> This trend has been discouraging private investments that otherwise would have the potential to sustainably valorize natural resources.

The protracted occupation has significantly undermined agriculture in Palestine. Both horizontal (land area) and vertical (intensification) expansion of the agriculture sector have been restricted for decades. Horizontal expansion is limited by restrictions on essential land and water resources. Most land resources are located in Area C that is under full Israeli control and represents 61% of Palestinian lands, including almost two thirds of the West Bank's farmlands. Palestinian permanent investment and the intensification of agriculture are not allowed in Area C. Similarly, Palestinian use of water in the West Bank, most of which lies in Area C, is limited to 20% of the total water in the aquifers. Despite the fact that Area C represents the largest part of West Bank land, "less than 1 per cent of Area C, which is already built up, is designated by the Israeli authorities for Palestinian use; the remainder is heavily restricted or off-limits to Palestinians, with 68% reserved for Israeli settlements, circa 21 per cent for closed military zones and circa 9% for nature reserves". Irrigating this unexploited area as well as accessing additional range and forest land could deliver an additional US\$ 704 million in value-added to the Palestinian economy – equivalent to 7% of GDP at 2011 levels (World Bank, 2013). Vertical expansion of agriculture is limited by lack of access to markets, high costs of production and lack of access to pesticides and equipment; in Gaza, it is constrained by restrictions associated with the closure. Nevertheless, agriculture plays a key role as a component of economic growth, an enabler of social development and a contributor to environmental sustainability, in addition to being considered by the Government as of primary importance in ensuring the resilience of the population vis-à-vis Israeli occupation. A well-known World Bank study of 2013<sup>45</sup> estimated that if Palestinians had access to Area C, the potential direct additional output solely, under conservative assumption, would amount to at least USD 2.2 billion per annum in valued-added terms – a sum equivalent to 23% of 2011 Palestinian GDP (USD 3.4 billion including indirect/spillover effects). Noting that Area C is where most of agricultural land is found, for the agricultural sector alone, only irrigating this unexploited area and accessing additional range and forest land could deliver an additional USD 704 million in value-added to the Palestinian economy – equivalent to 7% of 2011 GDP.

---

<sup>42</sup> UNCTAD, 2017. The Occupied Palestinian Territory: Twin Deficits or an Imposed Resource Gap?

<sup>43</sup> UNCTAD, 2016. Les coûts économiques de l'occupation israélienne pour le peuple palestinien

<sup>44</sup> Ibid

<sup>45</sup> WB, 2013. West Bank and Gaza: Area C and the Future of the Palestinian Economy

### 1.3.2 Contribution to employment

Historically, the agricultural sector has played an important role in providing employment opportunities, especially in times of crisis, during which it is difficult to find work in other sectors. This characteristic enhances the role of agricultural sector in strengthening the resilience of Palestinians and increasing their capacity to adapt.

Figure 3 : Contribution of Agriculture to Employment (2017)

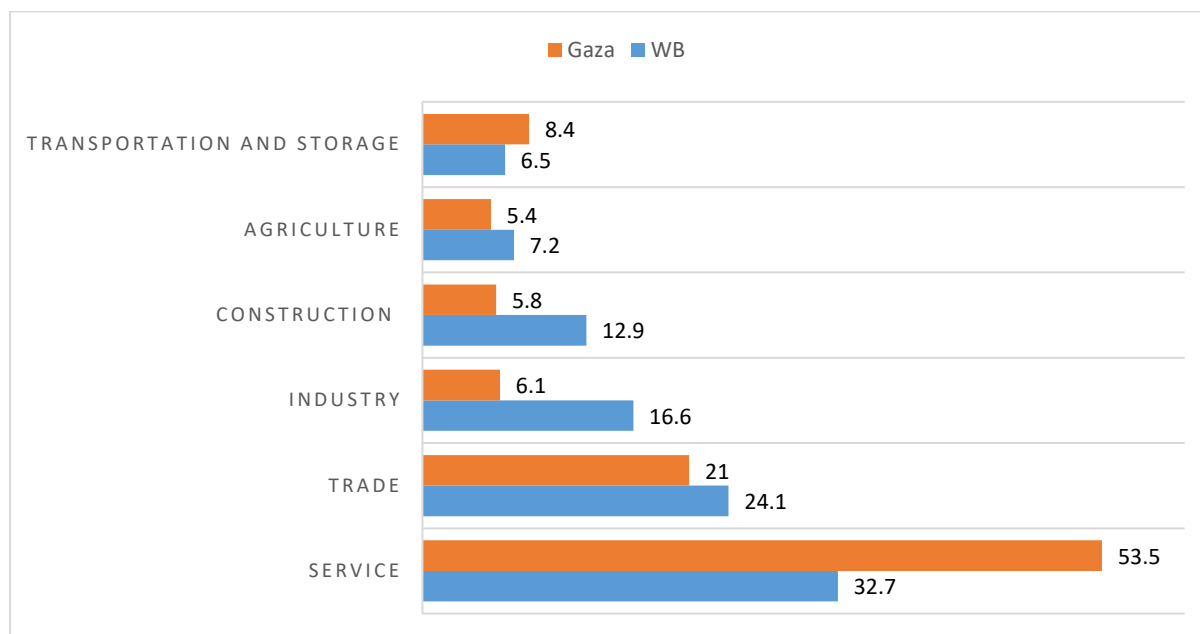
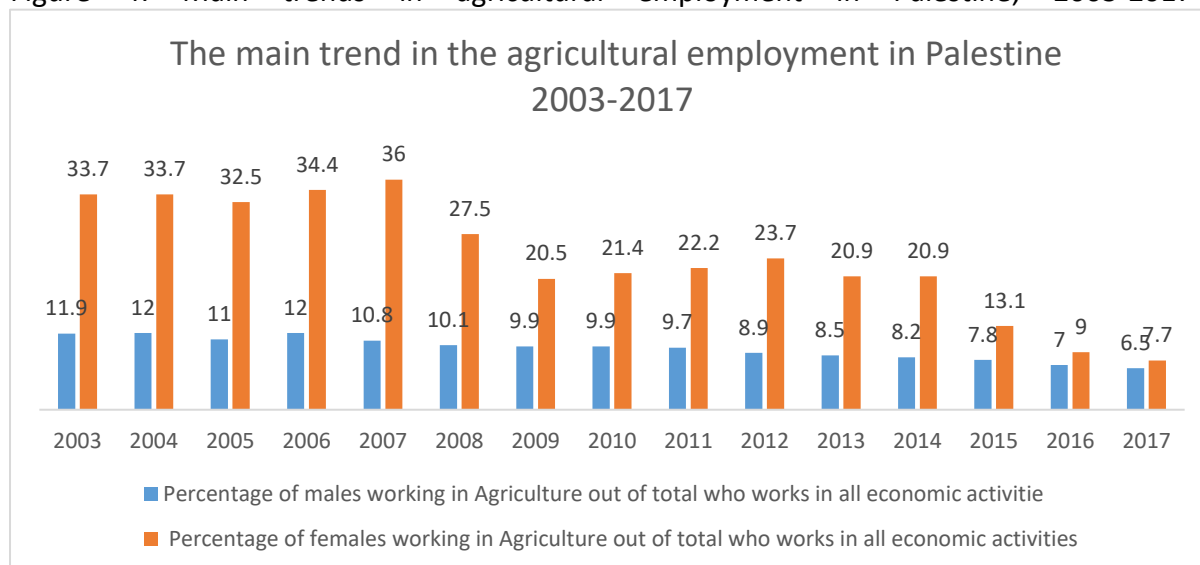


Figure 4: Main trends in agricultural employment in Palestine, 2003-2017<sup>46</sup>



Percentage of males employed in agriculture out of total males in all economic sectors

Percentage of females employed in agriculture out of total females in all economic sectors

<sup>46</sup> source: PCBS, Data base of Labor force survey, 2018

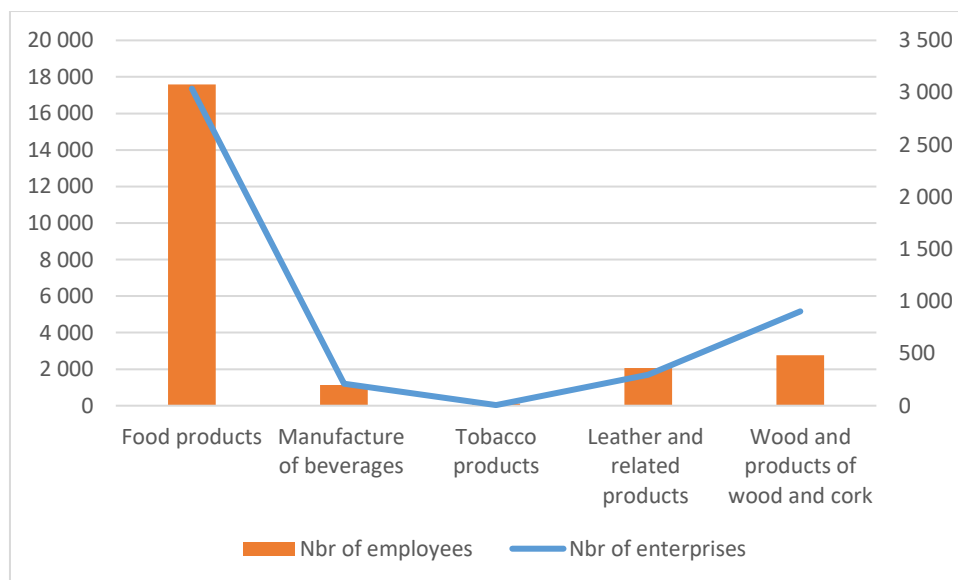
Nevertheless, since 2006, the agricultural sector has witnessed a significant decline in the number of agricultural workers, both women and men, due to restrictions imposed on the sector’s development and its low productivity. In 2006, farm labor represented 16.7% of the total labor force (12.6% for men, 35.1% for women), which fell to 10.4% in 2014, then to 8.7% in 2015 and 6.7% in 2017.<sup>47</sup> The percentage of men employed in this sector was estimated at 7.8% of total male workers in 2015, while 13.1% of total female workers were engaged in agriculture, which indicates the relative importance of the agricultural sector to women. It is worth remembering that most farm workers are not full-time farmers, and that they engage in other non-agricultural activities. Labor has shifted away from agriculture to other sectors such as services, as can be observed on figure 3.

### 1.3.3 The agro-processing sub-sector: size and workforce

While agricultural employment has declined in recent decades, employment in the agribusiness sector is struggling to offset job losses. In 2017, this sector accounted for 23,651 employees, which is less than the agricultural workforce (see next figure). Its development can be stimulated in order to develop exit options from agriculture, for farmers with limited production factors, or as a way to increase their income in the case of part-time farming.

It is important to note that almost 25,000 people work in up to 4,500 companies, which is slightly more than 5.3 employees per company. This average small size of agri-food businesses makes it possible to support their development in order to increase their market shares both domestically and internationally.

Figure 4 : Processing food, feed and timber In Palestine, 2017



<sup>47</sup> PCBS: PCBS, 2012, 2017, and 2018. Labor Force Survey – Annual Reports 2011, 2016, and 2017

### 1.3.4 Agricultural exports

Agricultural products, both animal and plant, make up an important proportion of Palestinian exports, representing a bit less than one fifth of total exports, as can be observed in the following table.<sup>48</sup>

Table 11: Share of Agriculture in Palestinian Exports, 1999-2016

Year	Agricultural Exports	Total Exports	Percentage of Agricultural Exports
2016	170,965	926,499	18.5
2015	171,621	957,811	17.9
2014	142,674	943,717	15.1
2013	168,521	900,618	18.7
2012	119,033	782,369	15.2
2011	95,855	719,589	13.3
2010	76,043	575,513	13.2
2009	58,504	518,355	11.3
2008	61,374	558,446	11.0
2007	78,839	512,979	15.4
2006	46,792	366,709	12.8
2005	50,502	335,443	15.1
2004	53,086	312,688	17.0
2003	48,792	366,709	13.3
2002	40,693	240,867	16.9
2001	47,560	290,349	16.4
2000	103,298	400,857	25.8
1999	79,578	372,184	21.4

Agricultural exports in Palestine are negatively affected by restrictions imposed by the Israeli occupation and by political instability. Furthermore, the siege on the Gaza Strip plays an important role in explaining why agricultural exports from Gaza have remained stagnant. Between 2000 and 2007, farmers in Gaza sold a monthly average of 2,000 tons of fruit and vegetables to Israel, and 680 tons to the West Bank. In contrast, during the subsequent 6 years (from 2008 to 2014), only 2,898 tons of fruit and vegetables exited Gaza, i.e. about 32 tons per month, almost exclusively for international markets.<sup>49</sup> More recent data from FAO (personal communication) indicate an increase in agri-food exports since 2014.

<sup>48</sup> Source: PCBS, International Trade, Various Years

<sup>49</sup> PalTrade, The agricultural sector in Gaza strip. Obstacles to Development. <https://www.paltrade.org/upload/multimedia/admin/2017/09/59af8fe3e487b.pdf>



According to Paltrade reports,<sup>50</sup> the main export market for Palestinian tomatoes currently is Israel, with around \$700,000 of annual exports through 2013-17. For tomatoes, UAE, Kuwait and Qatar are viewed as untapped markets with good potential. Gaza trade improved substantially in 2017/2018.<sup>51</sup>

Exporting Palestinian produce overseas is not easy, for two reasons. The first one is the high cost of production in Palestine: for example, *“the cost of cultivating one dunum of herbs in Palestine is 30%-35% higher than in Israel or Jordan. Also, market prices fall due to competition”*.<sup>52</sup> The second reason is that *“exporters also face obstacles that result in produce spoilage, such as long waiting hours at checkpoints and crossings, or cancellation of shipments by the purchasing party at the last minute”*.<sup>53</sup> Transaction costs are higher, since 30% of the container should be left vacant to allow Israeli inspection. Additionally, when exporting through the Jordan port of Aqaba, one has to add-in the additional cost of transportation from WB to Aqaba, plus the fact that clearance fees in Aqaba are 40% higher than fees in Israeli ports. However, Arabian ships are cheaper than other countries’ ships. Lastly, transaction costs are higher for Palestinians because of lack of economies of scale (export volumes are not huge).

Moreover, the Paris Economic Protocol envisaged that Palestinian trade with other countries continues to be handled through Israeli sea and airports, or through border crossings between the PNA and Jordan, which are also controlled by Israel. Eventually, the Protocol creates constant instability and uncertainty for the Palestinian Treasury; fiscal leakages from a restrictive trade relationship that allows indirect imports through Israel; minimal Palestinian control over their flow of external trade; inconsistencies in the collection of taxes; and customs duties evasion.<sup>54</sup>

Imports provide the bulk of fruit and – to a lesser extent – vegetable supplies, mainly from Israel. This is further highlighted in PCBS statistics for 2017 as outlined in the table below.<sup>55</sup>

**Table 12 : Exports, Imports and Net Trade Balance for Agricultural Commodities (2017)**

Type	Imports		Exports		Net Trade Balance	
	Israel	Other	Israel	Other	Israel	Other
Fruit	133,163	8,343	4,286	31,893	-128,877	+23,549
Vegetables	52,427	12,110	57,644	5,759	+5,217	-6,351

<sup>50</sup> Paltrade, September 2018: ITC Export Potential Map.

<https://www.paltrade.org/upload/multimedia/admin/2018/09/5b98f6289dac9.pdf>

<sup>51</sup> OCHA, 2017. Humanitarian Bulletin Occupied Palestinian territory. November 2017, p.8 and following

<sup>52</sup> Shawki Makhtoob, Trade Policies Manager, PalTrade.

<sup>53</sup> ARIJ, 2015. Palestinian Agricultural Production and Marketing between Reality and Challenges.

<sup>54</sup> UNCTAD, 2014. *Palestinian Fiscal Revenue Leakage to Israel Under the Paris Protocol on Economic Relations*.

<sup>55</sup> PCBS, 2017. Registered foreign trade Statistic – Goods and services, main results.

### 1.3.5 Food security

*“The Israeli occupation is the most important single driver of food and nutrition insecurity. Access restrictions to natural resources and limitations on the movements of people and goods are considered as the root causes of food insecurity in Palestine. These are manifested through so called immediate causes (or secondary root causes) largely driven by lack of access to economic resources whose main factors are poverty, unemployment and the vulnerabilities they create. The locational, economic and socio-cultural drivers of vulnerability often work together to compound their negative impact into tightly intertwined vicious circles that are translated into lack/loss of individual entitlement, primarily economic, that prevents access to food. This is particularly severe for the most vulnerable groups earning their livelihood through labor entitlement, including the youth, women and the disabled.”<sup>56</sup>*

Food security in the Palestinian Territories has a unique feature, as it is linked to the political conflict that negatively impacts livelihoods. Food insecurity come both from *“Limitations on food availability: negative effect on agricultural production and food trade/market supplies, high cost of production inputs, including food dependency on imports”* and *“Insufficient economic access to food: artificially high prices, but also lack of opportunities to secure employment and higher household incomes and unorganized food markets and pricing systems, no control on borders and thus limitations on export procedures”*.<sup>57</sup> Reducing vulnerability to food insecurity occurs either through increasing local agricultural production or enhancing the influx of agricultural imports for food availability, and by reducing poverty for the most vulnerable households. In the Palestinian case, and as a result of the decline in agricultural production, agricultural imports have gained momentum and the import dependency ratio (IDR) has risen from 53% in 2010 to 65% in 2014.<sup>58</sup>

PCBS indicated that 27% of Palestinian households in the West Bank and Gaza Strip own a home garden; which 91% use for farming.<sup>59</sup> This shows that about a quarter of Palestinian households depend on gardens for a significant portion of their food consumption. Moreover, 10% of Palestinian households raise livestock. Garden or livestock products are mostly consumed by the families that produce them, especially given that home-grown gardens are small in area (203 m<sup>2</sup> on average), and the number of animals raised is also quite small.<sup>60</sup>

Home gardens and domestic livestock contribute to meeting family needs, by providing them with agricultural produce. These are not included in agricultural census data and are usually considered to be a secondary source of household income. However, they are critical in improving household consumption and food security.

## 1.4 Market and Value Chain Access

The Palestinian agricultural sector suffers from weak marketing capacities due to a poor organization and coordination between the various stakeholders. These shortcomings have a

---

<sup>56</sup> MAS, 2017. *Strategic Review of Food and Nutrition Security in Palestine*. Page 20

<sup>57</sup> ARIJ, 2015. *Palestinian Household Consumption Trends for Agro-Commodities Study - summary*.

<sup>58</sup> MAS, 2017. *Ibid*. Page 21.

<sup>59</sup> PCBS, 2016. *Family farming survey in 2015: main findings*. Page 15.

<sup>60</sup> *Ibid*. Page 17.

negative effect on farmers' incomes and prevent the achievement of a better level of import substitution.<sup>61</sup>

#### 1.4.1 Central Vegetable Markets

Central vegetable markets play a pivotal role in the marketing of agricultural produce. There are about 12 central vegetables markets in the West Bank, covering all governorates except Jerusalem and Salfit. All of them are managed by local governorate units, either directly like in the markets of Nablus, Al-Bireh, Qalqilya, Hebron and Qabatiyeh, or through a third-party engaged to carry out management and collect fees, as in the case of Betha, Tulkarem, Jenin, Jericho and Halhul. These markets were established in order to provide appropriate services to farmers, traders and intermediaries in the handling of agricultural products, in addition to supplying a steady income to local entrepreneurs.<sup>62</sup>

Services provided by central markets include guarding, cleaning and trade monitoring. Some markets offer refrigeration services to store accumulated products. Most do not have a system for monitoring imported quantities, except for Nablus and Hebron. Fees vary from one market to the other, but do not exceed the ceiling set in the Law for Central Market Systems by the Ministry of Local Government (4% of sold quantities). This excludes the market in Jericho, where NIS 0.6 is charged for every unit traded between merchants and farmers.<sup>63</sup>

Vegetables at central markets are mostly produced locally (82%), the rest being imported from Israel. For fruits, 71% are imported from Israel and 29% are produced locally. With field crops, local production accounts for 49%, whereas 51% is imported from Israel.<sup>64</sup>

The volume of imports varies per central market. Nablus' central market reported 7,290 tons per month, followed by Hebron with 4,650 tons. The lowest volumes are recorded in Qabatiya (4,460 tons) and Al-Bireh (1,000 tons).<sup>65</sup>

In general, between 30-35% of the selling price goes to the farmer, after deducting input costs.<sup>66</sup>

#### 1.4.2 Wholesalers and retailers

A trader's mark-up depends on the role he plays on the transaction. As a broker, his margin (commission) is set to be 10%. If he buys directly from the farm, thus owning the goods, his margin varies depending on the sales channel he decides to use (export, local distribution, central market, etc.).

Since the product may pass through more than one market and more than one medium, the average mark-up for wholesalers typically ranges between 10 and 15% of the consumer price. With regards to costs, these include procurement, municipal/market charges, financing, storage and damages. Retailers (*Points of sale*) margins vary according to source (market, via

---

<sup>61</sup> ARIJ, 2015 *Palestinian Agricultural Production and Marketing between Reality and Challenges*,

<sup>62</sup> Market research conducted by Al Markaz and Solution for development consulting Co.

<sup>63</sup> Ibid

<sup>64</sup> Ibid

<sup>65</sup> ARIJ, March 2015, *Palestinian Agricultural Production and Marketing between Reality and Challenges*.

<sup>66</sup> Market research conducted by Al Markaz and Solution for development consulting Co.

distributor, etc.), location and product variability. Overall, retail rates are about 40% of consumer prices. Costs are calculated based on purchase price, rent, wages of workers in addition to damaged goods, which vary during summer and winter at a rate of 5 to 7%.<sup>67</sup>

### 1.4.3 Pricing Policies

In a survey conducted by ARIJ, an estimated 82% of surveyed farmers base their pricing on supply and demand on the local market; while 16% of them depend on prices agreed with traders (most agreements are verbal). 2% price their products using other methods. The first two methods are also prevalent among those farmers who export their products to international markets. It is worth noting that prices vary among governorates depending on the availability of products in the market. Most surveyed farmers have confirmed this variation and linked it to seasonality and changes in weather conditions. For example, the price of tomatoes is relatively high in the southern governorates in April and May, compared to northern governorates, due to low yields in the south during these months.<sup>68</sup>

Marketing is the main issue faced by small farmers, as reported by almost all informants. As far as marketing challenges are concerned, Al Reef for Agricultural Investment and Marketing (a private shareholding company that exports Palestinian agricultural products to numerous organizations in Europe, USA, Canada, Japan, New Zealand and UAE) mentioned several challenges:<sup>69</sup>

- High cost of inputs, which limits competition and profit margins.
- Poor and untimely technical and marketing services to farmers, including information on markets and their requirements.
- High cost of agricultural loans coupled with the high risk of natural (climatic) disasters and lack of an efficient insurance system.
- High transaction costs. They are usually reported as substantially increasing the cost of export crops and are thus a major constraint to the ability of Palestinians to compete when compared with similar costs in neighboring countries.

---

<sup>67</sup> Ibid

<sup>68</sup> ARIJ, Palestinian Agricultural Production and Marketing between Reality and Challenges, 2015

<sup>69</sup> Interview with the Manager of Al Reef for Agricultural Investment and Marketing, September 2018.

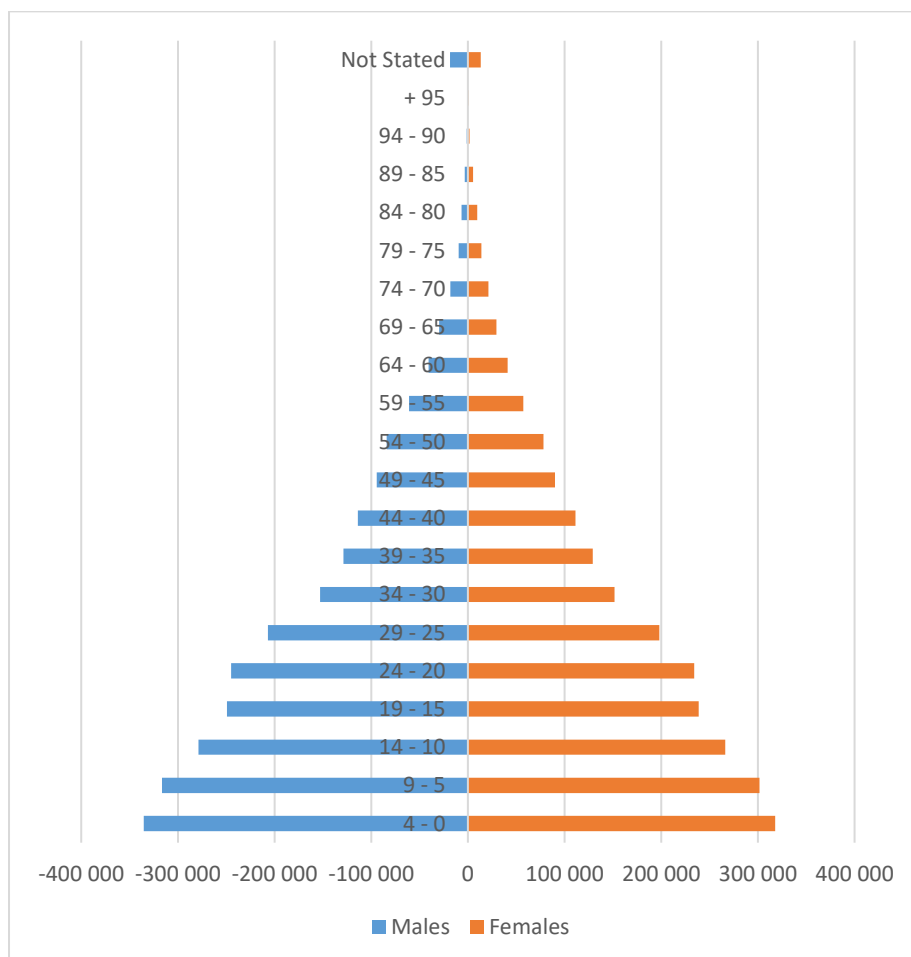
## Part II: Trajectory and Dynamics of Structural Change: Demographic Dynamics and Trends

### 2.1 Demographic trends

#### 2.1.1 Population's age distribution

The main characteristic of the population of Palestine is its youthfulness: almost 50% of the population is under 20 years of age, and only 3.2% of the population is above 65 (See next figure on age structure). This situation is explained by a high fertility rate (2.83 children per woman), and results in a high population growth rate: 1.99%.

Figure 5 : Age structure in Palestine, 2017



Source: Population census, 2017

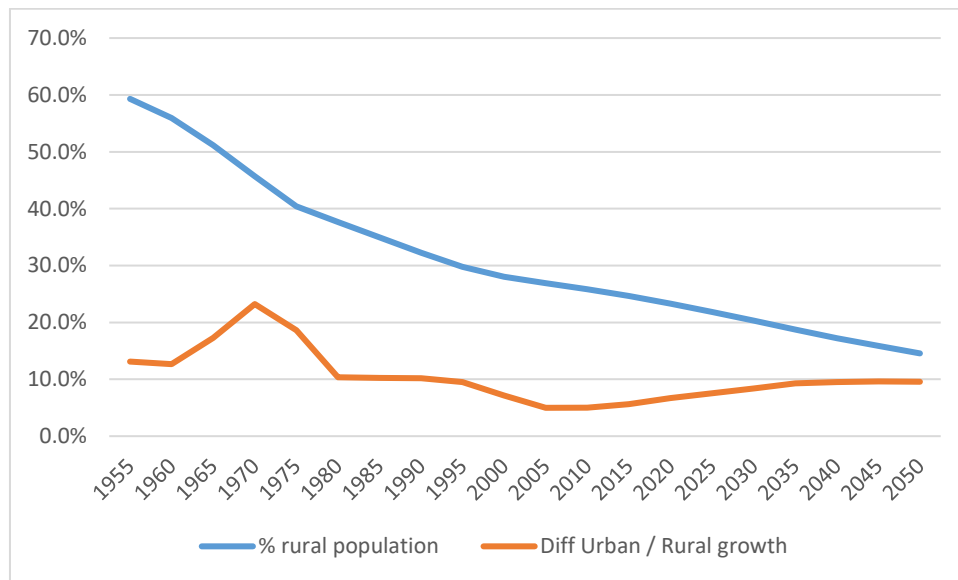
#### 2.1.2 Urban/rural population distribution

The expansion of urbanization and the decline of related economic activities – particularly agricultural production – are global phenomena that have engulfed developing countries. These were dramatically experienced in the Palestinian context, due to the interaction of

three dynamics on several levels: (i) a historical trend towards urbanization;<sup>70</sup> (ii) the impact of international aid/organizations and Palestinian capital investors which tend to favor non-productive investments such as construction, and (iii) Israeli occupation and the related structure of the Palestinian economy.<sup>71</sup> One cannot overlook the key roles of these dynamics in reshaping the urban scene in Occupied Territories.

The historical trend towards urbanization can be illustrated by the figure below. Rural population reduced threefold between 1955 and 2015. This can be explained by the usual rural-urban migration as illustrated by a lower growth rate in rural areas.

Figure 6: Rural population trends, 1955-2050



Source: World Population Prospect, 2018

It is worth noting that the PCBS definition of rural area is rather large: “Any locality whose population is less than 4,000 persons or whose population varies from 4,000 to 9,999 persons but lacks four of the aforementioned elements: public electricity network, public water network, post office, health center with a full-time physician and a school offering a general secondary education certificate”. In Gaza Strip, the population is no longer classified as rural according to the 2017 census. It may appear that concentration in urban areas is the result of massive rural-urban migration. Data from 1997, 2007 and 2017 censuses reveal that rural population halved in 20 years.

Table 13 : Population distribution by type of locality (%)

	2017	2007	1997
Urban	77.1%	73.5%	53.1%
Rural	14.6%	17.1%	31.0%
Camps	8.3%	9.3%	15.9%

<sup>70</sup> Barron (1922) published the results of Population Census, which show that 35 % of the population live in municipalities (cities), 51.5 % in villages and 13.5 in tribal areas.

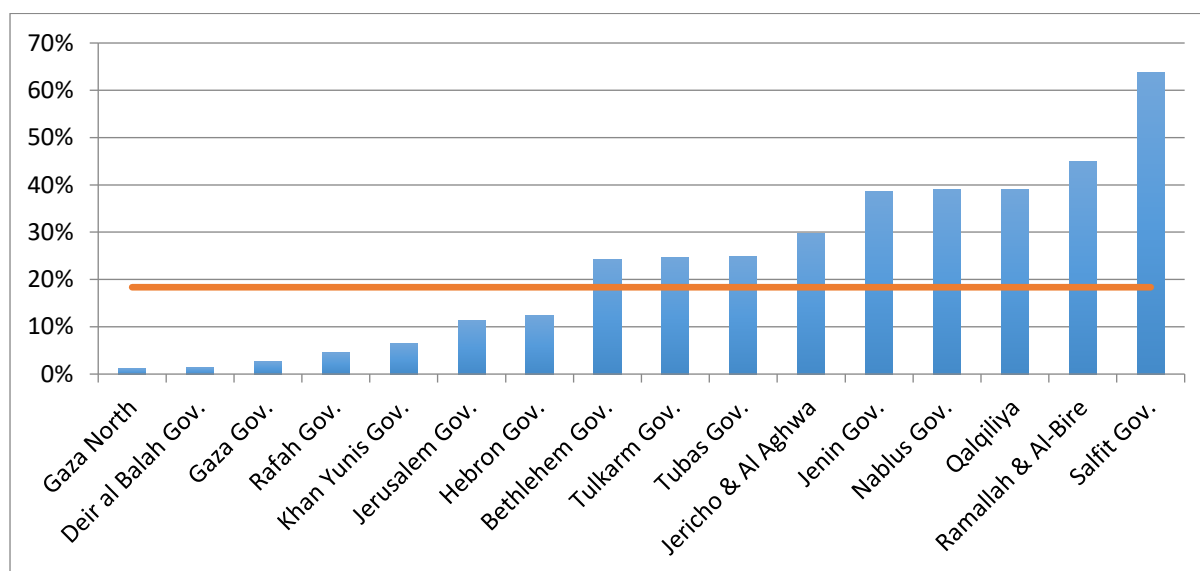
<sup>71</sup> Center for Development Studies, Birzeit University, 2016. *Urbanization and Exclusion as Tools of Transitional Rural Formation: The Cases of Anata and Birzeit*.

<b>Palestine</b>	100.0%	100.0%	100.0%
------------------	--------	--------	--------

It is important to note that the definition of ‘urban’ and ‘rural’ is based on the size of population and the type of local government unit (village council or local council or municipality). Over the past three decades, many localities have shifted from ‘rural’ to ‘urban’ categorization.

This global trend shows local differentiation. The next figure on the 2017 situation by governorate shows clear differences between Gaza and the West Bank, as well as within the latter.

**Figure 7 : Percent of rural population by governorate (PCBS definition)**



Source: PCBS, Population Census 2017

Traditionally, rural labor in the West Bank has been moving towards Israel’s labor market and nearby Israeli settlements which offer higher wages than local markets. Yet, this movement is subject to a permit system and the vagaries of the political situation. When interrupted, Palestinians’ vulnerability increases. This was the case in the WB after the outbreak of the second Intifada. While this is a good source of income when stable, it reduces the availability of skilled labor needed in the Palestinian private sector. Hence, labor migration to Palestinian cities has been limited (maybe except for Ramallah). Furthermore, the development of transportation links, coupled with the proximity of Palestinian communities to each other, has made internal migration unnecessary, giving preference to daily commuting.

### 2.1.3 Farmers distribution by gender

The contribution of women to Palestinian agriculture is significant, yet often invisible and rarely recognized. Palestinian rural women largely perform extensive house chores, factory work, and farm work. Despite this major contribution, an estimated 40% of rural, working-

age Palestinian women<sup>72</sup> are unpaid workers, which means that their work is not captured in the GDP. Moreover, they do not control agricultural revenues, which further marginalizes their role in the production process.

Women employed in agriculture represent an important share of the workforce, accounting for roughly 30% of Palestinian agricultural labor and 13.1% of total female workers. However, gender disparities are rampant in agricultural labor. Besides huge gaps in remuneration, female work in agriculture is characterized by:<sup>73</sup>

- Unpaid labor as family member: 82% of total female agricultural jobs vs. 18.3% of male jobs.
- Casual labor: 48.4% of total female work in agriculture last less than 14 hours a week vs. 31.6% of agricultural male labor.
- Low levels of human capital: low educational attainment among women account for 54% of total female jobs in agriculture compared to 33.3% of male jobs.

It is important therefore for policy makers to empower women who engage in agricultural activities. In this regard, it is key for government, the private sector and civil society to respond to current challenges, particularly those relating to the denial of women's inheritance rights. The next step is to improve extension services devoted to women-based agricultural activities, both quantitatively and qualitatively. Equally important is encouraging female farmers to join agricultural cooperatives and introduce effective procedures to enable them to sell their produce at fair prices, shielding them from profiteering wholesalers. Formal and informal support institutions have a role to play in this regard: the most appropriate first step is to encourage female farmers and expand support to women everywhere and across different types of farming. Furthermore, it is of the utmost importance to hold information sessions – on a regular basis – with female farmers at their workplace, so as to address questions on various social, technical, and economic aspects of farming.<sup>74</sup>

#### 2.1.4 General characteristics of the rural population

The capacity of the Palestinian economy to cope with the size of the population and its age structure – taking into consideration a high fertility rate, rapid population growth, and a young population – is largely dependent on the labor market and employment. Employability and investment in human capital (such as health and education) also play an important role in this process. Given that 60% of the land (Area C), 80% of the water and East Jerusalem (which constitutes 15% of Palestinian (GDP) remain under Israeli control, the Palestinian economy has very limited room for growth. Since the entry into force of Paris Protocol, Palestinian economy is de facto in a unilateral “free” trade agreement with Israel whereby Israel enjoys freedom of movement while Palestine does not. In addition to not controlling its territory (or most of it), Palestine cannot control its economy (no monetary policy is possible and fiscal policy is subject to the transfer of revenues from Israel that collects taxes for Palestine, at a service cost).

---

<sup>72</sup> PCBS, *Labor Force Survey Results, 2000-2007*.

<sup>73</sup> FAO and Al-Markaz, 2011. *Qualitative Study on Women's Participation in Agriculture Work in the West Bank and Gaza Strip*.

<sup>74</sup> MAS, 2016. *Enhancing the Role of Women in the Palestinian Agricultural Sector*.



Poverty remains a constant challenge in the Palestinian context, standing at 29.2%<sup>75</sup> as a result of economic stagnation and the private sector’s inability to generate employment opportunities under political and military constraints; low wages; loss of employment opportunities due to closures; reduced job creation capacity in public and private sectors; restricted access to natural resources; as well as declining and unstable employment opportunities. It is worth noting that there is less poverty in rural areas than in cities and refugee camps, as can be seen on the table<sup>76</sup> below.

**Table 14 : Poverty rate**

Urban	29.4
Rural	18.7
Camp	45.4

The opposite is true for food insecurity (SEFSEC 2018 preliminary data), which can be explained by international transfers through UN Agencies.

## 2.2 Structural Change in the National Economy

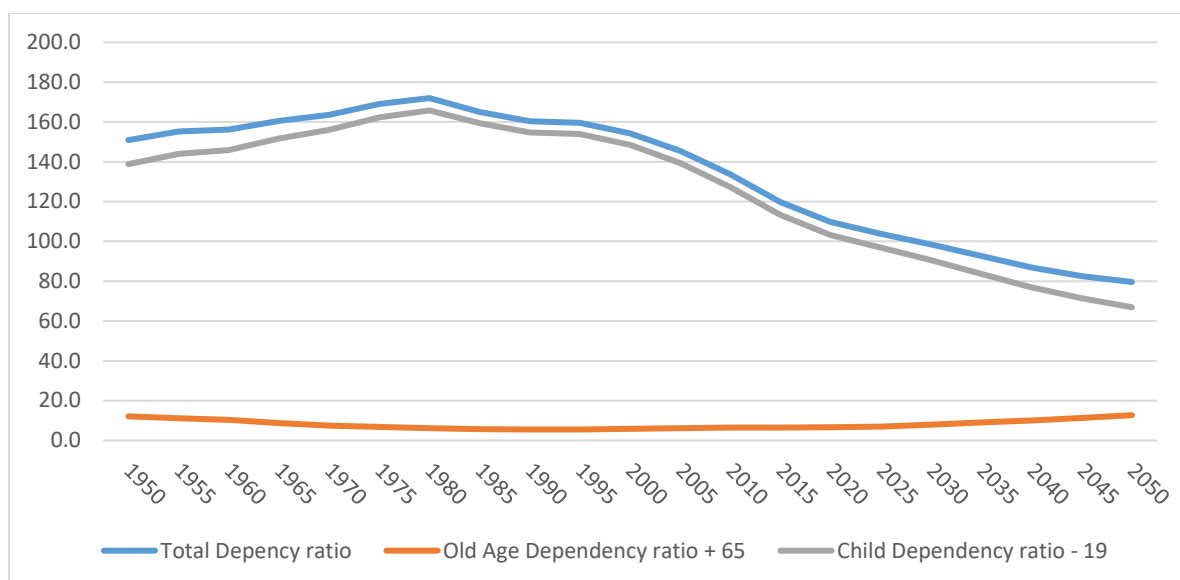
### 2.2.1 Impossible demographic dividend

The youthfulness of the Palestinian population translates from an economic point of view into a very uncertain demographic dividend (See next figure). Demographic dividend refers to a period when the number of non-working-age population dependent on the working-age population is lowest. Figuratively, the scenario is to shift from a phase where the youth account for the majority of non-workers to a phase where non-workers are mostly elderly people. In these two opposite phases, there are about as many non-workers as workers. In between the two periods, the ratio of non-workers to workers falls to around 50/50: this is the period referred to as the demographic dividend. This can maximize growth if unemployment is only structural, since more than half of the population is active. The demographic dividend period may be extended or shortened by anti-birth policies (as in China) or spread over several generations when the birth rate diminishes slowly (as in the case of Palestine).

<sup>75</sup> PCBS *Living Standards in Palestine (Expenditure, Consumption and Poverty), Main Findings 2017*

<sup>76</sup> Ibid.

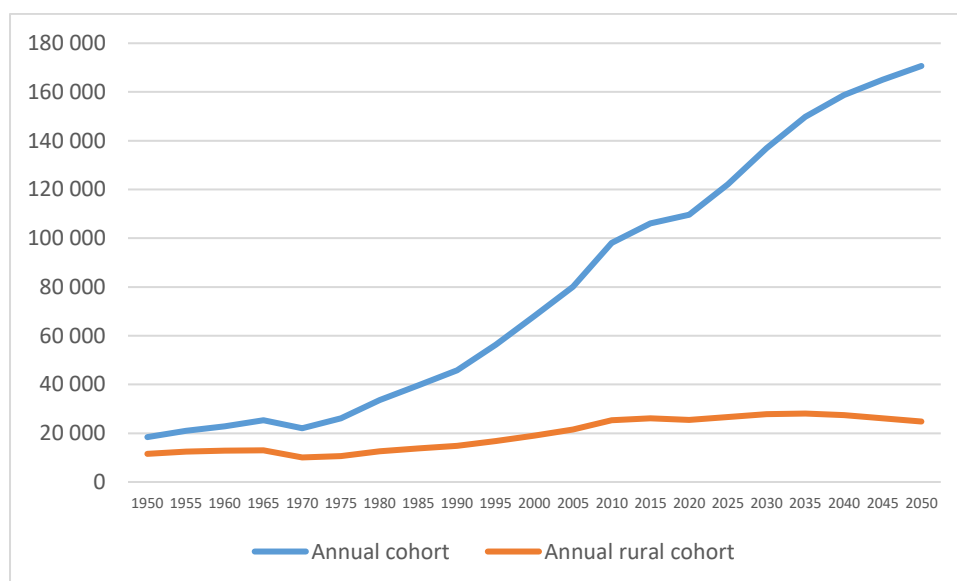
Figure 8 : Impossible demographic dividend



Source: World Population Prospect 2018

The age structure in Palestine means that employment is an issue that will remain central in the coming decades. The working-age population is already large (as the population over 65 is low), but it will increase dramatically over the next few decades. Between 2015 and 2050, 100,000 to 175,000 young people will enter the labor market annually. Around 25,000 of them will come from rural areas. It is imperative to anticipate job creation needs if the already high youth unemployment rate is to decline in the coming decades. The agricultural sector and agri-food industry can contribute to this, provided agricultural and food policies are made more labor-intensive.

Figure 9 : Total and rural annual cohort entering the labor market



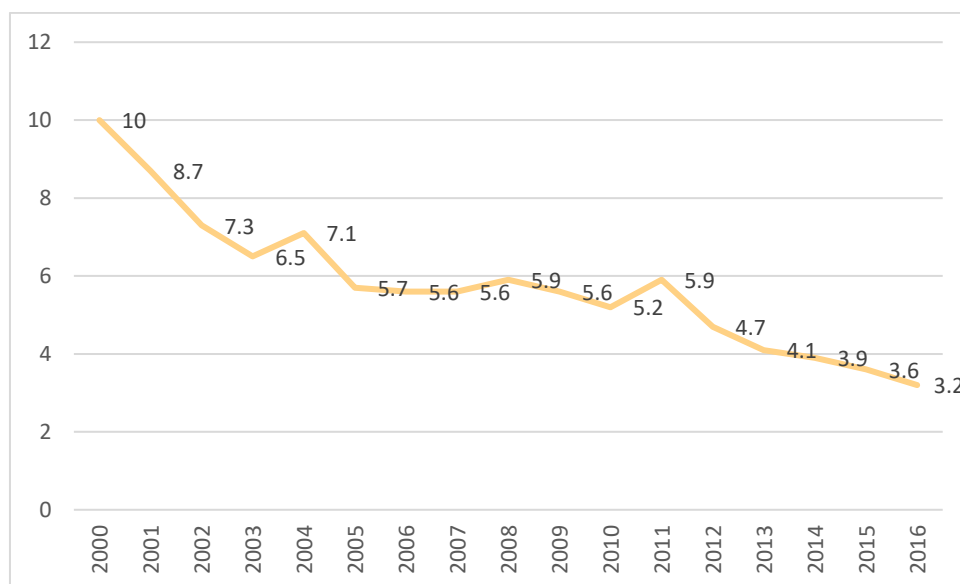
New entrants to the labor market (young people of both genders) seem to find employment opportunities outside the agricultural sector, either because of the sector’s weaknesses and

its low returns or for cultural reasons. It is worth pointing first that agricultural wages are extremely low compared to wages in other sectors, not to mention Israel. Secondly, youth engaging in farming need assets (such as land and technology) that are probably beyond their reach. Young people, especially university graduates, tend to prefer and seek jobs that are not related to agriculture, either in the public and private sectors. However, it is possible to promote agriculture employment by supporting youth startups in this sector.

### 2.2.2 Changes in major sectors' contributions to GDP

The post-Oslo period witnessed a significant decline in the relative importance of the agricultural sector in the Palestinian economy, and a substantial reduction of its size. Official statistics show a significant drop in the contribution of agriculture to GDP, from 10% in 2000 to 3.2% in 2016-17, as outlined in the figure below.<sup>77</sup>

Figure 10 : Agriculture contribution to GDP



While the agricultural sector is declining, other sectors are growing at different pace, especially services and construction. The growth rates of the latter sectors fluctuate with foreign aid, particularly reconstruction assistance following devastation caused by successive Israeli attacks on infrastructure. Moreover, the economic constraints and the restrictions imposed by Israel over the use of natural resources and the movement of goods and people favors non-tradable economic activities.

On the eve of the establishment of the Palestinian National Authority (PNA) in 1992, agriculture's contribution to GDP was 39.5%.<sup>78</sup>

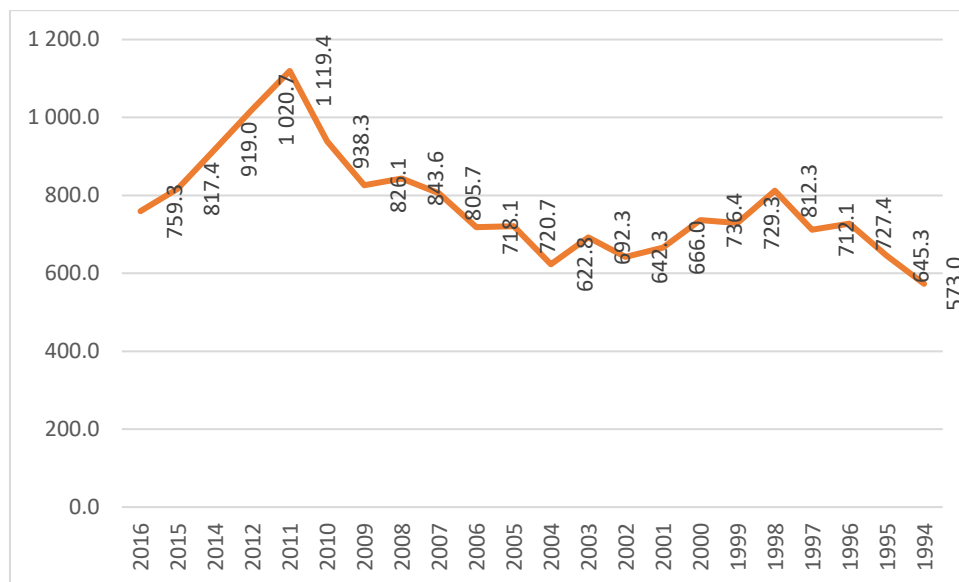
Figure 2 shows a limited increase in agriculture's added-value in the West Bank and Gaza subsequently, between 1994-1998, at 26.4% in current prices.

<sup>77</sup> PCBS. *National Accounts, various years.*

<sup>78</sup> Awadallah Mohammad Ahmad, 2017. *The weakness of Palestinian production sectors and its impact on exports.* Masters' Thesis, Al-Azhar University. Page 70.

The sector then declined by 48.4% until 2006 – the added value of this sector in 2006 was lower than that of 1994 at current prices. The drop in agricultural added-value through 2000-2006 was influenced by the political situation, as all economic sectors receded sharply between 2000 and 2005 due to the second Intifada, Israeli incursions into Palestinian towns, political turbulence and high uncertainty.<sup>79</sup>

Figure 11 : Agricultural Sector Production (West Bank and Gaza) at Current Prices (USD), 1994-2016



The figure above shows that in 2016, at current prices, agricultural production was the same as in 1998. At constant prices, sector production in 2012 was lower than in 1994.<sup>80</sup>

### 2.2.3 Changes in employment distribution between sectors

The number of Palestinians working in agriculture declined by 47.2% between 1995 and 2017, falling from 12.7% of total employment in 1995 to 6.7% in 2017. It is worth mentioning that the highest rate of employment in agriculture was recorded in 2006 (16.7%), due to the political situation, that led to a significant slowdown of all economic sectors and limited work opportunities. Agriculture therefore became the last resort for the unemployed. However, since 2007, there has been a steady decline in the agricultural workforce (those fully employed in agriculture). Since 1994, the decline has been significant.<sup>81</sup>

### 2.2.4 Changes in cropping patterns

The Jordan Valley makes up 55% of the total area of irrigated lands in the West Bank.<sup>82</sup> It accounts for 60% of vegetables produced in the West Bank and all dates harvested in Palestine. Most residents of the Jordan Valley’s rural areas are engaged in agriculture, that is

<sup>79</sup> PCBS, 2014. *National Accounts at current and constant prices, 1994-2016*.

<sup>80</sup> *Ibid*

<sup>81</sup> PCBS, 2018. *National population Census*

<sup>82</sup> This Week in Palestine. *Agriculture in the Palestinian Jordan Valley. Current Reality and Future Prospects* (by Khaled Daoud).

in plant and/or animal production. Farmers own small holdings that do not exceed 5 dunums per family. They mostly produce seasonal vegetables, notably eggplant, cauliflower, zucchini, cabbage and yellow corn. Since these crops are generally not valued on the local market, many farmers try to plant other crops which they deem important, such as dates.

Date trees are currently being planted in the Jordan Valley, mainly in Jericho, on about 18,000 dunums. Total production in 2017 reached 8,000 tons, of which 65% was exported. Product quality complies with highest international standards and is marketed extensively worldwide. The *Medjoul* date is unique in the world and sold at high prices. Given the promising potential of the Palestinian dates' sector, plantation areas are increasing in direct response to market demand.

Most fruit and field crops produced in the West Bank are rain-fed. Olives account for 83% of the area for fruit production, while grapes represent 6.6%. Citrus trees are irrigated, but they account for only 1% of the area for fruit production. Wheat and barley cover 36% and 23% of field-crop areas respectively. Main vegetable crops are tomatoes, cucumbers, eggplant and zucchini, accounting for 78% of total vegetable production (PCBS, 2006). These crops cover 51% of the area planted with vegetables. Vegetable crops and citrus take up 36% of agricultural water usage in the area. Greenhouses are used to cultivate tomatoes and cucumbers.

Around 1,000 dunums are covered with herbs and medicinal plants. Whereas herbs receive little attention on local markets, they are sold fresh on international markets where demand is high. Palestinian herbs are exported to American, European and Russian markets, where such items as green onions, coriander, parsley, mint and thyme are highly prized. Additional products include maramiyya (sage), malsa (lemon balm) and hussalban (rosemary), which are used in the pharmaceuticals industry.<sup>83</sup>

Seedless grapes are a promising sector, since the area on which they are planted can serve a double purpose: grapes can be combined with vegetable plants. In the past, grape crops generally lasted for more than 10 years, during which time they were the only crops planted on the fields. Nowadays, around 2,000 dunums of seedless grapes are distributed throughout the entire Jordan Valley, especially in the areas of Nasariyah and Ain al-Baydah.<sup>84</sup>

Baby cucumbers are the best kind for pickling. This crop is characterized by its small size and the fact that it attracts good prices. Palestinian farmers in the Jordan Valley started to plant this type of cucumber in 2016. Out of a total of 500 dunums planted with cucumbers in the West Bank, 150 dunums in the Jordan Valley are under greenhouses, as required for baby cucumbers.<sup>85</sup>

The Jordan Valley includes more than 1,000 dunums of tomatoes, the main crop for the farmers of Furush Beit Dajan.

---

<sup>83</sup> Ibid

<sup>84</sup> Ibid

<sup>85</sup> Ibid

Until 1983, Palestinians used to produce enough watermelon to export to Jordan and the Gulf region. Later on, however, Israeli melon flooded Palestinian local markets and seedlings started to succumb to disease due to poor soil, leading farmers to abandon this crop. Recently, however, some nurseries have managed to produce seedlings that were grafted with soil-resistant roots. They were planted in the Jordan Valley through a pilot project that has been successful for the past five years. The project produces about 1,000 dunums of watermelon and is a good source of revenue for farmers.

### 2.2.5 Changes in the livestock sector

The livestock sector in Palestine is an important one, contributing up to 46% of total agricultural income. The backbone of this sector is sheep and goats (small ruminants), dairy cattle and poultry. Agriculture is the main livelihood of 25.3% of livestock breeders. In the West Bank and Gaza Strip, there are 972,000 heads of sheep and goats, and 39,000 heads of cattle. The livestock sector's total value-added was USD 332.6 million in 2011. In various locations of the country, livestock is raised as a secondary activity to provide supplementary income to rural households. Hence, the small ruminants' sector is an important source of income for many Palestinian families, as it provides important products to local consumers and creates employment. It is also a sector where women contribute greatly.<sup>86</sup>

In an interview<sup>87</sup> with the Arab Center for Agricultural Development's Executive Manager, Mr. Khalil Khatib mentions that in recent years, the livestock sector in Palestine has been facing severe difficulties in securing necessary production inputs (as most are procured from Israel), and timely technical support. It is worth mentioning that access and climate change weigh heavily on the availability of grazing land that hitherto represented an important source of livestock feed a few months of the year. Moreover, fierce competition from Israeli products (mainly poultry and eggs – a product for which Palestine reached self-sufficiency) often leads to major price fluctuations and subsequent financial losses.

Furthermore, the breeders' households have been adversely affected by the construction of the Separation Wall and the confiscation of land to establish settlements, closed military zones and natural reserves. In addition to these access restrictions, the high cost of imported commercial fodder as an alternative in view of recurrent drought and the outbreak of animal diseases has constrained the development of the livestock sector. Particularly, climate change has had and will have multiple impacts on livestock, from heat stress to livestock diseases and deteriorating feeds' quality and availability.

---

<sup>86</sup> FAO, 2013. *The European Union program in support of agriculture and livestock-based livelihoods in the West Bank and Gaza Strip*.

<sup>87</sup> Interview with ACAD's Executive Manager, Mr. Khalil Khatib, September 2018.

## Part III: Support Policies Targeting Small-scale Family Farms

### 3.1 Historical and Political Background

As indicated in the previous sections of this study, agriculture's contribution to GDP has been shrinking due to political and economic factors, while other sectors - mainly construction and services – have robustly increased since the establishment of the Palestinian National Authority (PNA). However, agriculture has proven to be the most relevant sector for coping with emergencies that ensue from the political situation, showing a notable resilience potential despite the loss of vital assets (such as natural resources, roads, communication...).

So many years after Oslo, Israel still controls Area C, which accounts for more than 63% of the West Bank. Area C includes most agricultural or arable lands, grazing pastures and the main sources of natural water. The Israeli occupation severely restricts investments in this area by turning most of it into state or security zones (forbidden to Palestinians) or through expropriation in a bid to expand colonies. In addition to controlling borders and ports, where Palestinian trade is subject to discriminatory treatment, Israel operates a crippling permits system and imposes import bans on certain products, under a restrictive dual-system.

In the Gaza Strip, despite the “full withdrawal” of Israeli occupation and subsequent return to full Palestinian control, Israel has imposed a security (buffer) zone around the border, covering 58 km<sup>2</sup> or 15.8% of the total area of the Gaza Strip. These areas are inaccessible to Palestinians. Israel also imposes closures that further damage the economic situation in Gaza.

Since 1967, Israel exercises control over most water resources in the Palestinian Territories. As a result, the West Bank and the Gaza Strip suffer from severe water shortages. In Gaza, even the water that is supplied is substandard and not potable.<sup>88</sup>

Israel controls the distribution and marketing of agricultural goods and services, by restricting the movement of people and goods in the Occupied Territories (including between the Gaza Strip and the West Bank) through a combination of physical obstacles, bureaucratic constraints and the designation of areas as restricted or closed. These restrictions impede access to services and resources, limit Palestinian control over natural water resources and increase their dependence on rain-fed agriculture, all in a context of climate change and rainfall variability. In addition, they raise production and transportation costs. Moreover, Israel also controls the supply of most agricultural inputs (fertilizers, seeds, etc.).

Resultantly, the Palestinian agricultural market is – rightly or wrongly – captive of Israel, which dumps cheap products into it.

In addition to Occupation, there are several internal factors that negatively impact Palestinian agriculture, such as the lack of effective and enforceable policies to tackle an inheritance system that leads to land fragmentation, or to slow urban expansion at the expense of agricultural lands.

---

<sup>88</sup> The Israeli Information Center for Human Rights in the Occupied Territories. *Water Crisis*. 11 November 2017.

Furthermore, a significant portion (11.4 %) of small-scale farmers are sharecroppers, obliged to split the yield in two with landlords when inputs are shared. If the landlord provides the inputs, the farmer gets just 30%. Support interventions for small-scale farmers are usually influenced by sharecropping.

It is worth mentioning that in order to provide assistance to poor farmers who sharecrop with their landlords, one needs to be sure that the farmer will continue to cultivate the same land. Otherwise, the farmer could end up losing access to the farmland whenever the landlord decides so: stability is key to improving and intensifying agricultural practices.

Some Palestinian institutions and activists advocate for shifting to organic agriculture, by using local non-hybrid seeds, local or green fertilizers and local medicinal plants. This self-reliant production strategy is intended to attract and secure local investments, as farmers will produce agricultural supplies locally within the same cycle of production and consumption, thus reaching a reasonable level of self-sufficiency, independence and food security at the national level.<sup>89</sup> Unfortunately, this approach has not been adopted by influential stakeholders, and only applies to very small-scale initiatives.

### **3.2 Public policy and Legal Framework: What Impact on SSA/FF and what Perception?**

MoA is viewed as the main legal entity responsible for all aspects of agriculture covering both the plant and animal subsectors. In addition, MoA oversees development projects implemented by NGOs. Its role includes developing the laws, regulations, policies and performance improvement plans for the sector, coordinating with partners, mainstreaming aid, providing technical/extension services to farmers/herders and supervising projects implemented by local/international agencies.

It is in this context that MoA prepared the National Agriculture Sector Strategy and objectives. However, despite stated policies, there are still some gaps between planning and actual implementation. Reason why the agricultural sector remains plagued with deficient and dysfunctional policies that need to be addressed by all local stakeholders, especially MoA, the FAO and other international agencies, as well as NGOs and farming organizations. It is worth mentioning the meagre public budget allocated for sector strategies, which limits MoA capacity to implement its own strategy.

The following section depicts the main agricultural policies and legal challenges faced by farmers, based on interviews, focus group discussions and workshops.<sup>90</sup> Policy failures were identified in the following areas:

#### **3.2.1 Regulatory framework**

Interviews and focus group discussions revealed that the local agriculture market lacks a legal system or mechanisms to prevent the dumping of Israeli products, which was highlighted as

---

<sup>89</sup> This Week in Palestine. *Organic Agriculture - A Key to Food Security*. Issue No. 145, May 2010.

<sup>90</sup> See the general introduction for the methods used.



a major challenge. The PA does not have full control over its borders or even the entrances to major cities. Thanks to highly supportive taxation policies and subsidies enjoyed by Israeli farmers and settlers, their produce is offered at competitive prices. At the same time, the PA does not apply a control mechanism to prevent the free entry and distribution of Israeli commodities.

Farmers believe that the PA should enforce at least two measures to protect local farmers: control of the main entries to Palestinian cities; and certification of vegetables and fruits. Currently, the PA certifies animal products only. However, even in this sub-sector, official bodies are unable to control certification or the illegal smuggling of agricultural commodities. Other cases recalled by farmers included the smuggling of poor quality and counterfeit farm inputs, and counterfeit olive oil.

An Agriculture Law was enacted in 2003, with further amendments passed in 2005. Article (3) of this Law provides for the establishment of a natural disaster compensation fund, an agricultural lending bank, a gene bank and central laboratories.

In order to reduce the fragmentation of agricultural lands, Article (12) of the Law stipulates that no action may be taken on the structural division of agricultural land less than five dunums in size, irrespective of owners' wishes. Article (11) of the Law further limits construction areas to 180 m<sup>2</sup> on any land parcel that is less than 2500 m<sup>2</sup>, in order to try to control urban extension to farmlands.

However, these provisions are still to be applied in practice. The study shows that policies and regulations are not sufficiently enforced. Some laws and regulations need to be reformed, while others need to be further developed.

### **3.2.2 Policy and Market Failures**

#### *i. Structure of vegetables' central markets*

According to prevailing customs and laws in the field of agricultural marketing, there are approved brokers and measurement methods that determine the prices, terms of sale and quality control methods. Traders and brokers play a pivotal role in defining and imposing the terms of trade.

In terms of sales and marketing, wholesale markets for vegetables and fruits are governed by Law No. (3) of 1998, and Articles (2) and (15/A) of the Palestinian Local Authorities Law No. (1). These set the standards for the sale or trade of fruits and vegetables at central markets operated by local government units specifically. They also specify market operating mechanisms, and the powers of local authorities in this regard. Local authorities typically appoint a coordinator for the Central Fruit and Vegetables Market, who is an employee of the relevant municipality and works with an integrated monitoring team to perform registration, fees collection and audit duties. The local authority receives a percentage of wholesalers' revenues and rental fees from retailers who run stalls at the central market. Local authorities do not interfere in the relationship between traders and farmers or in determining the price

of vegetables and fruits. Traders often deduct 10% of the price of products, which is shared as follows: 6-7% for the trader himself and 3-4% for the local authority.<sup>91</sup>

In the case of Israeli products, traders at central markets obtain products from other merchants or from Israeli marketing companies.

## *ii. Marketing support and policy constraints*

The Marketing Department of the Ministry of Agriculture indicated that they work to protect national products, provide economic and marketing information to investors and producers, and make recommendations for the development of export crops.

Marketing is a major problem with significant impact on farm businesses and small-scale farmers' income. Local farmers have no – or very limited – access to updated marketing data. Currently, they obtain market information through word-of-mouth channels (mainly from other farmers or middlemen). This adversely affects the whole range of operations, from production to marketing and financing. Because of the lack of marketing data, most farmers often cultivate few traditional crops they are certain to sell, without looking at market trends, requirements and opportunities. Furthermore, marketing infrastructure is limited, as it requires high capital investment relative to size. Small-scale individual farms are financially weak, unable to invest in the development of a marketing infrastructure that includes cold storage, post-harvest facilities (e.g. canning and packaging) and refrigerated vehicles equipped to transport perishable agro-commodities to distant markets. Nevertheless, farmers and experts participating in focus groups and interviews mentioned the dire need for such infrastructure and to collectively developing it, if provided technical and financial support.

Regarding access to international markets, unorganized small-scale farmers can hardly be expected to export their products without intermediaries. For example, some farmers complained about the high commissions charged by local merchants who deliver farm products to the Israeli market. It should be noted that relations between local intermediaries and their Israeli counterparts are largely unofficial (i.e. not bound by contracts), thus increasing the risks for Palestinian merchants and creating uncertainty for farmers. Additionally, farmers indicated that they face difficulties in establishing B2B relations with local agro-exporters. Interviewed farmers confirmed the need for public policies to support access (know-how and physical access) to international markets such as the Gulf region, EU countries and Eastern Europe. All these show a high potential to absorb Palestinian agricultural commodities. Moreover, market certification and quality requirements remain a grey area, where farmers and consumers do not have access to reliable information. In this regard, Paltrade – a specialized export organization – could be engaged, as Paltrade has the experience, links, capacity, knowledge and programs to support the export of Palestinian products to international markets.

---

<sup>91</sup> This summary was based on an agricultural market research conducted by Al Markaz Co. with Solutions for Development Consulting Co.

### *iii. Weak role of farmer cooperatives/associations*

Despite policies to regulate cooperative societies and encourage them to collectively tackle the obstacles and challenges facing small farmers, only a few cooperatives can claim some success. Most agricultural cooperatives are underdeveloped, and farmers are skeptical about their role, citing several reasons for their failure. First, farmers recognize that they themselves lack the skills required to manage cooperatives. They especially felt incapable of running the marketing components (setting prices, finding appropriate supply/distribution channels, handling negotiations, contracting, dealing with delivery and export requirements, etc.). Secondly, the concept of collaborative and collective work is not well-rooted among these cooperatives; extensive efforts should be made to build a culture of cooperation and get farmers to appreciate the cooperative value system. This is more important than technical and managerial know-how. Finally, most farmers would find it difficult to raise the financial resources needed to establish a cooperative infrastructure.

### *iv. Lack of effective market policies for inputs*

Many interviewed farmers, cooperatives and NGOs confirmed that they very often procure poor quality and counterfeit farming inputs, including fertilizers, pesticides and other chemicals. The quality of these inputs is unknown until they are applied on farms. Poor quality inputs have severe effects on farm productivity, yield quality and profits. Farmers indicated that such inputs enter local markets mostly illegally, while some traders smuggle them via Israeli settlements. Moreover, local traders occasionally sell expired chemicals and vaccines, taking advantage of farmers' limited knowledge. Finally, the quality of numerous local and imported packaging materials is unsatisfactory; farmers blame the relevant official bodies (mainly MoA) for this problem.

Some interviewed farmers and cooperatives indicated that the local market is not adequately regulated, for regulatory bodies are unable to control the flow of fraudulent and poor-quality farm inputs into the Palestinian agro-market. Furthermore, until now, MoA has not resolved the issue of officially importing agriculture chemicals with Israeli authorities. Since the beginning of the second Intifada, the entry of some types of fertilizers and chemicals to Palestine is prohibited by Israeli Authorities, allegedly for security reasons.

Soaring input prices are a major problem facing local farmers. Focus groups participants stressed that the local market for inputs is monopolized by big traders who dictate their prices and terms of payment. This usually leads to high input prices. At the same time, the prices of agriculture products have remained stable over time, which has a serious negative impact on farm businesses. Furthermore, inputs traders use the trick of selling on credit at the beginning of the agricultural season: with debt accumulating when sales are low (not unusual with small farms), farmers are caught in this financial trap and are obliged to continue buying inputs from their creditors.

Farmers and other stakeholders indicated that up until now, government bodies have been somewhat slow in tackling these issues. No attempt has been made to establish new trading firms for agro-inputs. Neither has MoA moved towards countering input monopolies. However, farmers themselves are not sufficiently prepared to follow a collective procurement

mechanism that would significantly increase their negotiating power (as of now, such a collective procurement mechanism has not been adopted by the majority of cooperatives, who should logically advance this issue).

*v. Water resources and deteriorating water quality*

The issue of limited water resources and limited access to water is one of the key constraints to be addressed in support of small farms. This was highlighted as critical to the survival of the entire Palestinian agricultural sector. Access to water resources is becoming increasingly difficult, with the Separation Wall and other barriers in place, as well as continued settlement expansion. Obtaining extra water from wells is another key problem facing farmers, as most wells are old and need rehabilitation and development. Most farmers are constrained by the high price and limited availability of water. Farmers are not allowed to dig new wells, and ground water-wells cannot exceed 100 m in depth.

High levels of water salinity – especially in Gaza – result mainly in clogging drip irrigation systems, in addition to limiting opportunities for crop diversification or rotation. Furthermore, some conduit systems and on-farm irrigation networks are old, deteriorated and ineffective, contributing to the loss of significant amounts of water.

*vi. Ineffective agricultural extension and support policies*

Farmers complained that MoA extension staff rarely visited their farms, and when they did, they only provided very general information. In their opinion, MoA staff do not contribute effectively to technology transfer, diversification of crops patterns and adoption of modern agricultural techniques. Others noted that vaccination and artificial insemination programs are inadequate. For instance, they raised concerns about the insufficient quantity of imported vaccines and their low quality, typically attributed to poor storing and transportation conditions.

The number of agricultural extension workers reached 218 across all the Palestinian Territories: 160 of them in the West Bank, the majority operating in the northern West Bank.

The Agronomists and Vets Associations may be enlisted to enhance the role of non-governmental efforts in delivering extension services where these services were diagnosed as weak and deficient. Most available extension services are offered by MoA, although most farmers indicate that they need to be improved. The skills of extension workers need to be upgraded through training. Laboratories and transport facilities should also be made available to support the work of extension officers. Moreover, extension services should focus on the introduction of new technologies. The Agronomists and Vets Association is best placed in this regard.

Veterinary services are provided largely by MoA, which includes free animal vaccination against foot-and-mouth disease and brucellosis. Fees are charged for vaccination against other diseases and for the provision of clinical and laboratory diagnosis services. In addition, veterinary services are generally provided free of charge by MoA, including animal disease control programs, eradication of major diseases (e.g. bird pathogenicity influenza),

slaughterhouse monitoring. MoA protects the general health of consumers through by monitoring the safety of animal products and tracking livestock via a national identification program.

#### *vii. Agricultural/rural financing*

The agricultural sector is the least beneficiary of banking services in Palestine, compared to other economic sectors. Many informants indicated that lending to this sector did not reach even 1% of total bank loans across all economic sectors. This sector does not receive enough support from institutions lending to small- or micro-enterprises: access to such support has not increased more than 11% in the past twenty years.<sup>92</sup> The number of institutions engaged in lending to small- and micro-enterprises is estimated at 10, of which only one focuses on agriculture (Al Reef Company).

Although studies confirm the need for support and lending in this sector, 95% of farmers (irrigated agriculture) confirmed that they have not been receiving any loans. While about 23% of them reported that they did not need loans, other reasons included high interest rates (12-24%) charged by lending institutions, inability to provide required collaterals or fear of being unable to repay the loan later. 20% reported religious reasons.<sup>93</sup> Hence, farmers are most likely to be financed by debt from the most common sources: traders in agricultural inputs; traders in farm produce, in exchange for their production; as well as landlords in case of sharecropping.

In 2015, the Palestinian government established the Palestinian Agricultural Credit Institution (PACI) to help Palestinian farmers and agricultural companies to secure loans in order to establish/develop gainful agricultural projects. PACI also plans to support agricultural production and inputs projects that are in line with the sector development strategy. It will become operational early 2019 as indicated by its director of policies and planning.<sup>94</sup>

#### *viii. Agricultural insurance*

In 2003, Agriculture Law No. (2) was enacted. Article (2) of this Law provides for the establishment of a natural disaster compensation fund, an agricultural lending bank, a gene bank and central laboratories. So far, the insurance system is still in its design phase, and an international expert in agricultural insurance was recruited. The cost of this consultancy was funded by the European Union to develop a road map for the establishment of the agricultural insurance system.<sup>95</sup>

The government set up the Palestinian Agriculture Disaster Risk Reduction and Insurance Fund (PADRRIF) as a specialized body charged with managing the risks that may hinder agricultural development in Palestine.

---

<sup>92</sup> MAS, 2008.

<sup>93</sup> MAS, 2008.

<sup>94</sup> Riyad Al Shahed, Director of Policies and Planning Dept., PACI.

<sup>95</sup> Mohammad Yousif Masri, General Manager of the Agricultural Compensation and Insurance Fund

The reluctance of insurance companies operating in Palestine to provide agricultural insurance has contributed to marginalizing this sector, deterring insurance providers (banks) and investors from playing an active role in it.

#### *ix. Land fragmentation*

In order to reduce the fragmentation of agricultural lands, the Agriculture Law (2003) stipulates that no action may be taken on the structural division of lands for holdings that are less than 5 dunums in size, despite the wishes of landowners. The law set limitations on constructions on agricultural lands. However, the structural fragmentation of agricultural landholdings in Palestine is social in nature – mainly due to inheritance patterns where farmers tend to hand over to their children land of similar quality and size. Economic gains are another major reason, mainly because of the perception that agriculture is no longer a good source of income for the farmer. In such case, and because of the high monetary value of land, some of the landowners prefer to sell their holdings. A second reason is the relatively high cost of agricultural production, which sometimes plays a key role in obliging farmers to sell part of their land to be able to finance the remaining part. In addition, many farmers leave their villages to seek gainful employment opportunities elsewhere. This has led some of them to abandon their lands, and in many cases, to sell all or part of same.

Third come natural causes, with dry conditions in the past ten years contributing to accelerate the fragmentation of agricultural landholdings. Finally, land fragmentation can be explained by the increasing pressure of population growth and regulatory schemes, which led to some lands being reclaimed, thereby contributing to further fragmenting agricultural holdings.<sup>96</sup>

#### *x. National strategies in support of small-scale farmers and agriculture in general*

Both governmental and non-governmental agricultural organizations develop strategic plans in favor of farmers and the agricultural sector overall. These strategies focus on promoting sustainable agricultural development, while contributing to national food security and economic development. Their content reflects strong and clear linkages with the National Policy Agenda and commitments of the State of Palestine at the international level, including the Sustainable Development Goals (SDGs).

Other sub-sector strategies have been developed: the olive oil strategy, the grapes strategy and the agricultural extension strategy (PNAES) which details relevant, up-to-date and effective extension services designed to attain higher productivity and increased incomes, helping to cement the bond of Palestinians with their land.

---

<sup>96</sup> MAS, 2013. Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder farmers.

The livestock sector strategy for 2015-19 states that its aim is to achieve a sustainable and productive livestock sector that is competitive both locally and externally, while enhancing food security in Palestine, promoting the resilience of Palestinian breeders and supporting economic growth. There are numerous other strategic documents. Moreover, cooperatives and NGOs typically develop their own strategies.

The revision of a sample of various strategies, coupled with discussions with different stakeholders, revealed that these strategies are not necessarily implemented or may be partially implemented and evaluated. They do not constitute a binding blueprint for these organizations since they were mostly developed as donations and used as fundraising tools.

### **3.3 Case Studies**

This section presents some cases that highlight existing opportunities for pooling and utilizing resources in an integrated manner. This can help move from the currently fragmented and shortsighted development support to include the latter into mainstream policies, resulting in impactful support programs and policies.

#### **3.3.1 Case 1: Strong Agricultural NGOs**

Palestinian non-governmental agricultural organizations are well-established and manage million dollars annually. They provide a wide range of services including increasing the cultivated area through land reclamation and rehabilitation projects; water harvesting projects; rehabilitation of springs and wells; developing innovative cultivation methods suitable for the Palestinian environment; developing expertise in seed improvement and farm management; and marketing services. Additional activities cover livestock development, olive oil promotion, capacity-building for cooperatives, agricultural skills' transfer and technical support programs related to seedlings' distribution, pesticide usage and fertilization.

Such organizations working in agricultural development focus on the regulation of the agricultural sector, by targeting and defending the rights of farmers through building local committees and defending their interests. They consider themselves to be representatives of the sector and protectors of its resilience and growth (such as when they took up the issue of tax exemptions for farmers or provided key assistance to farmers in the face of occupation measures and land confiscation). It is important, therefore, not to downplay the importance of their work and their priorities. UAWC and PARC have significant experience in leading NGO coalitions in large projects related to land rehabilitation, water resources, agricultural roads and others.

#### **3.3.2 Case 2: Agricultural Cooperative for Investment and Development, Salfit District**

Established in 2004, the Agricultural Cooperative for Investment and Development (PAID) currently has 355 members, including about 40% of women. Membership is open to any farmer in the Salfit District who is over 23 years of age. The cooperative has a written mission statement, with ambitious objectives. It has an elected board of seven members whose qualifications and experience – along with General Assembly members – significantly

contribute to articulating its clear objectives and demonstrated achievements. According to its bylaws, elections are held every 3 years.

The most prominent achievement of the Cooperative is the establishment of Al-Zaytoon Co. with an initial capital of JD 500,000 (\$705,000). Al-Zaytoon Co. operates a modern olive-oil press line (capacity of 3 tons/hour) with a filtering and bottling component.

The cooperative has launched the Agricultural Development and Investment Coalition which includes 13 cooperatives spread across all West Bank regions. The aim of this Coalition is to work together to market agricultural produce, open to foreign markets, strengthen the technical/production capacity of member cooperatives and enhance rural women's participation.

### 3.3.3 Case 3: Canaan Palestine, Canaan Fair Trade

Canaan Palestine is a private sector company which engages farmers across the supply chain to market their products and facilitate the purchasing process. The company purchases quantities of olive oil, almonds, wheat, dried tomatoes, thyme (za'tar), sesame, varieties of hot pepper, basil, garlic and other agricultural products from 1,700 small farmers spread across 52 villages.

Then it goes on to export such produce in barrels or drums, namely:

- Different flavors of olive oil (600-700 tons annually to Europe and America)
- Almonds: Demand is constantly increasing (20 tons annually 5 years ago, currently 200 tons per year).
- Freekeh<sup>97</sup>: between 40-45 tons, with an annual increase of 2 tons
- Ground thyme (za'tar): About 7 tons are exported each year
- Maftool (cuscus): 20 tons exported per year.

To ensure quality, Canaan trains farmers in quality assurance, organic farming and fair-trade requirements for them to qualify across the whole supply chain. Monitoring is conducted on the fields to ensure farmers' compliance with quality standards.

Applying fair-trade principles, Canaan pays fair prices for the produce they purchase, which exceed market prices by at least 10% (premium price). As part of its social responsibility towards developing its community of producers, it provides collective tools, repairs schools, distributes heaters and paves yards. Canaan has granted 42 scholarships to farmers' children, whereby the company transfers tuition fees directly to universities. Priorities are decided by consensus and after reviewing proposals that contain a statement of the community's needs.

The distribution of social support is based on quantities purchased from each village. Canaan allocates NIS 0.4 per 1 kg of purchased produce to social support programs. For example, the Company purchased 10 tons of oil from local farmers of Anin village, which received NIS 4,000 in turn for community development projects. The Company bears the costs of transporting

---

<sup>97</sup> Freekeh is a local product made of fresh wheat harvested before it matures. It is used to cook soups primarily.



the produce from the farms to its factory. Payment is due within two weeks of the date of purchase. Canaan also distributes seedlings and manages a small interest-free loan program.

For the future, the company seeks to increase the number of farmers in its network, in order to market larger quantities. It wants to reach new villages, especially olive farmers and olive oil producers.

Canaan wants to introduce freekeh to foreign markets, as it is not known on Western markets. Local wheat varieties have been evaluated,<sup>98</sup> and some appear to be better than Israeli varieties. Farmers rely on the Company to purchase excellent quality wheat seeds. Palestinian seed varieties are of high quality and nutritional value. Production is increasing, and the Company has invested in an Agricultural Research Center. With the cooperation of SGS German laboratories, the Company can test Palestinian types of wheat. Sales of freekeh have increased and farmers intend to extend wheat farming, given that its value has increased compared to market price (while wheat costs NIS 1.5/kg in the market, Canaan purchases it from the farmer at NIS 2.5/kg). Three years ago, the area of land planted with wheat by five farmers linked to the Company was 50 dunums – it has now reached 400 dunums with 13 farmers engaged in organic wheat farming.<sup>99</sup>

#### 3.3.4 Case 4: Olive oil is the most important asset for Palestinian households

Olive trees are considered a symbol of nationality. Economically, olives are one of the most important agricultural products in Palestine. It has been estimated that olive groves account for 83% of the fruit production area, 47% of all cultivated land (including vegetables and field crops) in the West Bank, with 7.8 million fruit-bearing olive trees in 2011. Total annual production (high/good season) is 25-30 thousand tons, with an estimated gross value of \$240 million (olive harvesting takes place during the three months of October, November and December).

Furthermore, the Jenin governorate ranks first in terms of total production of olive oil. Its production accounts for 29% of total production in the West Bank. More than 100,000 households rely – fully or partially – on olives for their primary income.<sup>100</sup> Total production in a good year may exceed 25,000-30,000 tons of olive oil. Out of this amount, about 18,000 tons are consumed locally, and the remaining 4,500 to 6,000 tons exported to regional or international markets.

A market study<sup>101</sup> showed that the total traded volume of olive oil is estimated at 15,543 tons, with an approximate retail value of \$103.7 million (at retail prices), accounting for 70.6% of the total volume of olive oil produced in Palestine. The remaining 29.4% is either consumed by farmers' households or relatives who receive oil as gifts. Palestinian olive oil is of high

---

<sup>98</sup> Ahmad Abu Farha | Director of Canaan Co.

<sup>99</sup> Ibid

<sup>100</sup> Lodolini, E.M.; Ali, S.; Mutawea, M.; Qutub, M.; Arabasi, T.; Pierini, F.; Neri, D., 2014. *Complementary irrigation for sustainable production in olive groves in Palestine*. Agricultural Water Management. 134: 104–109.

doi:10.1016/j.agwat.2013.12.006. ISSN 0378-3774.

<sup>101</sup> UAWC, 2014. *Olive Oil Market Assessment*.

quality, as farmers rarely use chemicals or fertilizers. Almost all Palestinian olive oil can be certified as organic.

### 3.3.5 Case 5: Qalqilya has high value products<sup>102</sup>

Qalqilya is a small district located in the north-west of the West Bank. It has fertile land, enough water resources and suitable weather conditions to cultivate special types of fruits which are highly prized on the local and export markets. It cultivate guavas (15% of the district production, at a rate of 2 tons per dunum and an average of 60 trees per dunum); avocados (20% of the district's production; 2 tons per dunam: the older the tree, the more productive it is, and this can last more than 10 years); olive (50%); and vegetables (15%) in addition to thyme which is widespread in the villages of Bait Amin and Azzun Atmeh (estimated area of 3000 dunums planted with thyme).

Guavas and avocado are profitable, although avocado is more profitable since it can be marketed over longer periods of time. The farmland of this district has diminished because of the Separation Wall, and urban expansion poses a major threat to the most profitable cultivated areas.

---

<sup>102</sup> Source: FG discussions.

## Part IV: Mapping of local NGOs in the agriculture sector – FAO's Implementation Partners

### 4.1. Mapping of majors NGOs and of their main collaborations

Section 1.5 of the report presents briefly the institutional and organizational landscape of the agricultural sector, while part III provides information on the perception some of these organizations have on the public policy framework and how it is enforced.

This section focuses on NGOs, and more specifically on the seven ones that dominate the sector<sup>103</sup> and that seem to symbolize the type of interventions and possible future orientations at field level. It starts with a historical background and goes on to review their role and functions in the agricultural sector landscape.

#### 4.1.1. Role and functions of the major agricultural NGOs

***Agricultural Development Association (PARC):*** Established in 1983, PARC is a leading Palestinian non-profit, non-governmental organization involved in agricultural/rural development and women's empowerment. Since its inception, it has implemented programs to improve and increase agricultural lands; enhance food security and infrastructure; provide extension services; share experiences and expertise; develop or manage water resources; promote agricultural manufacturing and marketing. PARC organizes farmers in cooperative associations (registration, income-generating projects, capacity building). Through advocacy and lobbying, PARC supports the legal environment for farmers (agricultural insurance, risk compensation, agricultural lending). PARC always includes beneficiaries in needs' assessments. Moreover, PARC helps Palestinian experts to further develop their qualifications. PARC has two head-offices – one in Ramallah and another in Gaza. It has branch offices disseminated across the main regions of the West Bank and Gaza strip. All these offices are well-equipped and enable the organization to implement programs anywhere in Palestine.

***Applied Research Institute – Jerusalem (ARIJ):*** Founded in 1990, ARIJ is a non-profit organization dedicated to promoting sustainable development in the Occupied Palestinian Territories, while encouraging the Palestinian people to achieve self-reliance through greater control over their natural resources. As a national research institute, ARIJ works to augment the local stock of scientific and technical knowledge through research and studies. It works to introduce and devise more efficient methods of resource utilization and conservation, improved practices, marketing and appropriate technology. ARIJ develops position papers and policy strategies on issues such as land and water resources. In addition, ARIJ is experienced in project implementation in the fields of livestock, rural/social development, natural resource management, water management, sustainable agriculture, and the political dynamics of development. ARIJ plays an active role in local communities as an advocate for greater co-operation among local institutions, as well as with international and non-governmental organizations.

---

<sup>103</sup> The 7 NGOs are presented in alphabetical order.

***Economic and Social Development Center (ESDC):*** A legal, independent Palestinian NGO established in 2003, ESDC works on the social economy field across three offices: the main office in Ramallah and two others in Tubas and Gaza. It is part of a consortium for land rehabilitation with programs in favor support of farmers. This includes the cucumbers' value chain; small projects in renewable energy; a project in solid waste recycling; a savings and loans program. The Center aims to improve the livelihoods of Palestinian local communities. It engages on cooperatives development and support to vulnerable groups, including women and youth.

***Land Research Center (LRC):*** Independent, non-governmental Palestinian organization whose activities cover areas of the West Bank (including East Jerusalem) and the Gaza Strip. It was established in 1986 as a branch of the Arab Studies Society, headed by the late Faisal Hussaini. Its main objectives are to protect and develop Palestinian lands and agriculture, while defending human rights. This is performed through upholding Palestinian's basic rights to housing and land ownership; conducting and publishing research on land issues and agriculture; and providing training. In addition, LRC supports the restoration of collective popular action in a bid to preserve land and agriculture, emphasizing the prominent role of women in these areas.

***MA'AN Development Center:*** Independent Palestinian development and training institution established in January 1989, registered by law as a non-profit organization. Its main office is located in Ramallah, with four branches in Gaza, Khan Yunis, Tulkarem and Jenin. MA'AN works to support environmental and organic agriculture (build practical models for farmers' observation) and has been organizing fish-farming since 2011. It supports agricultural activities across the almonds and vegetables value chains in the West Bank, as well as dates in the Gaza Strip. It promotes and builds water-recycling stations, while equipping farms with irrigation networks, in addition to helping with marketing.

***Palestinian Hydrology Group (PHG):*** Established in 1987 as an independent, specialized institution dedicated to developing and protecting water and environmental resources, PHG promotes enhanced public access to adequate water supply sources and sanitary conditions, while developing information systems and technologies, including GIS. Given the rapidly deteriorating water situation in the West Bank and Gaza Strip, and the neglect of the basic water-supply infrastructure in the mid-eighties and early-nineties following the outbreak of the Intifada, the Group immediately took up the task of responding to emergency situations through developmental work and promoting a more efficient use and reuse of all existing types of water resources. Accordingly, PHG undertook various activities which included: developing natural springs and using their water for drinking and irrigation; creating job opportunities for those who lost their jobs during the Intifada; rehabilitating groundwater wells; developing rain-fed catchment systems in order to enhance water supply for irrigation and domestic uses; developing local water supply systems; and promoting new technologies and techniques on best practices in water conservation both from a quantity and quality point of view.

PHG has been trying to address critical water resource management issues. However, natural scarcity, pollution and Israeli control over resources has led to one of the world's most fragile water systems. The Group has nearly 65 staff members working on different activities and

operating out of six offices located across the Palestinian Territories. It has an annual budget of nearly USD 5 million.

***Union of Agricultural Work Committees (UAWC):*** Non-profit organization established in 1986 in response to the socio-political crises caused by Israeli military occupation. As a grassroots organization initiated by a group of volunteers and experts in the areas of agriculture and development, UAWC works to protect the land and enhance rural livelihoods by improving the performance and productivity of Palestinian farmers. It also aims to lobby for a supportive policy and regulatory environment for farmers, and to help Palestinian farmers market their produce. The Union's initial priorities were to resist to Israeli measures designed to cripple agricultural development and infrastructure. Today, UAWC focuses on land rehabilitation, leading a consortium of four NGOs in a long-term program across the West Bank. It also focuses on food security and sovereignty; effective management and upgrading of natural resources; youth and women's empowerment; organizing farmers and peasants in "La Via Campesina" movement in Palestine; providing extension services; building capacities for cooperatives and grassroots organizations; advocacy and lobbying to improve policies and the legal environment (including compensation in case of disasters, agricultural insurance, financing, rural women). UAWC has two headquarters, one in Ramallah and the second in Gaza. It has branches across all regions of the West Bank and Gaza, with 100 employees.

Most of the NGOs (and notably the major ones presented here) commenced their work before the establishment of the Palestinian Authority and have significant expertise in providing services to, and communicating with, Palestinian farmers. Because of the relatively big size of these NGOs that favors a wide range of interventions,<sup>104</sup> and of the necessarily diversification of their research funding, their field of expertise sometimes overlap. But globally, the mapping exercise shows complementarities; each of them having a clear and specific focus and posture. It also shows that some of them emphasize on political engagement and advocacy (UAWC and ARIJ), while others develop a sharper thematic expertise (PHG, LRC) or a general posture toward research and training (MA'AN).

According to MoA, a major share of external funding support goes to these organizations.<sup>105</sup> Most support comes from international agencies and foreign organizations, some of whom carry out projects directly (through their own staff) or through partnerships with local institutions. That said, the sector's share of external support remains low and is out of step with its importance on the national level.

This dependency on external funding may appear as a weakness, insofar as it constraints NGO interventions to a short-term perspective (the term of funding and projects), whereas agricultural dynamics are often long-term. However, operations supported by international organizations, even if they are limited in time, undeniably strengthen the long-term relationship between NGOs and farmers. Additionally, these NGOs contribute to establishing

---

<sup>104</sup> Some smaller NGOs are more specialized and operate locally because on this specialization. The Palestinian Livestock Development Center, a non-profit organization established in 2004 is a case in point. This is a relatively small NGO working in Tubas in the northern West Bank. It specializes in supporting livelihoods, with Oxfam being its main partner for projects. The Center helps to provide veterinary services through mobile veterinary clinics and laboratories (for a small fee to cover the costs). FAO's artificial insemination program is part of this.

<sup>105</sup> Ministry of Agriculture, 2014. *National Agricultural Sector Strategy: Resilience and Sustainable Development*.

and supporting agricultural cooperatives, capitalizing on the work of farmers and their own expertise.

Moreover, NGO interventions supported by international organizations help to ensure good project monitoring. Although such projects' time is relatively short, the measurement of success indicators contributes to providing information on the sustainability of rural development and the strategic areas on which to focus action. Particularly, projects' requirements contribute to monitoring the sustainability criteria and indicators for young people and women.

#### 4.1.2. NGOs contribution to MoA roadmap and strategy

As already indicated in part III, NGOs, cooperatives and other associations should henceforth operate in line with policies and frameworks developed jointly at national level, notably the National Agricultural Sector Strategy (2017-2022),<sup>106</sup> therefore under the guidance of the Ministry of Agriculture. The themes of sustainable agriculture and food sovereignty are predominant in their plans and programs. Yet, such themes are not easily translated into practical operations due to the dependence on external donations and lack of resources. Concrete actions implemented in the field depend on financing opportunities and may differ slightly from the public policy road map.

MoA's primary duties are to oversee and regulate the agricultural sector. It is tasked with oversight, supervision and delivery of certain basic services. MoA carries out its assigned mission from its main offices in Ramallah, as well as through 16 Agriculture Directorates located in governorates. An identical number of veterinary directorates also operate in governorates and carry out extension activities in the West Bank. MoA services focus on planning and developing policies, strategies, laws and regulations; service delivery; project implementation; natural and agricultural resource development; enabling Palestinian farmers to remain on their land; and fighting resistant plant pests and livestock diseases.

MoA had a total of 1,409 staff members at the end of 2018 (they were 1,710 in 2016), half of whom work in the West Bank and the other half in the Gaza Strip. 18 staff members hold PhDs, 80 have Masters' degrees and 716 hold bachelor's degrees. In addition, the Ministry employs 61 veterinarians and 534 persons in various other specializations. With 5 clusters (natural resources, economic sector, technical directorates, management and planning, and governorates' directorates of veterinary and agriculture services on the field),<sup>107</sup> its practical operations are rather specialized and compartmented. This kind of organization is generally not appropriate to address crosscutting issues such as territorial development.

Romero (2017) lists the ministries and public institutions of the Palestinian Authority that can potentially play a role in agricultural development. This list reveals on the one hand the high potential for collaboration and cross-cutting policies, but on the other hand, the fact that agricultural policies are de facto disaggregated among a certain number of entities that hardly work together. Taking the case of commercial constraints for example (small domestic market

---

<sup>106</sup> The State of Palestine, National Agriculture Sector Strategy (2017-2022), Resilience and Sustainable Development, 2016

<sup>107</sup> Romano, 2017. West Banks and Gaza Strip Context Analysis.

and dependence on Israeli policies for exports), the Ministry of National Economy is highly strategic for agricultural development, the cooperative movement depends on the Ministry of labor, the Palestinian Water Authority has mandate to regulate water resources including for agriculture, etc. Introducing environmental and health issues in agriculture or grassroots development, notably in an organic or at least more agroecological perspective, also requires collaboration with the relevant ministries and bodies.<sup>108</sup> In the same vein, just as everywhere else, food safety programs require to engage multiple stakeholders.<sup>109</sup> Past studies insisted on the difficulties to implement such cross-cutting approaches.

MoA leads agricultural planning at the national level and follows up on its implementation, making it the primary policy-maker for the agricultural sector. As stated by its staff, it is faced with many constraints, including its limited budget allocation from the Palestinian Authority and donor agencies to start with. The MoA's total budget represents only 1% of the general budget of the Palestinian National Authority (PNA), most of which is spent on salaries. Reason why the Ministry cannot effectively take charge of policy implementation and has to rely on NGOs and cooperatives on the field, while NGOs cannot count on MoA to exist and continue their activities on the field. Because these organizations depend heavily on external funding, agricultural development projects are de facto determined by donor countries' priorities. As donors and Palestinian priorities may differ from time to time, there is a significant risk of lack of coordination and of inefficiency.

The Ministry performs its tasks according to a legal framework that sets its mandate to lead and guide agricultural development in Palestine. The agricultural sector is considered as part of the private sector, which may partially explain the low budget allocated to the Ministry, but the private sector obviously remains weak. Finally, neither MoA nor PNA has sovereign control over natural resources (mainly water and land), which is a major constraint to designing, implementing and evaluating agricultural policies.

#### **4.2. The strategic posture and position of FAO**

FAO was assessed by all NGOs, cooperatives and MoA as an important, value-added partner in securing the livelihoods of farmers and vulnerable groups in Palestine. Consensus among all stakeholders (MoA, NGOs, cooperatives and others) is that FAO has a positive image as a UN-institution committed to the development of the agricultural sector through support and vital interventions.

However, the main area of criticism revolved around overlaps between FAO and NGOs in project implementation. One criticism is that, sometimes, FAO competes with Palestinian development organizations for project implementation, indicating that local NGOs are more efficient in this role. It is perceived that FAO's role is to build partnerships with NGOs and take the leadership on policy development, while providing technical support and capacity building to active organizations and MoA.

---

<sup>108</sup> We want here to stress the existence of the Palestine Standards Institution (PSI) that could potentially be of importance for promoting Palestinian products.

<sup>109</sup> Ibid.

On the other hand, interviews with local societies and cooperatives show a positive appreciation of FAO and its involvement in project implementation: it is considered as an international organization that supports the development of agriculture. Some even think that FAO is a major source of funding for development programs, whereas it is not at all a funding agency. The Food Security Sector (FSS) initiative is cited as a means to facilitate the coordination of collective humanitarian actions, which seemed difficult to implement by local organizations themselves.

FAO's staff in Palestine explained that the role of FAO is to facilitate food security interventions; coordinate different stakeholders to enhance the possibility of collective development work; connect local stakeholders with international parties; in addition to participating in regional/international forums on livelihoods' protection, agriculture and development.

It is believed that there is solid ground for FAO to develop a powerful, integrative partnership with local NGOs, MoA and other stakeholders. FAO is well-positioned as a development resource center; as a forum for policy and regulatory development; and as a vehicle for networking with regional/international stakeholders. FAO possesses core competencies in technical support for institutional and organizational development (for MoA, NGOs, cooperatives and others), sharing knowledge and fostering a cooperative culture.

### 4.3. SWOT Analysis of Major NGOs in the Agricultural Sector

Based on responses to the self-assessment questionnaire distributed to the main NGOs, and workshop discussions for NGOs working in agricultural development, the following SWOT parameters can be identified for large agricultural NGOs.

#### **Strengths**

- Commitment to supporting the livelihoods of farmers; long history of working with farmers and enhancing their resilience; proven commitment to devoting efforts and resources to protecting Palestinian agriculture.
- Long history and membership in local and international networks and coalitions; ability to influence development policies at the national level.
- Diversified, experienced, committed and qualified human resources.
- Recognition from key stakeholders including MoA, international agencies and target groups.
- Strong governance systems (for most NGOs) based on compulsory legal registration and abiding by local laws and regulations; transparency and accountability to people and donors; compliance with auditing and monitoring practices.
- Transparent and effective institutions with strong financial systems, policies and procedures.
- Enhanced attitude towards planning, developing effective systems and procedures, and standardizing work processes.



- Diversified programs including land rehabilitation, agricultural practices, marketing, capacity building for cooperatives, youth/women and other developmental programs.
- Own facilities and physical resources; for example, many own their main offices. Their assets are useful to face financial and/or commercial risks.
- Ability of some NGOs to cover part of their operating expenses internally.

### ***Weaknesses***

- Rely on donations and are tied to conditions and agendas that could divert them from their vision and national priorities. Continuing dependence on foreign funding creates a constant risk, while low income-generating investments threaten long-term self-financing strategies.
- Poor synergies and sporadic internal communication between NGOs and their different programs; short-sighted vision of integrative development; as well as absence of transformational, long-term, developmental methodologies.
- Weak perennial documentation, lack of shared resource centers and poor information management systems across NGOs deprive different stakeholders of accurate impact assessment data on NGO interventions, farmers, the agricultural sector and the national economy.
- Lack of focus on organizational goals, competencies and effectiveness potential, due to their drive to secure funds regardless of area of competence, nature and requirements of the fund, type of intervention or service.
- Internal conflicts in some case that have prevailed for long, with a negative impact on organizational roles and relations.
- Part of NGOs' core staff are project-based, threatening their stability in the organization.
- Some NGOs have weak public relations, with low information dissemination and advertisement efforts to support the organization and its activities.
- Despite strong human capital, NGOs have recently experienced a decline in organizational capacity-building, in self-learning and in actions taken to maintain an organizational environment conducive to learning.

### ***Opportunities***

- Numerous donors with long-term operations in the Palestinian Territories.
- Limited number of integrated marketing services, with no mechanism for mainstreaming available resources.
- High demand of livestock products from Palestinian consumers which justifies renewed support for, and studies on, the sector.
- Increasing trend towards adopting rights-based approaches to development and livelihoods.

- Limited governmental initiatives designed to tackle the huge challenges faced by agriculture and poor implementation of supportive policies.
- Funding prospects for agricultural programs and services.

### ***Threats***

- Israeli occupation may impose further restrictions on NGOs, farmers and the agricultural sector in general (commercial constraints and/or access restrictions on natural resources), that may affect NGO funding and missions.
- Low opportunities for self-financing.
- Negative consequences of the regional political and economic crisis.
- Internal Palestinian political divisions that negatively impact the work of civil society organizations.
- Absence of an operational Legislative Council to review and pass laws, while monitoring governmental policies and practices.

## Part V: Conclusion and Recommendations

### 5.1 Conclusion

The agricultural sector remains important from an economic, social and political point of view. Agriculture in Palestine is not only a source of income and labor, it is also part of the Palestinian cultural and social fabric. The expansion of settlements and further construction of the Separation Wall resulted in the confiscation of large areas of the West Bank, mostly fertile agricultural land in the northern West Bank, as well as the control of more Palestinian water resources. Moreover, PCBS indicated that in 2010, Israeli measures denied access to 19,740 agricultural holdings representing a total area of 377,977 dunums or 31.3% of the total area of agricultural holdings in the Palestinian Territories.<sup>110</sup>

Palestinian agricultural sector's contribution to GDP has been fluctuating, from 30% in 1970, it fell to about 18% in 1987 and continued to decline to only 11% in 2003 and 3.2 % in 2019. This is explained by the growth of other economic sectors on the one hand, and by limitations established by the Paris Protocol.<sup>111</sup>

Agriculture remains one of the economic sectors that is reported to contribute greatly to the development process in Palestine,<sup>112</sup> given its ability to create jobs and generate incomes for the low-skilled segments of the labor force. Thus, it is important for combating poverty and unemployment, and for supporting small-scale farmers through the development of practical agricultural policies via organizational entities that can identify operational norms and implement resulting interventions and programs.

The strategic plans of the Ministry of Agriculture (MoA) illustrate the range of policies designed to strengthen farmers' attachment to their land and their resilience, including by rehabilitating what was destroyed by the Occupation and extending support to farmers affected by Israeli aggressions. Policies designed to improve Palestinian agricultural production capacity and its ability to compete in domestic and foreign markets include managing resources in Palestinian Territories efficiently and sustainably; supporting the institutional and legal framework; developing and rehabilitating human resources in agriculture; and improving the productivity of agriculture (both plant and livestock) and its contribution to food security.

However, various studies as well as interviews with farmers, cooperatives and development institutions confirm that policies have either not been applied or have achieved partial results that fell short of the intended solution to identified farming/agricultural issues. During this

---

<sup>110</sup> PCBS, 2011. *Agricultural Census – Final Results, Palestinian Territories*.

<sup>111</sup> Ministry of Agriculture, 2005. *Mid-Term Development Plan 2005-07*.

<sup>112</sup> UNCTAD, 2017. *The Occupied Palestinian Territory: Twin Deficits or an Imposed Resource Gap?*

study, it was observed that certain areas continue to suffer from policy failures across almost all fields. The Agriculture Law provides for the establishment of a natural disaster compensation fund, an agricultural insurance system, an agricultural lending bank, a gene bank and central laboratories. Furthermore, the Law prevents extreme land fragmentation and limits construction on agricultural land. However, neither the Law nor its regulations are adequately enforced. In the field of marketing, multiple systems and rules exist for managing central agricultural markets, which lack a coherent legal system. Moreover, local farmers have either limited – or no – access to updated marketing data. Given this shortcoming, most farmers often cultivate few traditional crops they are certain to sell, without looking at market trends, requirements and opportunities. Furthermore, physical assets for distributing the produce are lacking, as they require high capital investments relative to the market size. Unorganized small-scale farmers can hardly be expected to export their products without intermediaries. Additionally, farmer cooperatives/associations play a weak role, with ineffective agricultural extension and support policies.

In addition, small farmers also face problems such as lack of water resources; insufficient or improper machinery; poor quality and high price of inputs; inaccessibility and unavailability of pasture lands; poor quality breeds of sheep and goats; weak agricultural extension and research services; lack of control over market; poor financial support systems and other technical problems. Meanwhile, exports are more diversified and increasing.

The pivotal problem of small-scale farmers is their inability to access markets. Growing problems faced by farmers include the volatility of prices and low profitability; cultivation of same crops (poor farm planning at community level); low crop diversity; inability to market produce; high cost of production due to costly inputs and transportation; dumping of Israeli products (and in some cases from Jordan); absence of export channels; and lack of storage and other facilities. Farmers need technical support to adopt farming and marketing best practices.

Palestine hosts a great many NGOs that provide services to small-scale farmers and the agricultural sector overall. Major organizations have been active in the Territories even before the establishment of PNA and have core competencies in project design and management, networking, advocacy/lobbying and fundraising. Most agricultural development budgets are channeled through international agencies and local NGOs. The study shows that the work of Palestinian agricultural NGOs focuses on the same fields of support outlined in MoA policies. This includes expanding the cultivated area through land reclamation and rehabilitation projects; water harvesting; developing agricultural methods; seed and strain improvement; farming management; marketing services; capacity-building for olive oil cooperatives, technical support and others. NGO interventions create added-value that strengthen their relationship with farmers. In addition, they contribute to the establishment and support of agricultural cooperatives.

Farmers' organizations are too weak to influence regulations and policies and defend the rights of their members. Some organizations do view themselves as farmers' representatives and try to advocate for their rights. The agricultural cooperative movement is still limited in

view of the number of small- and medium-sized farmers enrolled, and in terms of its effectiveness. Cooperatives and unions have clear missions and goals, and defined identity and objectives, because these are required by law to facilitate their registration. The issue here is that the mission statement should be articulated in a process wherein all members agree to their collective mission and make plans to pursue it, considering the organization's vision and cooperation principles. However, cooperatives are viewed as an important mechanism for combating and overcoming the challenges facing this sector.

Even though marketing is a core objective of all interviewed organizations (unions/cooperatives), most cooperatives do not possess the required skills and expertise on marketing concepts, techniques or management. Cooperatives do not have a marketing infrastructure that includes packaging and canning agricultural products; vehicles equipped to deliver perishable products to markets; and retail chain arrangements. They also lack export expertise, as they do not have the financial capacity and physical resources to engage in export activities.

Some organizations such as Al Reef, Olive Mountain, New Farm and others spin-off marketing subsidiaries (marketing companies) to support the marketing efforts of farmers. These have succeeded in marketing and exporting certain quantities of olive oil and other products to international markets. Additionally, organizations and cooperatives offer some technical support and raise their members' awareness on technical issues in agricultural production. Marketing support is especially noticeable in the olive oil industry. However, almost all activities are sponsored by local NGOs and developmental agencies. Additionally, some organizations provide necessary tools (such as olive picking tools) that can be used to improve the production process. These also benefit from the support of international organizations.

## 5.2 Recommendations

Based on the analysis of small-farmer typologies, the root causes of their problems, their organizational framework and support policies, the following pivotal recommendations correlate to improve the livelihoods of small-scale farmers and hence, Palestinian agriculture in general.

### ***Partnership among stakeholders***

Interviewed NGOs indicated that despite not having an internal institutionalized coordination mechanism, different stakeholders maintain a basic degree of communication and networking, enabling them to coordinate some of their activities. This has also contributed relatively to improving relations and sharing experiences. The Food Security Sector initiative, which is co-led by FAO and WFP, is presented as an international initiative that helps in coordinating, sharing views and disseminating information. It appears that there is lack of clarity on partnership issues between NGOs, international agencies and MoA. There are also difficulties in developing a binding institutional setting at both the national and regional levels. Partners still need to reflect on the role and functionality of partnerships. Findings revealed that a long-term strategy for partnership has not been clearly formulated, nor documented or signed by partners.

FAO and other international agencies need to look for opportunities to build partnerships with NGOs and view the latter as partners rather than mere service providers or assistants in project implementation (as indicated by some organizations). Also, there is a need to devote more attention to facilitating NGO capacity-building, either directly by introducing updated approaches and methodologies, or by leveraging their involvement in policy and regulatory reform discussions. FAO and others can work as a catalyst to connecting local NGOs with international organizations, networks, forums, in order to enable them to better support small farmers. FAO and MoA can also adopt purposeful activities and measures (including shared information databases) to establish sustainable forums for cooperation in tackling relevant agricultural issues, especially in supporting marketing endeavors, research and advocacy for farmers' rights. A follow-up plan can be put in place to establish and sustain such forum. This would allow partners to effectively demonstrate and justify their performance. It could pave the way for the establishment of a regional forum (maybe including other CBOs). This structure may not only foster the exchange of views, experiences and good practices, but also strengthen stakeholder capacity to promote agricultural development.

### ***Working with cooperatives***

Based on the opinions and appraisals of various stakeholders, the general assessment is that farmer cooperatives are weak in terms of their commitment to cooperative culture and cooperation principles, as well as appropriate management arrangements and institutional issues. Nonetheless, cooperatives are an important vehicle in developing sustainable solutions to small-sized farmers' problems. It has been observed that most capacity-building programs targeting cooperatives focus on introducing cooperation concepts, helping to develop certain aspects of their governance, management and operations.

It is believed that a core issue relating to the weak status of the cooperative movement is related to the need to build cooperative culture and values. Cooperatives should not be perceived solely as a means for obtaining support, for business relations and trading operations. Building a cooperation culture is often overlooked in the Palestinian cooperative movement (a cooperation culture goes beyond merely presenting and stating cooperation principles). It is very difficult to develop a cooperative value system without a positive attitude to mutual solidarity and a commitment to helping vulnerable groups. This field needs further research to identify approaches that can start to influence attitudes, followed by technical support.

It can be observed that most women-oriented interventions focus on supporting traditional food-processing. As such, they can be effective when taking into consideration patriarchal norms predominant in Palestinian society. Historically, traditional food-processing has been woman's responsibility within the household. It may be that involving women in more creative and sophisticated social and business relations would contribute more to empowering them.

### ***Organization of advocacy forums***

Through multiple interviews, the study shows that policies and regulations are not sufficiently enforced. FAO and NGOs are encouraged to deepen their partnership with farmers' unions,

cooperatives and councils to achieve a solid coordination of their advocacy efforts. Achieving significant positive change in the legal and policy fields requires continuous, long-term lobbying and advocacy efforts, without which these achievements would wane in the short-to-medium term. Advocacy outcomes should be assessed based on the use of policy briefs and communication materials produced to address the agricultural sector's regulatory system. The impact of advocacy activities could be diluted over the long-term if such activities and interventions are not consistently implemented, such that partners are encouraged to pursue the ongoing benefits of achieved outcomes. In so doing, they need a follow-up plan, focused on identifying – in more concrete terms – specific anticipated results, as well as identifying future long-term interventions/directions and factoring these into their policies and projects.

### ***National M&E system***

Almost all organizations have their own M&E systems. By default, each program or project is evaluated as part of its close-out. However, there are no effective monitoring and impact assessment mechanisms at the national level. As indicated earlier, most NGOs measure their programs' achievements based on indicators for program output, partly focusing on long-term impact such as the sustainability of these programs, the sustainability of their outputs and their effectiveness in promoting the self-sustainability of farmers, especially young ones. It is a gap that can be filled through partnerships between FAO, MoA and NGOs working to improve M&E mechanisms by developing a shared methodology including impact indicators, baselines and progress monitoring. In this regard, survey tools should be carefully fine-tuned to contain all the major variables required to track key performance indicators. This should be applied consistently throughout all programs and across all target areas. Establishing a functional monitoring partnership is essential for the continuous improvement of development interventions. By default, this requires assigning competent staff with relevant specialized skills. It is worth mentioning that Agricultural annual statistics have not been produced for over 10 years.

### ***Categorization of farmers' typologies***

Almost all relevant stakeholders tend to define farmers' size or scale according to volume-based parameters, such as land area or number of livestock and so on. Considering variations in the type of agriculture (irrigated vs rain-fed), type of crops (high-value vs traditional), regional weather (coastal vs semi-arid) and other factors, almost all experts who participated in discussions agreed that such volume-based parameters are misleading. It is recommended that income (or production value) be adopted as the main parameter for categorization. Some think it is not possible to do so, given that PCBS collects data on land area, crops, production and sold quantities, but not income. Others indicate that it is possible to develop estimates based on farmers' selling prices (or wholesale prices) at specific times, while making seasonal adjustments. Farmers' categorization can be set according to estimates of their agricultural income (this may need regression modelling, which can be a good area for FAO technical support). The value categories can be cross-tabulated across regions, type of agriculture, type of product and so forth.

### ***Shared Databases***

The study found that all stakeholders (NGOs, cooperatives, unions, MoA, others) have worked with hundreds or thousands of small-scale farmers. These organizations mostly lack a comprehensive database to store data related to beneficiary farmers. Furthermore, they collect data from their beneficiaries on variables related to the kind of interventions they provide, without paying attention to those variables that are important to the farmer population. Most data available within each organization is not shared in a unified database that can be accessed for research purposes or for samples design. FAO and MoA are encouraged to adopt a unified data collection mechanism (unified applications) to capture the main attributes of agriculture/farming in targeted communities. To do so, statistical and data management experts should be consulted (or could be hosted by FAO) to ensure that tools are carefully fine-tuned to build a comprehensive information framework. Design can also address the issue of indicators, particularly baseline indicators for future evaluation. In this regard, forming a shared database can be discussed between MoA, NGOs, PCBS, IT experts, local consultants and others.

### ***Marketing challenges***

As outlined in this study, marketing is the most overwhelming problem facing small-scale farmers. Therefore, improving farmers' access to markets should include the introduction of new agricultural marketing techniques, as well as the development of a packaging and distribution infrastructure. Marketing is at the center of the value chain – if marketing services directed at small farmers improved, there will be a strong incentive for them to enhance their performance in pre- and post- harvesting activities. There are significant resources and possibilities regarding support for the establishment of marketing mechanisms and partnerships between different stakeholders.

Several NGOs have established marketing spin-offs from their agricultural support programs, such as Al Reef Company (linked to PARC), Mount of Olives Co. (linked to UAWC), New Farm (linked to several NGOs) and others. Cooperatives and CBOs have tried to establish their own marketing mechanisms, by creating points of sale or supporting each other in marketing their products.

Regarding the private sector, private companies engaged in the marketing of agricultural products include Canaan Palestine (a member of the Fairtrade Network) and Abantawi Group (sells locally and abroad, in addition to trading with intermediaries). Moreover, MoA signed an agreement with the Jordanian Ministry of Agriculture to establish an agricultural marketing company. Paltrade is also an important organization, specialized in supporting the export of Palestinian products. In addition to the above, other parties are involved in marketing agricultural products.

These and other stakeholders can be a valuable resource in developing a physical marketing infrastructure, linking producers with consumers and shortening distribution layers. In this regard, market and organizational studies are needed to gain insight into market structures and consumer behavior. This will enable implementing stakeholders to develop customer-oriented marketing strategies, promote fair and equitable access to markets, and optimize



the value-added share for farmers. It could also offer relevant insights on how the local market can be organized more efficiently and transparently. And regarding the central vegetable markets, there is a need to unify the market mechanism where price is determined by an independent body.

### ***Reliable quality assurance***

Quality assurance is a core issue that must be addressed in tune with marketing. Without trustworthy quality assurance systems and certificates, marketing efforts will be useless. The challenge is to build a system that creates positive perceptions among customers. This would not be possible without an established, reliable, physical distribution mechanism. Also required is a national quality assurance system that can verify product specifications, source of origin, branding and labelling. Relevant parties can form partnerships. Some reported that most quality standards and assurance systems are not trustworthy enough. For example, the Director of PAID in Slafit indicated that auditing and quality assurance stakeholders are more concerned with fees than establishing a trustful quality assurance culture. He explained that if you pay the fees, they are willing to renew certificates on the phone.<sup>113</sup> There is a need to develop specifications and standards for each category of agricultural products. This should include quality, packaging, grading and mandatory technical instructions that are applied to all products in the market. Above all, consumers need to trust sources of verification.

### ***Operational strategic planning***

As indicated in this study, strategic planning is being conducted by various key stakeholders. However, in practice, all organizations are project-based, implementing projects and activities when they secure funding, taking into consideration that MoA never allocates significant resources to support development programs. It could be more effective and practical to create a general forum for all agricultural development organizations and link them together to develop a joint strategic framework. Each organization could present its available resources, and total resources can be categorized. Stakeholders could harmonize interventions and build a framework (mosaic) in which each organization contributes to the general development framework.

It is important to grant each organization its own space, to implement funded interventions with full adherence to their internal systems, procedures and donor requirements, albeit in coordination with other organizations. This planning will be based on harmonized synergies and optimized usage of available resources, rather than developing very ambitious strategies, while in practice working on project-based mechanisms.

### ***Other services in support of small-scale farmers***

There is a set of software and hardware services in support of small-scale farmers that need to be tackled collectively by all stakeholders. These services include:

- ***Improving delivery of agricultural extension services:*** In all surveyed agricultural communities, extension services were described as very weak and deficient. Farmers

---

<sup>113</sup> Mr. Samir Al Masri, Director of PAID.

also indicated that services offered by MoA should be improved and that the skills of extension agents need to be upgraded through training. Laboratories and transport facilities should also be provided to support the work of extension officers. Moreover, extension services should focus on introducing new technologies. The Agronomists Association and NGOs can potentially partner with MoA in this domain.

- **Improving financial services:** Improving financial support systems is a crucial part of any intervention and should involve support to refund value added tax (VAT), the development of an agricultural insurance scheme, and the efficient distribution of aid from different organizations.
- **Collective purchasing of inputs is a key task for any cooperative and a solution to reduced farming profitability.** Hence, empowering and developing farmer organizations can lead to collective services for farmers, such as sourcing heavy-duty tractors for deep-ploughing which are very expensive to individual farmers. In addition, soft loans can help farmers to improve their facilities.

### ***Policies targeting different farmer profiles***

We emphasized above the importance of developing a more precise typology of farmers, in order to better target the needs of different categories. One set of agricultural and food policy tools cannot fit the needs of both urban agriculture, part-time farmers with varying degrees of involvement in agricultural production and full-time farmers.

The 2010 Agricultural Census enables us to note that:

- 27.4% of the 311,310 holdings are market-oriented (they primarily market their production). Logically, this is seen mainly in larger farms. Conversely, many small farms are primarily dedicated to households' food security through self-consumption.
- At the same time, only 25.6 % of farmers are mainly or full-time farmers. Pluriactivity is a massive datum rarely highlighted in strategic planning documents. However, depending on the way in which this pluriactivity is implemented, it can have distinct effects on local dynamics: positive if it permits to boost local dynamics through useful investments in collective action, or more or less negative if it makes it difficult to access land for full-time farmers or divert agricultural land for recreational use.
- Lastly, the difficulties of accessing inputs – and therefore their relatively low use – make it possible to assume that the knowledge of a low-input agriculture is still under control.

An analysis of the 2010 Census of Agriculture data allows us to hypothesize, which should be verified in the next census, that at least four farm types coexist:

- Home gardens whose primary purpose is self-consumption (around 70%);
- Part-time farmers who sell most of their production (estimate: 15%);
- Full-time farmers who have a commercial farming strategy (estimate: 15%)
- Transhumant herders (estimate: less than 1%).

This situation leads us to suggest a collective reflection around three themes which appear to be key to enhancing the sustainability of the agricultural sector:

- The implementation of a proactive **urban agriculture policy**, the major challenge of which would be to improve household food security. It could both facilitate access to food for the poorest households, but in a more systematic way, contribute to improving diet through a diversification of products from home gardens. It could also have an educational role thanks to a privileged link with schools and other learning centers. It could finally facilitate the connection between urban agricultural producers and consumers in the cities, by promoting the establishment of short marketing channels.
- **Pluriactivity** is a major determinant of Palestinian agriculture, though a hidden one. Better managing it would no doubt make it play a more active role in local dynamics. This could address several policy tools, first of which is land: it is vital for Palestinian agriculture to maintain the agricultural value of its fertile lands. A legal status recognizing pluriactivity could be useful, provided it is conditional on the effective valorization of agricultural lands and preservation of their productive value. A second tool relates to collective action: part-time farmers have a potentially wider social network thanks to their other job. They also have skills that can be useful for collective action. It is therefore important that incentives be put in place to involve them in local collective actions (cooperatives, local authorities, etc.). Lastly, their mobility between urban and rural areas can facilitate a better marketing of local agricultural production.
- **Agroecology**. Palestinian agriculture, except for a few particularly intensive and irrigated valleys, has kept production patterns with low levels of inputs. Know-how therefore exists, which can be improved with the knowledge produced through the dynamics of agroecology: it would undoubtedly make it possible to improve and diversify production, but also to better manage natural resources, particularly water. It could probably result in better marketing, producers being more attentive to the safety of the products they consume.

## Annex 1 : Bibliography

- Abu Zein and Merdawi, 2012. Demographics of Agricultural Landholders in the Palestinian Territories.
- Ahmad, 2017. The weakness of Palestinian production sectors and its impact on exports. Masters' Thesis, Al-Azhar University. Page 70.
- ARIJ, 2015 Palestinian Agricultural Production and Marketing between Reality and Challenges,
- ARIJ, 2015. Palestinian Household Consumption Trends for Agro-Commodities Study - summary.
- Barron (1922) published the results of Population Census, which indicates 35 % of the population in Municipalities (cities), 51.5 % in the villages and 13.5 in the ribal areas
- Center for Development Studies, Birzeit University, 2016. Urbanization and Exclusion as Tools of Transitional Rural Formation: The Cases of Anata and Birzeit.
- FAO and Al-Markaz, 2011. Qualitative Study on Women's Participation in Agriculture Work in the West Bank and Gaza Strip.
- FAO, 2013. The European Union programme in support of agriculture and livestock based livelihoods in the West Bank and Gaza Strip.
- Isaac and Hrimat, XXXX A Review of the Palestinian Agricultural Sector. Spanish cooperation.
- Jahshan XXXX "The Agricultural Question in Palestine" (unpublished study, pp. 46-47).
- Karzem 1999 "Towards Alternative and Self-Reliant Agricultural Development" Development Studies Program, Birzeit University, 1999
- Lodolini, E.M.; Ali, S.; Mutawea, M.; Qutub, M.; Arabasi, T.; Pierini, F.; Neri, D. (2014). Complementary irrigation for sustainable production in olive groves in Palestine. *Agricultural Water Management*. 134: 104–109. doi:10.1016/j.agwat.2013.12.006. ISSN 0378-3774.
- Marzin and al., 2016. Study on Small-Scale Family Farming in the Near East and North Africa Region. P 13.
- MAS, 2008.
- MAS, 2013. Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder famers.
- MAS, 2013. Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder famers.
- MAS, 2016. Enhancing the Role of Women in the Palestinian Agricultural Sector.
- MAS, 2017. Strategic Review of Food and Nutrition Security in Palestine.
- Ministry of Agriculture, 2005. Mid-Term Development Plan 2005-07.
- Ministry of Agriculture, 2014. Small-scale family farming in the WB: A diagnostic study
- Ministry of Agriculture, 2014. National Agricultural Sector Strategy: Resilience and Sustainable Development.
- Ministry of Agriculture. 2016 National Agriculture Sector Strategy (2017-2022).
- Ministry of Agriculture. The State of Family-Scale Agriculture in the West Bank. A diagnostic study. 42-43.
- Nasser, 1999. Palestinian Small Business Enterprises in the West Bank: Their Nature and Conditions of Success. Ramallah: Forum for Social and Economic Research in Palestine

OCHA 2017 Humanitarian Bulletin Occupied Palestinian territory. November 2017 p 8 and following

Palestinian Bureau of Statistics, 2006 Farm Structure Survey, 2004\2005 Main Findings

Palestinian Bureau of Statistics, 2008 Labor Force Survey Results, 2000-2007.

Palestinian Bureau of Statistics, 2011. Agricultural Census Data – Final Results, Palestinian Territories. .

Palestinian Bureau of Statistics, 2013. Fragmentation of agricultural holdings and its effect on the productivity and technical efficiency of smallholder famers. Prepared by MAS.

Palestinian Bureau of Statistics, 2014. National Accounts at current and constant prices, 1994-2016.

Palestinian Bureau of Statistics, 2016. Family farming survey in 2015: main findings.

Palestinian Bureau of Statistics, 2017 Living Standards in Palestine (Expenditure, Consumption and Poverty), Main Findings 2017

Palestinian Bureau of Statistics, 2017 Registered foreign trade Statistic – Goods and services, main results, 2017

Palestinian Bureau of Statistics, 2018 Data base of Labor force survey, 2018

Palestinian Bureau of Statistics, 2018. Palestinian Economic Performance 2017.

Palestinian Bureau of Statistics. 2017 census. Indicators for Household Budget.

Paltrade, 2018 ITC Export Potential Map.

PalTrade, XXXX The agricultural sector in Gaza strip. Obstacles to Development.

Romano 2017, West Banks and Gaza Strip Context Analysis. FAO Report

Shawki Makhtob, Trade Policies Manager, PalTrade

The Israeli Information Center for Human Rights in the Occupied Territories. Water Crisis. 11 November 2017.

This Week in Palestine. Agriculture in the Palestinian Jordan Valley. Current Reality and Future Prospects (by Khaled Daoud).

This Week in Palestine. Organic Agriculture - A Key to Food Security. Issue No. 145, May 2010.

UAWC, 2014. Olive Oil Market Assessment.

UNCTAD, 2014. Palestinian Fiscal Revenue Leakage to Israel Under the Paris Protocol on Economic Relations.

UNCTAD, 2015. The Besieged Palestinian Agricultural Sector, page 8.

UNCTAD, 2016 Les coûts économiques de l'occupation israélienne pour le peuple palestinien

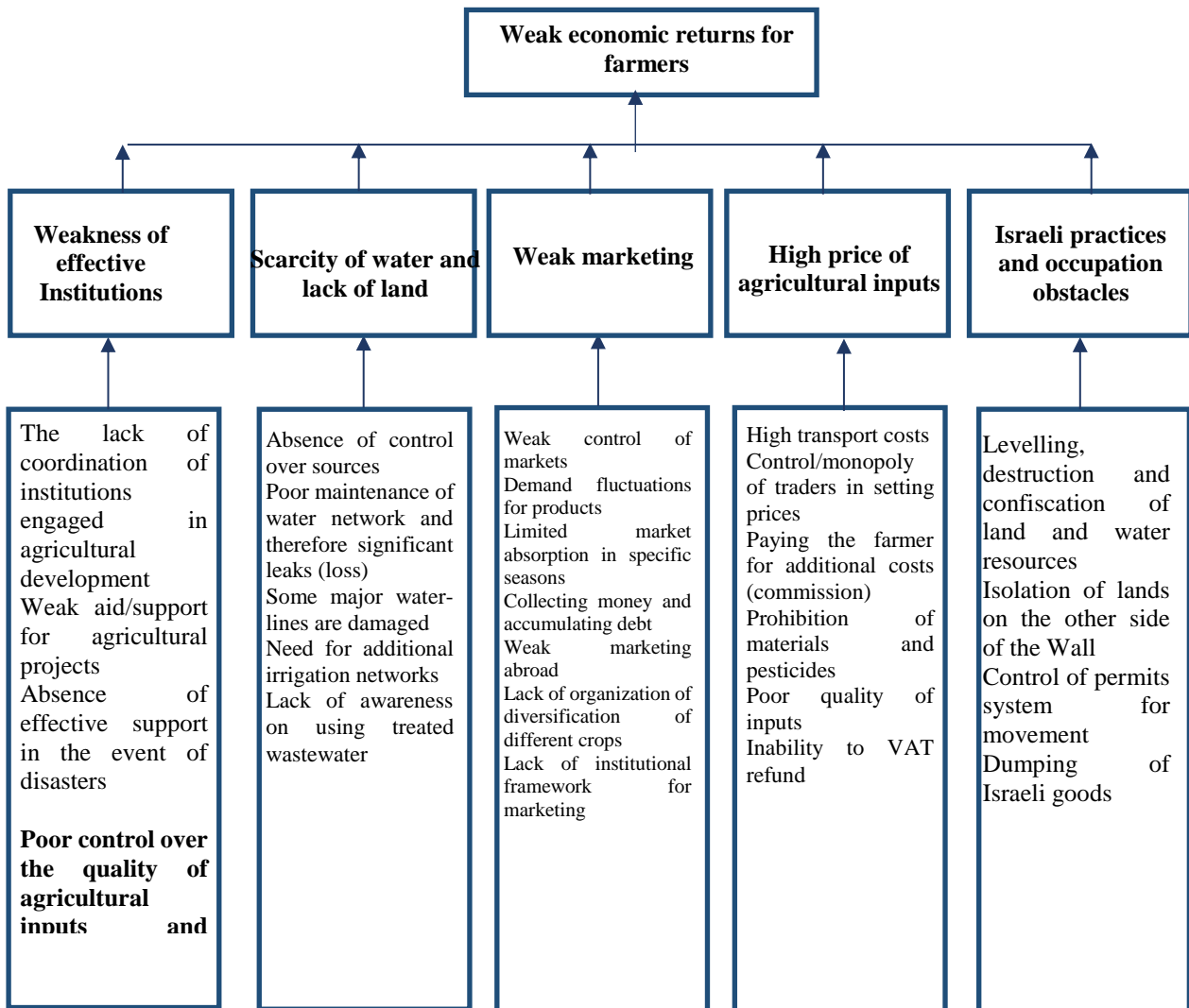
UNCTAD, 2017 The Occupied Palestinian Territory: Twin Deficits or an Imposed Resource Gap?

WB 2013 West Bank and Gaza : Area C and the Future of the Palestinian Economy

## Annex 2. Summary of Small Farmers' Problems

Despite the fact that not all type of farmers are facing at the same degree of the various problems, however; the main problems facing the agricultural sector can be summarized according to the problem trees<sup>114</sup> shown in the figures below:

Figure 12 : Problem Tree for the Farming Sector



<sup>114</sup> Based on the findings of the NGOs workshop and the interviews with wide spectrum of agricultural experts

## Annex 3 : List of interviews

### List of interviews

Name	Organisation / function	where
collective ITV	Union of Agricultural Work Committees (UAWC) Gaza branch	Gaza
Mohammad Saber	Agricultural Cooperative Society for strawberry, vegetables and flowers.	Beit Lahya
Jihad Al-Kafarneh	Agricultural Cooperatives society in Beit Hanoun	Beit Hanoun
Tshin Saadat	Palestinian Farmers Association – North Gaza Governorate	Gaza
Arfan Abu-Khosa	Breeder of the Livestock and agricultural Society	Gaza
Abd Al-Aleem Abu-Jarad	Poultry farmers and Rural Development Association	Gaza
Mohammad Yousif Masri	Agricultural Compensation and Insurance Fund	Ramallah
Faris Gabi	Advisor in Near East Distribution & Marketing / Expert in the olive sector	Ramallah
Tariq Abu Laban	Agricultural Marketing Department Director – Ministry of Agriculture	Ramallah
Ahmad Salih Rabayi'a	Agricultural Research Center   Ministry of Agriculture - Jenin	Ramallah
Saleem Abu Ghazalih	AL REEF for Investment and Agricultural Marketing	Ramallah
Basil Jara	Arab Center for Agriculture Development (ACAD)_The credit Company	Ramallah
Khalil Khateb	Arab Center for Agriculture Development - ACAD	Ramallah
An'am Zaqoot	ASALA for Credit & Development Company	Ramallah
Ahmad Abu Farkha	CANAAN PALESETINE – Faire Trade	Jenin
Nazih Araman	Cooperative Work Authority (MoA)	Al Berih
Aamar Salahat	Department of Agricultural Lands – Ministry of Agriculture	Ramallah
Mahmoud Bsharat	Director of Field irrigation Department	Ramallah
Jamal Bornat	Economic & Social Development Center of Palestine (ESDC)_NGO	Al Berih
Hussain Zedan	Green Olives Mountain Company	Ramallah
Hassan Al Ashqar	General Manager of Planning and Policies	
Wahbah Assfoor	MA'AN Development Center (NGO)	Ramallah
Salah Abu Aisha	Near East for Manufacturing & Trading Company	Nablus

Hassan Ayani	New Farm Processing and Marketing Company	Ramallah
Shawki Makhtoob	Palestine Trade Center (PALTRADE)	Ramallah
Riyad Al Shahed	Palestinian Agricultural Credit Institution (PACD)	Ramallah
Abbass Melhim	Palestinian Farmers Union	Ramallah
Mir'i Shawahnih	Palestinian Livestock Development Center	Tubas
Fayad Fayad	Palestinian Olive Oil Council	Ramallah
Reem Fat-hi	Poultry Department – Ministry of Agriculture	Ramallah
Maha Haneti	REEF Finance	Ramallah
Mo'ayad Suliman	Ruminant Section - Extension Department   Ministry of Agriculture	Ramallah
Izza Zedan	The Palestinian Agricultural Relief Society (PARC)	Ramallah
Jamal Al-Deek	The Palestinian Peasants Union	Ramallah
Shahir Al Junaidi	The Palestinian Vegetables Council	Ramallah
Omar Tabakhna	Union of Agricultural Work Committees	Ramallah
Salah Al Baba	Union of Agricultural Work Committees – Agricultural Extension Department	Ramallah
Motaz Khalaf	Applied Research Institute - ARIJ	Bethlehem
Abeer Abu Areesh	Applied Research Institute - ARIJ	Bethlehem
Idleen Karagih	Agricultural Cooperatives Union	Ramallah
Abdullah Tamimi	Agricultural Cooperatives Union	Ramallah
Ayamn Amro	Director of the Department of Veterinary Services and Livestock Health - Ministry of Agriculture	Ramallah
Abd Allah Lahlouh	The Ministry of Agriculture - Undersecretary	Ramallah
Azmi Abu Bakir	Ministry of the National Economy	Ramallah
Ahmad Al-Sawarkah	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Jihad Al- Sawarkah	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Muhareb Al Rababyah	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Ibraheem Abu Seif	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Ahmad Eid	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Mohammad Khalaf	Focus Group - Vegetable and livestock farmers on the borders	Gaza



Mohammad Abu Saeid	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Mahmoud Muslem Abu Saeid	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Khaled Mahmoud Al Awawdah	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Ahmad Mahmoud AboSaeid	Focus Group - Vegetable and livestock farmers on the borders	Gaza
Nabeel Abu Shamalah	General Manager of general planning and researches - Ministry of Agriculture	Ramallah
Eng. Basheer Al-Anqah	Union of Agricultural Work Committees - Planning operations department manager	Ramallah
Eng. Raed Jalala	Union of Agricultural Work Committees - Follow up and evaluation officer and project manager	Ramallah
Eng. Ameen Felfel	Union of Agricultural Work Committees - Market rehabilitation agricultural guide	Ramallah
Eng. Sameer Al-Sha'er	Union of Agricultural Work Committees - Agricultural guide	Ramallah
Eng. Khaldoon Al-Shanta	Union of Agricultural Work Committees - Guidance and marketing	Ramallah
Eng. Ramzi Odeh	Union of Agricultural Work Committees - Guide	Ramallah
Eng. Mousa Al-Jaba	Union of Agricultural Work Committees - Guide	Ramallah
Abdul Al Aleem Abu Jihad	The association of poultry breeders and rural development	Gaza
Eng. Basheer Al-Anqah	Union of Agricultural Work Committees - Planning operations department manager	Gaza
Eng. Raed Jalala	Union of Agricultural Work Committees - Follow up and evaluation officer and project manager	Gaza
Eng. Ameen Felfel	Union of Agricultural Work Committees - Market rehabilitation agricultural guide	Gaza
Eng. Sameer Al-Sha'er	Union of Agricultural Work Committees - Agricultural guide	Gaza
Eng. Khaldoon Al-Shanta	Union of Agricultural Work Committees - Guidance and marketing	Gaza
Eng. Ramzi Odeh	Union of Agricultural Work Committees - Guide	Gaza
Eng. Mousa Al-Jaba	Union of Agricultural Work Committees - Guide	Gaza

Basheer Raflah Al-Sous	Olive Pressing Cooperative Association - Association President	Bait Jala
Tahseen Mohammad Odeh	Beekeepers Cooperative Associations - Management member	Ramallah
Abdel Naser Hassan Rajab	Association of Kfar Libd - Association principle	Kfar Libd/Tulkarim
Alaa' Khashan	Bakah Alsharkiyah Cooperative Association - Principle	Baka Alsharkiyah/ Tulkarim
Mohammad Darwish	Beitilo and Deer Amar Agricultural Cooperative Association -Management board member	Beitlio/ Ramallah
Mohammad Darwish	Betilo Association for development of Livestock - Association President	Betilo/Ramallah
Noor Al-Deen Ashtayih	Tal cooperative association of Olive Pressing - Committee's member	Tal/Nablus
Ribhi Bakir	Eastern BaniZaid Association of Organic Oil - Board member	Alnobi Farms / Ramallah
Attallah Tamimi	Ramallah Agricultural Marketing Association - Association President	Ramallah
Nasir Jaradat	Beekeepers Cooperative Associations - Management member	Jenin
Fadi Talib Abdel Raheem	Focus Group of Qalqilya's Farmers	Qalqilya
Nazmi Abdel Raheem Diyab	Focus Group of Qalqilya's Farmers	Qalqilya
Nimir Idwan	Focus Group of Qalqilya's Farmers	Qalqilya
Rami Mohammad Ahmad	Focus Group of Qalqilya's Farmers	Qalqilya
Othman Mahmoud Abu Khdair	Focus Group of Qalqilya's Farmers	Qalqilya
Ashraf Mohammad Abu Samra	Focus Group of Qalqilya's Farmers	Qalqilya
Ali Mohammad Aamir	Focus Group of Qalqilya's Farmers	Qalqilya
Sabir Fayoomi	Focus Group of Qalqilya's Farmers	Qalqilya
Sa'ed Alyonis	Focus Group of Qalqilya's Farmers	Qalqilya
Mufeed Isamil Rudwan	Focus Group of Qalqilya's Farmers	Qalqilya
Yasir Ibrahim Salami	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Rami Basam Hanani	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Ehab Basam Hananin	Focus Group of Foosh Bait Dijin/ Nablus	Nablus

Sa'eed Tawfeek Salih	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Alaa' Ali Salamih	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Adnan Fayik Mahmou	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Marwan Qasim Abu Jasj	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Shahir Abdel Mohsin	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Mohammad Shakir Haj Mohammad	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Akeel Shakir Mohammad	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Sa'ad Riyad Hanani	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Bila Khadir Abu Hnaish	Focus Group of Foosh Bait Dijin/ Nablus	Nablus
Abu Mohamad Rayan	Focus Group of Grapes Farmers	Halhoul
Ali Waleed	Focus Group of Grapes Farmers	Halhoul
Abu Rayan Yousif	Focus Group of Grapes Farmers	Halhoul
Mahmoud Nizar Alhatabih	Focus Group of Grapes Farmers	Halhoul
Motalib Abdel Arman	Focus Group of Grapes Farmers	Halhoul
Abd Mohammad Allateef Karajat	Focus Group of Grapes Farmers	Halhoul
Ismail Abu Fathi Ayash	Focus Group of Grapes Farmers	Beir Ummar
Hassonih Aadil	Focus Group of Grapes Farmers	Hebron
Okab Sakir Okab	Focus Group Of Livestock Breeders   Tubas	Tubas
Sakir Okab Sakir	Focus Group Of Livestock Breeders   Tubas	Tubas
Ahmad Okab Ali	Focus Group Of Livestock Breeders   Tubas	Tubas
Mohammad Rasheed Swalkih	Focus Group Of Livestock Breeders   Tubas	Tubas
Hasanen Hasan Mohammad	Focus Group Of Livestock Breeders   Tubas	Tubas
Abd Allah Abd Alkadir Ateeq	Focus Group Of Livestock Breeders   Tubas	Tubas
Aarif Jabir	Focus Group Of Livestock Breeders   Tubas	Tubas
Abed Alra'oof Bani Oodih	Focus Group Of Livestock Breeders   Tubas	Tubas

Khalid Naji Bani Odih	Focus Group Of Livestock Breeders   Tubas	Tubas
Nazhat Shbaq	Focus Group of Olive Farmers	Safit
Moussa Mostafa	Focus Group of Olive Farmers	Safit
Ayoub Ahed	Focus Group of Olive Farmers	Safit
Mohammed Salah Rayyan	Focus Group of Olive Farmers	Safit
Khaled Abdel Hafez Eshtia	Focus Group of Olive Farmers	Safit
Ashraf Odeh	Focus Group of Olive Farmers	Safit
Fawzan Fawzi	Focus Group of Olive Farmers	Safit
Tawfiq Mohamed Tawfiq	Focus Group of Olive Farmers	Safit
Khaled Mousa Selima	Focus Group of Olive Farmers	Safit
Musa Salim Al - Arrayed	Focus Group of Olive Farmers	Safit
Mahmoud Mohamed Odeh	Focus Group of Olive Farmers	Safit
Mahmoud Salem Al Alreeyed	Focus Group of Olive Farmers	Safit
Samir El Masrye	Focus Group of Olive Farmers	Safit
Entesar Ali Ozrael \ Female	Focus Group of Olive Farmers	Safit
Samir El Masrye	Focus Group of Olive Farmers	Safit
Entesar Ali Ozrael \ Female	Focus Group of Olive Farmers	Safit
Nabeel Abu Shamalah	Ministry of Agriculture - General manager of general planning and researches	Gaza
Mohammad Slaman Salim Awawdah	Focus Group of Farmers   Gaza	Gaza
Mesbah Salim Khader Al - Sawarkah	Focus Group of Farmers   Gaza	Gaza
Bilal Mahmoud AL-Nabaheen	Focus Group of Farmers   Gaza	Gaza
Zuheir Abu Eitewy	Focus Group of Farmers   Gaza	Gaza
HusamNofal	Focus Group of Farmers   Gaza	Gaza
Abd Al-Rahman Nabaheen	Focus Group of Farmers   Gaza	Gaza
Abd Al-Rasool Abu Saeid	Focus Group of Farmers   Gaza	Gaza
Saeid Zaghrour	Focus Group of Farmers   Gaza	Gaza
Adnan Younes	Focus Group of Farmers   Gaza	Gaza

## Annex 4. Synthetic view of interviews implemented during the study

**Main local NGOs, at national level, with historic anchorage, relays in governorates, capturing most of funding and programs from international bodies, participating in policy making, sharing ambiguous relations and partnership with MoA**

Organisation	where	Scale	creation	status	Value chain	main activity	nb producers / members / clients	Agroecology	pluriactivity	Farms differentiation criteria	relations with international organisations	relations with national organisations
Economic and Social Development Center of Palestine (ESDC)	Ramallah	national	2003	NGO	diverse	diverse	540 Societies	Yes, organic agriculture	not cited	Size and income	FAO, OXFAM, VECT, EVAP, OCHA, IICA, AECID, EU, UNDP, etc.	Private sector's associations and cooperatives
MA'AN Development Center	Ramallah	national	1989	NGO	diverse	diverse	-	Yes, environmental and organic agriculture	Yes, projects targeting global family livelihood	Size, income, family managed	Many of them (exemple of food collaboration with Austria cooperation), investing the young generation, enhancing NGOs/MoA collaboration	Private sector's associations and cooperatives
The Palestinian Agricultural Relief Society (PARC)	Ramallah	national	1983	NGO	diverse	diverse	-	Yes, organic and fighting against toxic products	not cited	Size, income, productivity	OXFAM, SIDA, AECID, DEE, UNDP, Luxembourg, etc.	PALTRADE and most of the local NGOs and cooperatives
Union of Agricultural Work Committees	Ramallah	national	1986	NGO	diverse	diverse	-	yes, mostly organic farming	not cited	Farming system, income, integration to market, size	most of them	Private sector and other development NGOs
Union of Agricultural Work Committees (UAWC) Gaza branch	Gaza	local	1986	NGO	diverse	diverse	13000	yes, organic	not cited	size and familial management	most of them	MoA and others NGOs

Organisation	Focusses	strengths	weaknesses	threats	opportunities
<b>Economic and Social Development Center of Palestine (ESDC)</b>	specialized in the development of cooperative business model (purchase and sales), social economy, training, technical support, resource management, cooperative credit etc.	Innovations interesting funders, large networks relying on experienced associations	high credit rate in private sector, no competition, high inputs prices, fragmentation of land, insufficient services from the MoA, no compensation, lack of market places	cut of fundings for political reasons, Israeli dumping, sanitary impacts of conventional agriculture, poor evolution in law	professionalisation and internationalisation of collective action, cooperative societies development, quality for better markets (thyme as example), greenhouse perspectives, medicinal plants
<b>MA'AN Development Center</b>	training, innovation and demonstration (offering production models), value chain approaches (from production support to marketing),	Agriculture as social global project (cultural, political and environmental), the availability of the MA'AN environmental research unit, NGOs good skills and reputation	MoA focus on large-scale farms and has finally low means, confusion between charity and collective action, weak cooperative offer in the market, agroecological inputs are not known, projects temporality	Difficult coherence between political and funding agenda, NGO dependency, political context (MA'AN has been stigmatized as funding terrorism), and fragmentation (20 in the right size), funding competition (with Syria notably)	Marketing as the big challenge, linking smallholders to merging marketing companies (CANAAN), organic as an option
<b>The Palestinian Agricultural Relief Society (PARC)</b>	Strengthen economy of small farmers, food security, collective action, advocacy and lobbying, fight against occupation, put pressure on PA, support young employment, focus on rights, not on needs	Existing NGO network with high potential but not coordinated, quality and safe accreditation exist to support local farmers (to be more used)	MoA has not employees, but no fund and infrastructures to help farmers, civil society has no state jobs. Occupation, lack of vision of councils. Lack of stakeholders coordination (example of the insurance failure)	Pursuit of the settlements, MoA facilitating private sector instead of NGOs (even if private sector implication is seen positive), lack of confidence in cooperatives, the reluctance of youth to agriculture, and fragmentation	create infrastructure and development projects to protect and from occupation, export and linkages between modern farmers and traders perspectives, (a possible regional agenda (Lebanon and Syria?), short circuits
<b>Union of Agricultural Work Committees</b>	Land issues (rehabilitation and reclamation), water resources, supporting production and marketing, advocacy and lobbying, organizing farmers (with the unions), networking with universities, youth empowerment	Existing statistics, but to be improved, coordination between local institutions is in progress, dynamic local market (with high potential), existing reclamation processes, existing plans and strategy for insurance implementation	Existing policies not implemented, at global and sectorial levels, extension (important point), lack of sanitary and health attention, lack of insurance	The decrease of agriculture, changes in international bodies role, and fragmentation	Land development programs in Area C, International support through aid via Campesina (complementing delaying international civil society), MoA can do better in extension, better and stronger interventions in markets, standards adapted to Palestinian production advantages and intrinsic quality, perspectives of differentiated policies, local market regulation and enhancement
<b>Union of Agricultural Work Committees (UAWC) Gaza branch</b>	compensation, resilience, self sufficiency, political role of land cultivation	Human capital, collection action, cultural assets	lack of coordination, lack of fundings, occupation, economic locus	Urban sprawl, fragmentation, farms debt, pollution	NGOs and associations density, alternative markets places (baskets, organic), green houses

**Local or sectorial NGOs, concentrating on a limited number of goals and focuses, looking for field anchorage and partnership with specialized cooperatives and unions, trying to catch niche markets with international bodies**

Organisation	where	Scale	creation	status	Value chain	main activity	nb producers / members / clients	Agroecology	pluriactivity	Farms differentiation criteria	relations with international organisations	relations with national organisations
Palestinian Livestock Development Center	Tubas	local	2015	NGO	livestock	service for livestock	-	No	not cited	Size and income and nature of the herd	Oxfam (main partner), SIDA, FAO, WWF, etc.	Most of the livestock concerned organisations
Palestinian Farmers Association - North Gaza Governorate	Gaza	local		NGO	diverse	advice	140	No	not cited	size	not cited	MoA, MoE and big NGOs
Breeder of the Livestock and agricultural Society	Gaza	local	2003	NGO	livestock	advocacy and training	470	No	not cited	size	FAO	MoA, MoE and big NGOs
Poultry Farmers and Rural Development Association	Gaza	local		NGO	Poultry	diverse	100	No	not cited	size and familial management	not cited	not cited
Arab Center for Agriculture Development (ACAD)_ The credit Company	Ramallah	national	1988	NGO	diverse	credit	-	No	not cited	Size, irrigation, family management	not cited	MoA, cooperatives, big NGOs
Near East Foundation	Nablus	international		NGO	diverse	advice and consultancy	-	No	Yes, but seen as a constraint	Size and income	UNDP, WFP, UNICEF, USAID, MEPI, and the Government of Sharjah	Private Sector

Organisation	Focusses	strenpts	weaknesses	threats	opportunities
Palestinian Livestock Development Center	livestock support (veterinary, mobile clinics, services, artificial insemination, rural development programs, training, research, innovation in dairy)	Existence of a strategy of the MoA, existence of a sheep council, good alliance with MoA, available experiment (cheese), strong infrastructures	Farmers' dependence on inputs, high prices of inputs, no clear policies, civil society rapid changes, herd mostly in zone C, constraints for exporting, limited diversification (just a small number of products and bad quality), weak extension services	less young people interested in agriculture, weak ties of the sheep council, donors trying to work with private rather than COPPA, decline of funding, competition with other situations (Syria)	Becoming independent from donors, fodder factories, market potential for meat and milk, cultural change regarding credit, potential of laboratories, perspectives of insurance for livestock, large vaccination programs
Palestinian Farmers Association - North Gaza Governorate	protection of farmers, advocacy, justice support to farmers, and restoration		lack of funding, no insurance, access to trading ports	no policies dedicated to small family farms	vertical agriculture, connecting to energy, export potential
Breeder of the Livestock and agricultural Society	advocacy for livestock, training, technical support	Collective action	No insurance, weak access to credit and inputs, and fragmentation, low selling prices, lack of data on livestock	Occupation	Markets (quality and political)
Poultry Farmers and Rural Development Association	support for modern poultry farms construction and maintenance	development needs	lack of political support, occupation and access to input	price volatility	markets organisation (policy leverage)
Arab Center for Agriculture Development (ACAD)_ The credit Company	selected loans for all type of farms	High paying of rate, high rate of success, against pessimistic views	No compensation, traders' control over peasants	lack of enthusiasm in face of political problems, lack of support from the CPA	new markets based on quality
Near East Foundation	support of farming innovation, quality, irrigation systems, in a global livelihood and reduction approach, market and professionalism oriented	International network (even in Israel (NE Foundation), better infrastructure today in WB	Lack of funding for action just for wages and single functioning, lack of capacity of sectorial councils, lack of extension services, lack of confidence in insurance systems	Preference to collective marketing instead of organisational institutions, land fragmentation	Changes occur more from large-scale farm, low capacity allowing to change farmers' mind and behaviour, their traditional manners, targeting medium-size farmers

**Cooperatives and unions, with 2 categories, those with clearly defined marketing strategies, highly specialized and integrated in a value chains (mostly toward export), with stable and renown leaders, those in difficulties, born from a time-limited project, with difficulties to maintain active members, maybe well connected to MoA, but without clear opportunities**

Organisation	where	Scale	creation	status	Value chain	main activity	nb producers/ members/ clients	Agroecology	pluriactivity	Farms differentiation criteria	relations with international organisations	relations with national organisations
<b>Agricultural Cooperative Society for strawberry, vegetables and flowers.</b>	Beit Lahya	local	-	cooperative	horticulture	production and marketing	800	No	not cited	family, size	-	MoA
<b>Agricultural Cooperatives society in Beit Hanoun</b>	Beit Hanoun	local	1965	cooperative	horticulture	production and marketing	190	No	not cited	income, size	-	MoA
<b>Palestinian Farmers Union</b>	Ramallah	national		union	diverse	avocacy and training	11000	Yes	not cited	Size, tradition and family management	Most of them	Private sector's associations and cooperatives
<b>The Palestinian Peasants Union</b>	Ramallah	national	1991	union (but works as an NGO)	diverse	avocacy		No	not cited	Size	IFAD, AECID, UNDP, Oxfam	

Organisation	Focusses	strenpts	weaknesses	threats	opportunities
<b>Agricultural Cooperative Society for strawberry, vegetables and flowers.</b>	training, transport, packaging, commercialisation	diversity of collective action in marketing,	occupation, lack of mobility, high prices of inputs, lack of insurance	sanitary problems, land fragmentation	alternative energy, empowerment, or greater sensibility to sanitary risks, more collaboration between producers, production diversity
<b>Agricultural Cooperatives society in Beit Hanoun</b>	training, extension, export to arabian countries	existing production and potentiel, experienced organization	non compensation and insurance, lack of financial support to agriculture, no storage and transformation process	worst quality of product, land fragmentation	freezing vegetable projects
<b>Palestinian Farmers Union</b>	Defend all farmers interests before official bodies, reviewing and influencing laws and policies, protection and from occupation	More and more members in unions, success in influencing law and policies (end on the income law for smallholders), international solidarity for Palestine	Union are yet weak (lack of coordination in farmers representation), no compensation, too many small associations/cooperatives, lack of union representation and insurance funds	competition with settlement agriculture, monopolization of agriculture value chain (al pressure from national companies as well, like AZIZA), sanitary problems of chemical uses, land fragmentation	active market monitoring by PA to fight israel tentative to break initiatives, perspectives in areas C
<b>The Palestinian Peasants Union</b>	work under the PLO authority and MoA, support bedouin communities, support to the council, implement development projects, advocacy, improving law	A solid and numerous associations networks, local and international	Inputs prices and quality of imports by Israel) Loans in term of halal and haram creating higher rates for small farmers, bad local packaging	competition between large companies and states on the insurance market, land fragmentation, the lack of coordination between too many stakeholders	Insurance innovative systems, compensation for occupation, dialogue with large and small scale farmers, collective appropriation of land's value



**Private or public-private (considering their funding and business models) bodies, focusing on a value chain, specialized in trading but seeking more integration along the value chain, both new partners and new competitors for civil society bodies**

Organisation	where	Scale	creation	status	Value chain	main activity	nb producers / members / clients	Agroecology	pluriactivity	Farms differentiation criteria	relations with international organisations	relations with national organisations
Agricultural Compensation and Insurance Fund	Ramallah	national		company	diverse	insurance	-	No	not cited	-	Not cited (should be?)	MoA, MoE, EU
Advisor in Near East Distribution & Marketing	Ramallah	international		consultant	olive	advice	-	No, conventional agriculture promoted	No, claim for specialization	income, size	-	-
AL REEF for Investment and Agricultural Marketing	Ramallah	national	1993	company	diverse (focus on dates and olive)	marketing	-	yes, including organic	not cited	size and professionalism	FAO, Fairtrade and militant organisations	Cooperatives mostly
Arab Center for Agriculture Development (ACAD)	Ramallah	national	2013	Fondation	diverse	advice and advocacy		Yes	not cited	Size, irrigation, family management	-	MoA, MoE, big NGOs, cooperatives
ASALA for Credit Development Company	Ramallah	national	1997	company	diverse	credit	1300 loans (2018)	No	Yes (it helps very much)	Size	-	MoA
CANAAN PALESTINE Fair Trade	Jenin	international	2004	company	diverse	trade	1700	yes, mostly organic	not cited	Size		MoA, MoH, MoE, some cooperatives, ARC
Green Olives Mountain Company	Ramallah	international		company	olive and dates	trade	-	Yes, organic	Yes, but seen as a constraint		FAO	Cooperatives
New Farm Processing and Marketing Company	Ramallah	international		company	diverse (milk, cheese, olive, thyme)	trade	-	yes, help farmers for organic certification	not cited	-	FAO, MoE, MoA	Cooperatives and unions, private sector
Palestine Trade Center (PALTRADE)	Ramallah	international	1998	NGO	diverse	trade	-	yes, targeting organic markets, green economy programs	not cited	Size and income	Oxfam, USAID, EU, AFD, etc.	Private sector's associations and cooperatives
Palestinian Agricultural Credit Institution (PACD)	Ramallah	national	2015 (but not started yet)	administration (semi-governemental)	diverse	credit	-	No	not cited	-	FAO, UNDP	MoA, MoE
REEF Finance	Ramallah	national		NGO	diverse	credit		Yes, supporting organic projects	Yes, supporting secondary activity projects	Size and incomes	Islamic development bank, CARE, Italian loans, XFAM	Private sector and other development NGOs

Organisation	Focusses	strengths	weaknesses	threats	opportunities
<b>Agricultural Compensation and Insurance Fund</b>	Insurance and compensation, risk management	Relevant farmers' associations	Low level of development of insurance mechanisms, lack of experience	dependency of compensation funds, high level of risk (unstable situation), fragmentation of the households, competition with traditional systems, occupation risk and costs	interest of the international community, computerization of the system (with potential other applications)
<b>Advisor in Near East Distribution and Marketing of Expert in the Live Sector</b>	rapid modernization of agriculture, referring to Israeli models	existing technicians farmers' organizations	small size of the farms, lack of public market and transport infrastructure, lack of large marketing companies	occupation and bad access to external markets	development of modern large farms (already done in occupied WB, Israel or AZIZA)
<b>ALREEF for Investment and Agricultural Marketing</b>	organizing cooperatives training, quality, marketing, fair trade	Previous positive experiences (Qalqilya or Shahd or Doualina), previous private investments (PADICO, Sinokrot, Furat, etc.)	High cost of inputs, negative historical experiences	climate disasters with compensation	Fair and organic local markets, more collective selling in shopping centers, separate production and marketing sectors, coalition of marketing companies
<b>Arab Center for Agriculture Development (ACAD)</b>	support beside credit action from the NGO part support to cooperatives, training	existence of relevant NGOs supporting agriculture	too much focus on live value chain, lack of continuity in cooperatives actions, and fragmentation	Lack of support, high level of risk without compensation	collective selling strategies supported by policies (protection), connexion with factories (livestock in Nablus)
<b>ASALA for Credit Development Company</b>	credit supporting the NGO Asala, supporting women in agriculture and more broadly in economic activities	-	Too short terms, too strict conditions of access to credit (garanty), agriculture is too risky activities, specially in Palestine today	Seasonality is not taken into consideration when dealing with credit	training demands, coordination of credit companies and institutions by the MoA (to be confirmed)
<b>CANAAN PALESTINE Fair Trade</b>	selling high quality products, organic and fair trade for export, follow up the quality in the field	relevant network of relevant associations and stakeholders, already experiment innovation with high potential (Freekeh)	difficulties to produce high quality in large amount, weak knowledge on agriculture	fragmentation of land, climate change (particularly on live production)	availability of export companies, high prices on local markets as well, room for manoeuvre in productivity
<b>Green Lives Mountain Company</b>	Dates trading (Indonesia), retailing (Baladi Shop), support to small farmers	Existing cooperative networks	High cost of inputs, high production costs, small quantities, high transaction costs and low quality	Political constraints, no possible reclamation in area, increasing cost of transport (Jordan)	Improve quality and quantity (to play on markets)
<b>New Farm Processing and Marketing Company</b>	Collect and market products (local and international markets), administrative supports to their producers and cooperatives (with international fundings and projects)	Company certified (ISO, fair trade, organic, halal, etc.) like many others	Weak competitiveness of Palestinian products, low quality and homogeneity, slow administrative reactivity	Increasing transportation costs (linked to occupation), changes in taxation (local and in Israel)	artificial insemination for milk productivity, new packaging technologies, systemic advocacy from NGOs, better prices information
<b>Palestine Trade Center (PALTRADE)</b>	leading the development of exports, providing export tool to Palestinian operators (an agriculture branch), administrative supports, local and international campaigns, market studies	high demand for dates and herbs of high quality, existing trademarks (but need to be more distinctive)	too high selling prices compared to Israel and even Jordan, lack of irrigation schemes, non homogenous transit procedure in the region	be careful not to focus on local market! it's too small, lack of coordination along the value chains	creating more export companies to relay small farms production, owned or not by cooperatives, improve value chains reactivity, in particular transport and cooling, the Jordan market
<b>Palestinian Agricultural Credit Institution (PACD)</b>	offer an alternative to private credit, cover the risks for banks, propose low interest rates	-	Insurance and credit linked system (PADRRIF) is yet inoperant, without compensation, risks too high	administrative delays in the implementations (including due to occupation policies), lack of demand in alternative administrative centred system, and fragmentation	The status of PACD is innovative and can make a change
<b>REEF Finance</b>	Funding small, micro and medium projects, 80% in agriculture, linked with PARINGO, targeting employees and cooperatives, support and help project, connection to traders and industries, marketing for borrowers	REEF failure less than 2%, known NGO... like some others, proximity	High inputs prices, small markets, lack of institutional support	Price volatility	More voluntary actions in the area, collective marketing, shorten the commercial circuits (both with traders and last consumers)

## Ministry of agriculture and councils (oil and vegetables)

Organisation	where	Scale	creation	status	Value chain	main activity	nb producers / members / clients	Agroecology	pluriactivity	Farms differentiation criteria	relations with international organisations	relations with national organisations
Agricultural Marketing Department Director (MoA)	Ramallah	national		administration	livestock and live as priorities	administration	-	Yes	Not cited	size and amount of production, destination of products for the local market	All of them	All of them
Agricultural Research Center (MoA) Jenin	Jenin	national		administration	diverse (focus on wheat and watermelon and sheep)	research	-	Yes	Not cited	Size and bad performance	Not cited	
Cooperative Work Authority (MoA)	Al Berih	national		administration	diverse	support	-	No	Yes, but as a constraint for cooperative managers)	Size	FAO (only cited)	Private sector's associations and cooperatives
Department of Agricultural Lands (MoA)	Ramallah	national		administration	diverse	administration	-	Yes, organic agriculture	Not cited	Size and irrigation	IFAD, FAO, etc.	Private sector's associations and cooperatives
Director of Field irrigation Department (MoA)	Ramallah	national		administration	diverse	administration	-	Yes, promotion of organic agriculture	Yes, but seen as a weakness for agricultural professionalisation	Size, irrigation and incomes	FAO, IICA, GIZ, UNDP, CARE	Private sector's associations and cooperatives
General Manager of Planning and Policies (MoA)	Ramallah	national		administration	diverse	administration	-	Yes, regarding natural resources management	Not cited	Size, but rather income strategy (referring to PALTRADE study)	Most of them	Private sector's associations and cooperatives
Poultry Department (MoA)	Ramallah	national		administration	Poultry	administration		No	Yes, as an opportunity	Size and technical choices	Not cited	Unions and cooperatives, specialized in poultry
Ruminant Section Extension Department (MoA)	Ramallah	national		administration	cows, sheep, goats	administration		No	Not cited	Size	FAO, OXFAM, CARE	Most of the big local NGOs
Palestinian Olive Oil Council	Ramallah	national	2004	Administration (semi-governemental)	olive	organizing the sector	16000	No	Not cited	-	FAO, Oxfam	MoA mostly, but local and national organizations (in their board)
The Palestinian Vegetables Council	Ramallah	national	2011	Administration (semi-governemental)	horticulture	organizing the sector		No	Not cited	Size	OXFAM, FAO	PARC and most of NGO and cooperatives of the sector (by construction)

Organisation	Focusses	strenpts	weaknesses	threats	opportunities
<b>Agricultural Marketing Department Director (MoA)</b>	Agricultural political function, quality of the products, protection against occupation	existing professionals at each stage of the value chain	Agriculture is not the priority, lack of support to implement radical changes, lack of data on price and market opportunities	No implementation of existing trade agreements (with EU and Jordan)	changes in transformation processes and markets organizations, fair trade development
<b>Agricultural Research Center (MoA) Jenin</b>	agronomy, quality, dissemination, seed bank and seed improvement (wheat)	Traditional knowledge, farmers organizations for dissemination, universities	Occupation and lack of budget and staff (restraining research), cooperatives avoid their principles	Israeli research blocking Palestinian needs. A strategy exists and is fine, but not implemented, fragmentation of the land	Existence of pioneer farmers willing to innovate, perspectives with medicinal herbs and strawberries
<b>Cooperative Work Authority (MoA)</b>	supervision and support to cooperatives administration and management	good products to sell well valorized, administrative possible simplifications	lack of confidence in cooperative in face of the private sector, lack of support to small holders, the discrepancy between the existing frame and their poor implementation	discouragement of leaders, and fragmentation and its impact on poverty, occupation and the uncertainty it brings, the control of big families	marketing centers, price orientation, combining market and other services, more weight to cooperatives and unions in policy making, clusters' development
<b>Department of Agricultural Lands (MoA)</b>	Regulate fertilisation and pesticides, enhance production and protection (including against occupation) through standards production	A potentially attractive situation for international donors, great room for manoeuvre regarding today's situation	Low registration of land, financial limitation of small holders, lack of information on MoA actions, high cost of inputs	Reclamations of land in the area C, dangers in the areas of settlements, and fragmentation, existence of land without owners	Programs for young and less farmers, conservation agriculture, and collection of land owned by public authorities, partnership with private sector for organic inputs (Thanaba)
<b>Director of Field Irrigation Department (MoA)</b>	Increase irrigated land and improve agriculture performances	Existing programs (tank distribution, pipeline and digging projects (FAO), success in Palestinian settlements (returns to villages)	Occupation limiting room for manoeuvre, excessive use of pesticides and plastic, weak water waste management (including from Israeli settlements)	85% of water resources under Israeli control, over pumping and negligence since 1967 and still no, palm tree development, and fragmentation	Rehabilitation high potential, perspectives from zones A and B (water wells) through reviewed legislation and clarification
<b>General Manager of Planning and Policies (MoA)</b>	Define agriculture policies, support small holders and their role in resistance to occupation (planting uncultured land), seeding	The competences and mandate of the MoA (!), cross sectorial approaches to development and agriculture, raise of exportation (2014-2017)	the political situation and occupation, difficulties in exporting products, submission to external rules and trade, division of Palestine stakeholders, no compensation private sector constraint	climate change (drought), cheap importations, and fragmentation (cultural aspects), food insecurity, under representation of small farmers (only companies)	More attention to agriculture in the recent strategy plan of PA, including more environmental policies, market of high quality products in short circuits
<b>Poultry Department (MoA)</b>	Extension, supervision and statistics, monitoring eggs incubator, coordination of the value chain, defining license conditions, promoting technical models in open and closed farms	Agreements existing between traders and farmers, cooperative allow collective inputs furniture	Difficulties in implementing laws and regulations, uneven farmers' organization, inputs and investments (closed farms) costs	The changing numbers of animals a rapid development in 2016, but decrease since 2016, but prices volatility, competition with Israeli value chain, traders domination in marketing, occupation policies in the area C	Jobs opportunities in intensive farms, pluriactivity possibilities (join job in Israel and a productive poultry farm)
<b>Ruminant Section Extension Department (MoA)</b>	Modernizing breeding (barns and practises), following and facilitating projects (NGOs and international institutions)	Existing milk market (both for cows and little ruminants), efforts in infrastructures (irrigation and roads), new financial institutions	Lack of pasture, low productivity, animal diseases, traditional breeding (seen as a weakness but with advantages in quality)	high density (sheeps), funding volatility, occupation and fragmentation of land	High potential of modern "barns" and of adoption of simple innovations (veterinary services and better feeding), quality improvement
<b>Palestinian Live Oil Council</b>	strategic plans, representing the value chain factors, protecting trees, knowledge production, promoting oil consumption	216 cooperatives, with diverse success, stable export circuits, tradition agronomic practises	A focus on funding research, lack of temporary workers, high cost of insurances, ancient and risky practises, bad storage conditions	Less members in cooperatives, workers going in Israel, and fragmentation	High market potential, specifically exports, better use of the council taxes (uses 11 million NIS), technical simple tools exist, seasonal management improved
<b>The Palestinian Vegetables Council</b>	Value chain better organization, networking, lobbying, export, representation of the sector in international exhibitions	the existence of the agricultural disaster risk reduction and insurance fund (even if it's not fully operational), good knowledge on the problems	The council are "frozen" because of political division and lack of competences and law, discrepancy between councils in terms of functioning, cooperative leaders having individual ambition, lack of model of compensation and insurance in the Arab world	Israeli domination on markets, competition between the councils and the MoA, and fragmentation, occupation policies in the area C	Council actions in the insurance (a bottleneck), restructuring of cooperative unions through associations, social and educational programs linked to agriculture, mentoring and consultation