The Effect of Agricultural Policies on Promoting Palestinian Farmer Resilience

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Abstract

The purpose of the study is to investigate the effect of agricultural policies on promoting the resilience of Palestinian farmers, as the study followed the quantitative and qualitative approach that relies on studying the phenomenon as it exists in reality and is concerned with describing it as an accurate and quantitative and qualitative expression. To achieve the objectives of the study, an interview was designed and directed to a sample made up of five experts specialized in agricultural affairs. A questionnaire was also designed and directed to a sample of (150) farmers. The results of the study revealed that the impact of agricultural policies contributes to strengthening the steadfastness of Palestinian farmers, with an average of (3.4), with a medium degree. Sufficiency for Palestinian farmers. In light of the results, the study recommended the need for the Palestinian government to increase the share of agriculture in the general budget, since the agricultural sector is in a dangerous condition and must be taken care of, and the need to encourage farms and notify them of safety by protecting the market, by preventing the entry of non-local products, especially those of the Israeli occupation (being competition For local products, by lowering their prices) to ensure that the farmer sells his crops.

Keywords: agricultural policies, adequacy of agricultural policies, effectiveness of agricultural policies, challenges facing agricultural policies, farmers’ satisfaction

1. Introduction

Siege, confiscation and crossing are terms occupying the mind of Palestinian farmers; the Palestinian farmers are struggling to keep their profession and supporting the economy of their products. As agriculture is a fundamental pillar of economic and social development and a major contributor to achieving food security and fighting poverty, in addition to its direct contribution to improving and preserving the environment, an important provider of industry requirements and a consumer and user of inputs and services from other sectors. The area of the Palestinian lands is 6207 square kilometers (the area of the West Bank and Gaza Strip), which is part of the 27,000 square kilometers of historic Palestine, which Israel occupied after the 1948 disaster.

1.1 Theoretical Framework

1.1.1 Status of Agriculture in Palestine

The agriculture sector is one of the old and most important sectors as well as one of the struggling pillars against occupation, this sector was fought by the occupation authorities, causing a lot of damages for farmers and the workers started to abandon the sector because of the problems and their attempts to find better jobs (Wafa Agency).

The drawback of workers: According to the report of the Palestinian central statistics office (Palestinian economy performance of 2018) issued in 2019 the number of workers in the sector is 51,55 workers, 37,000 of them in the west bank and 14,55 in Gaza. While, the numbers were in 2013: 82,000, 59,000 in the west bank and 22,800 in Gaza, as shown in the following table

| Year | West Bank | Gaza | Total |
|------|-----------|------|-------|
| 2018 | 37,000    | 14,500 | 51,500 |
| 2017 | 39,300    | 14,900 | 54,200 |
| 2016 | 44,200    | 15,700 | 59,900 |
It is noted that there is a continuous decrease in the number of workers in the sector from one year to another, as seen in the above table.

**The low of daily wages:** According to the Palestinian Central Bureau of Statistics report "The Performance of the Palestinian Economy, 2018" issued in May 2019, the real average daily wage in the agricultural sector in 2018 was about 47.0 shekels, an average of 73.1 shekels for a worker in the West Bank and 21.1 shekels for a worker in the Gaza Strip, and this shows the low wages in the agricultural sector, particularly in the Gaza Strip, see the following table:

| Year | West Bank | Gaza | Total |
|------|-----------|------|-------|
| 2018 | 73.1      | 21.1 | 47.0  |
| 2017 | 65.2      | 24.0 | 44.3  |
| 2016 | 62.2      | 25.0 | 44.7  |
| 2015 | 62.3      | 23.7 | 45.9  |
| 2014 | 55.1      | 23.7 | 43.0  |
| 2013 | 52.4      | 23.0 | 37.0  |

**The low contribution in the total local income:** According to the Palestinian Central Bureau of Statistics report "The Performance of the Palestinian Economy, 2018" issued in May 2019, the contribution of agricultural activities to the GDP reached 4.8% in the Gaza Strip compared to 2.6% in the West Bank, which is a low percentage compared to other sectors, especially the services sector. And the trade sector and this is what the following table shows:

Knowing that the contribution of this sector totaled in 1970s about 36% then decreased to 25% in 1980s, in 1994 more decrease happened to 13.4%, this goes on till 2018 totaling 3%, as shown in the following table:

| Year | Rate |
|------|------|
| 2018 | 3.5% |
| 2017 | 2.8% |
| 2016 | 3.1% |
| 2015 | 3.4% |
| 2014 | 3.8% |
| 2013 | 4.5% |
| 2009 | 5.5% |
| 2008 | 5.7% |
| 2007 | 5.6% |
| 2006 | 5.8% |
| 2005 | 5.5% |
| 2004 | 7.1% |
| 2003 | 6.8% |
| 2002 | 7.3% |
| 2001 | 8.7% |
| 2000 | 10%  |
| 1999 | 10.9% |
1.1.2 The Challenges of Agriculture Sector in Palestine

Problems and constraints caused by the Israeli occupation (Abd al-Rahman, 2007, p. 276): although the problems and constraints facing Palestinian agriculture due to the impact of the occupation and its daily practices cannot be identified, the main ones will be identified: The construction of the wall and the resulting difficulties and isolation of agricultural land, the destruction of Agriculture and infrastructure, the inability of the Palestinian people to manage their natural resources as a result of Israel's confiscation of land, the closure of a large part of it as military areas, the establishment of settlements and the construction of bypass roads, in addition to the continuous looting of Palestinian water, Palestinian, preventing pastoralists from accessing natural pastures.

Problems related to natural and environmental resources (krzem, 1999, p. 9): limited water and agricultural land and increased competition from other sectors; soil erosion, degradation of its properties and low productivity; improper use of chemicals, in particular pesticides; deterioration of the quality of irrigation water due to over-pumping; degradation of vegetation cover and wildlife habitat due to overgrazing; urban and urban encroachment and indiscriminate construction at the expense of agricultural land.

Technical problems and constraints: poor agricultural research infrastructure, inadequate rehabilitation of experiment stations, severe lack of laboratories, equipment and equipment, lack of researchers and trainers to cover the required agricultural fields, limited capacity of Extension, plant protection and veterinary services, poor infrastructure for the agricultural marketing sector, weak agro-food manufacturing activities, lack of and sometimes conflicting data and information on agriculture, and weak agricultural technical capacity.

Problems and obstacles of a social and economic nature (Al-Khatib, 2010, p. 8): small and dispersed agricultural holdings and widespread ownership, which reduced productive efficiency, low yield from agriculture and high risk factor, which led to the reluctance of many to work in this sector, in addition to lack of agricultural investments, lack of agricultural and rural finance system, and weak collective and cooperative work.

Institutional and legislative problems and obstacles: the lack of harmonization of agricultural laws and legislation, the absence of an agricultural insurance system, compensation of farmers against natural disasters, conflict and duplication between relevant institutions in the agricultural sector, and weak capacities.

Lack of support and external assistance: it is logical and obvious that the agricultural sector, with its components and conditions, should receive the attention and support of donor countries and international institutions and give it a high priority on their priorities, but what really happened is the opposite, and the agricultural sector, in particular the Ministry of Agriculture, was making double efforts to obtain funding or technical assistance.; The direct relation of Agriculture to land and water, the political sensitivity of these two elements, in terms of sovereignty, confiscation and settlement, the fact that donors regard agriculture as a water-depleting sector and that the efficiency and return of water use in agriculture does not justify its support, the priority of allocating water for other uses, especially for drinking, the general tendency of donors at a certain stage to focus support outside the institutions of authority, especially the aspects directly related to services and support, and the willingness of donors to implement projects through intermediary institutions (United Nations, foreign non-governmental organizations)....Etc.), which usually envisages achieving their priorities and maximizing the benefit to them, avoiding projects that constitute For them, it is risky or difficult to implement, or their media and propaganda effects are not rapid, and the efficiency of the delivery and implementation of donor-funded projects is poor, as these projects are not implemented directly, but through many Palestinian and foreign intermediary institutions, which thus erodes those allocations and reduces efficiency. The amount of international support for agricultural projects and their distribution during the period 1999-2005 did not exceed 135 ٌـmillion, or twenty million dollars a year, and if we take into account the efficiency of delivery and disbursements, the amount of these amounts to farmers is very modest.

Absence of internal support: Agriculture has always been one of the most complex topics in the international negotiations on agriculture, and the subject of agricultural support is the node in front of the progress of the various rounds of committees and beyond, due to the fact that the countries, especially the rich ones, are trying to
support and impose protection on local agricultural production for several considerations, which in In most countries, it increased by varying percentages, with Canada increasing by 46%, the European Union by 8%, Mexico 96%, Turkey by 223%, and the United States by 61%, during the years 1995-2005.

Compensation, loans, investment finance and agricultural insurance (Sabri, 2008, pp. 75-76): Palestine may be the only country without any specialized institutions or funds to support agriculture in times of disasters or to provide loans and seasonal short-or long-term agricultural finance, as well as for agricultural investment, as well as agricultural insurance.

1.2 Statement of Purpose

Palestinian government slogans to support and stabilize farmers in their land, to protect them from settlement ghouls and to encourage one of the most neglected productive sectors remained in the framework of the review, especially since agriculture's share of the PA budget does not exceed 1%, while this sector contributes about 4% of GDP. Not only that, but the Palestinian farmer finds himself forced to leave his land, under the weight of non-viable Palestinian policies and competition for Israeli products supported by the occupying government. In contrast to the Israeli occupation policies that favored settlers, the Palestinian farmer does not find any kind of support and encouragement; on the contrary, he finds himself between the jaws of the grip of occupation and the grip of Palestinian tax policies. The Palestinian government is required to sense the danger, and to move from the circle of slogans to the square of actual action, through real policies that encourage farmers to survive and push those who have abandoned the land to return to it (Tawil, 2019; Aman, 2019).

The statement of purpose is represented in answering the following question: what is the extent of Agriculture polices effect in promoting the relicense of the Palestinian People?

1.3 Study Questions

1. What is the effectiveness of agriculture polices in promoting the relicense of the Palestinian People?

2. What is the sufficiency of agriculture polices in promoting the relicense of the Palestinian People?

3. What are the challenges facing the execution of agriculture polices?

1.4 Study Hypotheses

- There is a significant statistical relationship (α=< 0.05) between agricultural policies and their adequacy due to variables (gender, age group, scientific qualification, years of experience).

- There is a significant statistical relationship (α=< 0.05) between agricultural policies and their effectiveness due to variables (gender, age group, scientific qualification, years of experience).

1.5 Significance of the Study

The importance of this study stems from its consequent scientific and practical contributions, as illustrated by the following points:

- Identify whether the Ministry of Agriculture has exercised its role efficiently and effectively in developing agricultural policies that support the Palestinian farmer and enhance his resilience.

- Try to see if agricultural policies are formulated in a clear way, whether they are disseminated and raise awareness of farmers and everyone who cares about the agricultural sector.

- Reach a conclusion: the degree to which agricultural policies contribute to enhancing the resilience of Palestinian farms.

- To identify the extent to which the Israeli occupation destroyed the Palestinian agricultural sector.

- Identify the distortions and shortcomings of agricultural policies implemented on the ground.

1.6 Study Limitations

- Place Limitations: some agriculture foundations in Ram Allah And al-berra, as well as farmers in the west bank (Jenin, Beit Lahm, Hebron, Bablus, Tobas, Jericho, Qalqelia).

- Human Limitations: Several experts in agriculture and a sample of west banks' farmers.

- Time Limitations: this study was conducted in the second semester of 2020/2019.

- Objective limits: the results of the current study are determined by the tool (corresponding and resolution), which was used in the collection of data in terms of truthfulness, sample selection, and the method used for this study.
1.7 Definition of Terms

The following terms are defined as follows:

**Agriculture:** The totality of human settlement of land, crop cultivation and animal husbandry" (Saleh, 2012, p. 29; Harun, 2000, p. 19).

**Policies:** A government report or test of action or inaction (Anderson, 1998, p. 14), which also defines the framework of action of each individual leading to a state of harmony and coordination between individuals (Abu Hattal, 2009, p. 9), and finally a set of phenomena and movements that regulate the relations of individuals with the state, and thus are actual practices of formal or informal public responsibility (al-lilla, 2016, p. 1066).

**Agriculture policies:** The state instrument in the agricultural sector is an integrated system of procedures and legislation enacted by the state in order to achieve specific goals” (Ayoub & Malal, 2016, pp. 42-43). The researcher defines it as: a set of rules, methods and procedures in which the implementation of specific goals is achieved that lead to qualitative changes in the structure of the agricultural sector through changes that deal with crop composition, cultivated tenure structure, productive art and the structure of agricultural exports.

**Effectiveness:** Maximizing the rate of return on investment in all legitimate ways and it is considered as an indicator of the ability to survive and continue to control the environment” (Abu Qahran, 2001, p. 222), as well as the ability of the organization to achieve its goals and the criteria used to measure them depend on the model used in the study of organizations (Al-Mahdi, 2017, p. 10), and finally The researcher defines it as: the degree of conformity between the outputs to be obtained and the outputs obtained.

**Sufficiency:** The final product, whether quantitative or qualitative, that an individual achieves from the process of formation according to predefined criteria” (Balkadium, 2015, p.17), defined as reaching the degree of the desired whether the desired is physical or moral (Basandi, 2008, p. 37), and defined by Saad (2010, p. 1) as an evolutionary concept that builds gradually through The researcher defines it as: an expression of fulfilling tasks satisfactorily.

**Challenges:** A set of crises that occur in all fields at the global, regional, and local level and must be planned to confront them” (Suleiman, 2014, p. 3), namely that the presence or absence of which represents a threat, weakening, or distorting completely, partially or temporarily the existence of another situation intended for stability, strength and continuity (Khasawneh & Ashour, 2014, p. 304).

1.8 Previous Studies

To enrich the subject the researcher presents several related studies as follows:

Zayed study (2011): "The impact of the national plan 2008-2010 on the development of the agricultural sector in the provision of supporting services", the study revealed that the agricultural sector did not receive more than 0.8% of the development plan 2008-2010, and through the response of Palestinian experts to the approval of the plan with the strategic objective of steadfastness and study results lost, recommended To provide financial support to agro-industrial projects and coordinate with relevant local institutions, increase the efficiency of the use of land resources through land reclamation, rehabilitation of agricultural roads, and development of Water Resources.

Jarada Study (2016) highlighted the situation of agricultural land and the rights of farmers in the Gaza Strip. The study reached several recommendations, the most important of which are: the need to pay attention to agricultural scientific and research institutions, increase spending on aspects related to the development of current technology, encourage scientific research through the modernization of curricula and in line with scientific development, increase attention to agricultural infrastructure facilities, work to provide electricity and water resources to farmers at affordable prices without hindrance or delay.

Furthermore, Saleh (2012) studied the link between agriculture development and free well; the study stressed that the Palestinian Authority has not given the agricultural sector the attention it deserves, but its marginalization in its fiscal budgets and has not made attention to land and farms a priority issue in its programs. The Palestinian farmer has become suffering from systematic Israeli targeting, high production costs and the absence of support and protection. Building a sustainable Palestinian agricultural development strategy is vital to strengthening Palestinian resilience. This strategy is being built through a series of measures. The researcher concluded the need to rearrange national priorities so that agricultural work has a central role, allocating adequate budgets to revitalize the agricultural sector, setting food self-sufficiency as one of the basic priorities of the Palestinian people, and the Palestinian Authority and its various ministries play a vital and central role in planning, extension and agricultural rehabilitation.

Abu Haloob (2016) studies the limitation of the development in the agriculture sector in Palestine from
1995-2014. The study showed that the Palestinian agricultural sector suffers from many obstacles, such as obstacles, which can be traced back to Israeli policies such as the lack of Natural Resources, the weakness of the human population and the decline in the role of agricultural committees. The Palestinian economy still needs to adopt agricultural policies aimed at strengthening the position of agriculture as one of the most important sources of growth in the Palestinian economy. The researcher also recommended that the Palestinian Authority and successive governments should review their economic policies in the agricultural sector, especially with regard to providing financing and supporting farmers, and that farmers and agricultural workers should be qualified technically and socially, develop their knowledge capacities, support scientific research and increase spending on it, as well as the need for special training and awareness of farmers.

2. Methodology and Material

Study design: The study adopted the quantitative and qualitative approaches as they fist the objectives of this study.

Study sample & Population: The population consists of all institutions and entities that care about agriculture, farmers and agricultural policies, in addition to all farmers. Due to the large size of the study community and the difficulty of conducting a survey of all Palestinian farmers, it was relied on the facilitated and intentional sample to select agricultural institutions. The facilitated sample Method was used to select a group of agricultural institutions, represented by the following institutions: Ministry of agriculture, agricultural relief, hydrology Foundation, Union of Agricultural Work Committees, and Union of Palestinian farmers associations. The sample was used to conduct interviews with experts in the agricultural field, as well as the random sample was used to distribute the questionnaires to farmers, where (150) questionnaires were distributed.

Study questionnaire: The researcher using (interview, resolution) as tools to study, where they prepared the corresponding uses of through the use of literature and previous studies in the field of research, to determine any appropriate questions. Interviews (semi structured): these are Interview Questions, which contain the opinions of the researchers, on the impact of agricultural policies in enhancing the resilience of Palestinian farmers.

Questionnaire: The purpose of the questionnaire is to explore farmers’ satisfaction with agricultural policies, and their knowledge of the effectiveness and adequacy of agricultural policies. The first section includes personal data (gender, age, scientific qualification, number of years of experience, job title), and the second section includes the main axis of the form, which is the adequacy and effectiveness of agricultural policies (where these two axes are divided into several questions to determine the extent of farmers’ knowledge of these aspects of agricultural policies, and satisfaction).

3. Analysis and Findings

This section contains the results of the questionnaire which was administrated on 150 individuals in order to explore the adequacy level and efficacy of agriculture policy and their effect on farmers' satisfaction

Description of Study data:
Table 1 shows that 71% of the sample was females while males were only 29%.

Table 1. Sample distribution according to gender

|       | Frequency | %  |
|-------|-----------|----|
| Male  | 44        | 29 |
| Female| 106       | 71 |
| total | 250       | 100|

With regard to age, it was shown that 68% of them are less than 29 years old and 19% are between 30-39 years old. Further, 13% of them are older than 39 years old.

Table 2. Sample distribution according to age

|       | Frequency | %  |
|-------|-----------|----|
| Less than 30 | 102      | 68 |
| 30-39      | 28       | 19 |
| 40-49      | 14       | 9  |
| 50+        | 6        | 4  |
| Total      | 150      | 100|
With regard to the educational level, it was shown that 75% of the sample are with Bs degree and 3% of them own higher studies degrees (higher diploma and above).

Table 3. Sample distribution according to the educational level

| Frequency | %  |
|-----------|----|
| Less than secondary diploma | 0  | 0  |
| Bs | 112 | 75 |
| Higher Diploma | 2 | 1 |
| Master | 2 | 1 |
| PhD | 2 | 1 |
| No answer | 9 | 6 |
| Total | 150 | 100 |

According to experience, Table 4 indicates that 57% of the sample has an experience less than 5 years, 31% of them are with 5-9 years and 12% of them are with more than 9 years of experience.

Table 4. Sample distribution according to experience

| Frequency | %  |
|-----------|----|
| Less than 5 years | 85 | 57 |
| 5-9 years | 47 | 31 |
| 10-14 years | 12 | 8 |
| More than 15 | 6 | 4 |
| Total | 150 | 100 |

With regard to the post level it was shown that 63% of them are farmers, while 37% are in different levels (employees, managers and department heads).

Table 5. Sample distribution according to post

| Frequency | %  |
|-----------|----|
| Employee | 47 | 31 |
| Head Department | 3 | 2 |
| Manager | 5 | 3 |
| Farmer | 95 | 63 |
| Total | 150 | 100 |

3.1 Adequacy of Agriculture Policy

To test reliability of the study tool in measuring the adequacy of agriculture policies, which means; the ability of the questionnaire to give close results in each time, the giving correct answers. Cronbach’s Alpha was used for the items, as the tool is reliable if the coefficient is more than 0.70 for this tool it totaled (0.91) showing high reliability.

Figure 1 shows that there were no big differences between the views of farmers and administrators in the adequacy of agriculture policies, as the evaluations were low (2.7 for farmers and 2.8 for administrators). This indicates that there is a need to further upgrade agricultural environments. In terms of items of the focus on the adequacy of agricultural policies, it is clear from the figure that there is a clear weakness and imbalance in sufficient support for small farmers, gaining at least on average by both farmers and administrators. In addition, there is a clear weakness in the adequate attribution of farmers affected by the wall. On the other hand, farmers point to a weak and dysfunctional increase in animal production, while administrators consider that the average
increase in production is 3.2.

Statistically, One way ANOVA showed that there are no significant statistical differences between the adequacy of agriculture policies according to post, as we accept the null hypotheses for the test on (5%) level. It provided that there is no relationship between both variables as the probability value is 5% as shown in Table 6.

Table 6. One way ANOVA between agriculture policies adequacy and post

|                  | Sq    | df | Means | F     | sig  |
|------------------|-------|----|-------|-------|------|
| Between groups   | 2.885 | 3  | .962  | .849  | .469 |
| In groups        | 165.450 | 146 | 1.133 |       |      |
| Total            | 168.335 | 149 |       |       |      |

Table 7 showed that the means of the individuals for the adequacy of agriculture adequacy according to the post as there are no differences between the posts indicating insignificant differences according to One way ANOVA; as the means of farmers is 2.7 and 2.8 for employees and 2.1 for departments heads and 3.2 for managers.

Table 7. Means of the individuals for the adequacy of agriculture adequacy according to the post

|                  | Freq | M       | SD       |
|------------------|------|---------|----------|
| Employee         | 47   | 2.8298  | .54689   |
| D. head          | 3    | 2.0667  | .75719   |
| Manager          | 5    | 3.2000  | .76158   |
| Farmer           | 95   | 2.7074  | 1.25573  |
| Total            | 150  | 2.7493  | 1.06290  |

With regard to gender, independent sample test showed that there is no significant statistical relationship between agriculture policies variable according to gender, as we accept the null hypothesis at the level of (5%) providing that: there is no significant statistical relationship between the two variables as the probability is more than (5%) as seen in Table 8.

Table 8. Independent sample test of agriculture policies adequacys variable according to gender

|                  | df    | sig  | .fiff | Trust 95%          |
|------------------|-------|------|-------|--------------------|
|                  |       |      |       | Less               | Higher            |
|                  | T      | df   | sig   | .28208             | .65724             |
|                  | -1.486 | 148  | .139  | .09309             |

Table 9 shows the means of the individuals responses for the adequacy of the agriculture polices according to gender as there are no differences between males and females it is insignificant according to the previous test as males mean was 2.5 and females mean was 2.8.

Table 9. Means of the adequacy of the agriculture polices according to gender

|                  | Freq | M       | SD       |
|------------------|------|---------|----------|
| Males            | 44   | 2.5500  | 1.25392  |
| Females          | 106  | 2.8321  | .96733   |
| Total            | 150  | 2.7493  | 1.06290  |

With regard to age, independent sample test showed that there is no significant statistical relationship between
agriculture policies variable according to age, as we reject the null hypothesis at the level of (10%) providing that: there is no significant statistical relationship between the two variables as the probability is more than (10%) as seen in Table 10.

Table 10. One Way ANOVA between agriculture policies and age

|        | Sq  | df | M   | F   | sig |
|--------|-----|----|-----|-----|-----|
| Between groups | 8.610 | 3  | 2.870 | 2.623 | .053 |
| In groups     | 159.725 | 146 | 1.094 |       |     |
| Total         | 168.335 | 149 |       |       |     |

Table 11 shows that mean of individuals 'view of the adequacy of agricultural policies according to the age group; it shows differences for the age group between 30 to 39 years compared to the rest of the groups. As the mean for the age group of less than 30 years were about 2.9, for the group between 40 and 49 years it was about 2.8, and for the group between 50 years and over about 2.9.

Table 11. Means of agriculture polices adequacy according to age

|                | Frq | M      | SD    |
|----------------|-----|--------|-------|
| Less than 30y  | 102 | 2.8667 | 1.02420 |
| 30-39y         | 28  | 2.2500 | 1.10705 |
| 40-49y         | 14  | 2.8286 | 1.21493 |
| More than 50   | 6   | 2.9000 | .54772 |
| Total          | 150 | 2.7493 | 1.06290 |

According to educational level One way ANOVA showed that there is no significant statistical relationship between agriculture policies variable according to educational level, as we reject the null hypothesis at the level of (5%) providing that: there is no significant statistical relationship between the two variables as the probability is more than (5%) as seen in Table 12.

Table 12. One way ANOVA test between agriculture policies variable according to educational level

|        | Sq  | df | M   | F   | sig |
|--------|-----|----|-----|-----|-----|
| Between groups | 3.365 | 4  | .841 | .843 | .500 |
| In groups     | 135.670 | 136 | .998 |       |     |
| Total         | 139.035 | 140 |       |       |     |

Table 12 shows that the means of the individuals' views according to educational level that there is no difference between the educational levels, as the Bs degree holders totaled 2.8, Diploma 3.1, High Diploma 3.1, Master holders 2.9, it is non-significant statistical differences since the number of Master degree holders is only two, It was 3.3 for PhD holders.

Table 13. Means of Agriculture policies adequacy according to educational level

| SD         | M      | Frq |                |
|------------|--------|-----|----------------|
| 1.06314    | 3.0870 | 23  | Diploma        |
| .99061     | 2.8179 | 112 | Bs             |
| .42426     | 3.1000 | 2   | Higher Diploma |
| .28284     | 2.0000 | 2   | Master         |
| 1.27279    | 3.3000 | 2   | PhD            |
| **1.06290**| **2.7493** | **150** | **Total**      |

According to years of experience One way ANOVA showed that there is significant statistical relationship
between agriculture policies variable according to years of experience, as we reject the null hypothesis at the level of (10%) providing that: there is no significant statistical relationship between the two variables as the probability is more than (10%) as seen in Table 14.

Table 14. One way ANOVA between agriculture policy adequacy and years of experience

|                  | Sq      | df | M    | F  | sig  |
|------------------|---------|----|------|----|------|
| Between groups   | 7.476   | 3  | 2.492| 2.262 | .084 |
| In groups        | 160.859 | 146| 1.102|      |      |
| Total            | 168.335 | 149|      |      |      |

Table 14 shows that mean of individuals on the adequacy of agricultural policies according to years of experience, which shows differences for those with 5 to 9 years of experience compared to the rest of the groups, where the average adequacy of agricultural policies among, according to the viewpoint of this group, is about 2.4, which is clearly lower than the rest of the groups. The average for those with less than 5 years of experience is about 2.9, for those with 10 to 14 years of experience about 3.0, and for those with 15 years or more experience about 3.0.

Table 15. Means of agriculture policies adequacy according to experience

|                | freq | M     | SD   |
|----------------|------|-------|------|
| Less than 5y   | 85   | 2.8847| .90889 |
| 5-9 y          | 47   | 2.4213| 1.24986 |
| 10-14y         | 12   | 2.9500| 1.23620 |
| More than 15y  | 6    | 3.0000| .74833 |
| Total          | 150  | 2.7493| 1.06290 |

Table 16. Agriculture policies adequacy as Perceived by experts (interviews)

| Item                                                        | M  | SD  |
|------------------------------------------------------------|----|-----|
| Agricultural (livestock) production is being sufficiently increased | 1.6 | 0.548 |
| The occupation is being pursued to obtain adequate compensation for farmers | 2.2 | 0.837 |
| The agricultural production inputs are provided to the farmers sufficiently | 2.4 | 1.140 |
| Affected farmers are being supported by the wall sufficiently | 2.4 | 1.140 |
| Small farmers are being adequately supported                 | 2.6 | 1.140 |
| The presence of the local product is sufficiently enhanced   | 2.6 | 1.140 |
| Agricultural (vegetable) production is being sufficiently increased | 2.8 | 1.304 |
| Agricultural lands destroyed by the Israeli occupation are being sufficiently rehabilitated | 2.8 | 1.304 |

Table 16 shows through interviews which were conducted by five experts in the agriculture field: the executive manager of the framers associations union, general manager of planning and polices of the ministry of agriculture, coordinator of the initiative of farmers relief, the head of recruiting money for farmers committee and Executive Director of the Palestinian Hydrology Group; that the adequacy of agriculture polices supports the relicense of the Palestinian farmer in a low degree, as the mean totaled (4.43), item (7) provided that (Agricultural lands destroyed by the Israeli occupation are being sufficiently rehabilitated) came with the highest mean of (2.8). While, item 1 (Agricultural (livestock) production is being sufficiently increased) came with the lowest mean of (1.6), the sample agreed that the reason for Paragraph (1) obtained the lowest degree and the consensus of all managers that raising animals (cows, sheep, sheep) is very expensive for farmers in addition to that the production conditions are difficult, especially in Palestine because the price of feed is very expensive and needs prevention, while the agricultural production of plants was unanimous by the directors (Union of farmers associations, Palestinian hydrologists group, and the Ministry of Agriculture). Further, Paragraph (8): "What was destroyed by the Israeli occupation in agricultural lands is sufficiently rehabilitated" received the highest average
score (2.8). Hassan al-Ashqar (Ministry of Agriculture) refrained from answering paragraph (3): (agricultural production inputs are provided to farmers sufficiently) Rada that agriculture is a trade (i.e. profit and loss) they do not need support because their livelihood exists, while affected and marginalized farmers are provided production inputs but not enough, and stressed that production inputs are sufficiently available (seeds, ashtal, water, land, plastic, medicines) . It is true that their prices are high but the equation is high production input and high production output and the difference between them profit and farms profit. He also refrained from responding to paragraph (6): (the presence of the local producer is sufficiently enhanced) in response to that there are goods easy conditions of production and easy resources, but wheat is impossible either in the present or in the future, if billions were put what we estimate to be sufficient in its production due to the small area of Palestine. In addition, the conditions of the country do not allow the cultivation of certain crops, and then they must be imported from abroad. It is also clear that paragraph (4): (farmers affected by the wall are adequately accounted for), received an average of (2.4), and all the managers interviewed agreed that the risk prevention fund compensates those affected by natural disasters (earthquakes, storms, etc.). Instead, the EU has set up a compensation mechanism for farmers affected by the occupation, through the fund following up on the file and looking at the damage and assessing it any (technical issue) and then the compensation is taken from the EU.

3.2 The Effectiveness of Agriculture Polices

To test the reliability of the tool for measuring the effectiveness agriculture policy, in presenting close results every time while applying it. Cronbach Alpha was used as the tool is valid if the value is higher than (0.7), the value of this domain is (0.911) showing a valid tool.

Figure 2 shows that both farmers and administrators view the level of effectiveness of agricultural policies as rather low (2.6 for farmers and 2.7 for administrators). From the point of view of both administrators and farmers in providing support to farmers adjacent to settlements, rehabilitating agricultural infrastructure destroyed by Israeli occupation, supporting farmers in marginalized areas, and supporting farmers of export crops. On the other hand, farmers indicate weakness and imbalance in the training of agricultural workers, while administrators consider the level of training to be average (3.1).

Statistically, one way ANOVA showed that there is no significant statistical relationship between the effectiveness of agriculture polices according to the post, as we accept the null hypothesis at (5%) providing that there is no relationship between both variables id the value is more than (5%) as shown in Table 17.

Table 17. One way ANOVA showed that there is no significant statistical relationship between the effectiveness of agriculture polices according to the post

|                | Sq   | df | M    | F    | sig |
|----------------|------|----|------|------|-----|
| Between groups | 4.199| 3  | 1.400| 1.258| .291|
| In groups      | 162.437| 146| 1.113|      |     |
| Total          | 166.636| 149|      |      |     |

It is shown in Table 18 that the means of the individuals views for the effectiveness of agriculture polices according to the post as there are no differences between posts, as the means of farmers is (2.6), employees (2.7), department heads (2.0) and managers (3.4).

Table 18. That the means of the individuals views for the effectiveness of agriculture polices according to the post

|            | Frq | M       | SD    |
|------------|-----|---------|-------|
| Employee   | 47  | 2.6936  | .70999|
| D. head    | 3   | 2.0000  | .72111|
| Manager    | 5   | 3.4000  | .91652|
| Farmer     | 95  | 2.6274  | 1.19773|
| Total      | 150 | 2.6613  | 1.05753|

With regard to gender independent samples test showed that there is no significant statistical relationship between the variable of agriculture polices according to gender, as we accept the null hypothesis at (5%)
providing that there is no relationship between both variables if the value is more than 5%, as shown in Table 19.

### Table 19. Independent samples between the variable of agriculture polices and gender

| T     | df  | sig   | M       | Trust value |
|-------|-----|-------|---------|-------------|
| -.728 | 148 | .468  | -.13825 | Least       |
|       |     |       |         | Higher      |
|       | -.51362 | .23712 |         |             |

It is shown in Table 20 that the respondents views of the agriculture polices effectiveness according to gender; that there are no big differences between males and females, these differences are insignificant according to Independent Samples Test, since the mean of males is 2.6 and for females 2.7.

### Table 20. Means of the agriculture policy effectiveness according to gender

| freq | M  | SD  |
|------|----|-----|
| Male | 44 | 2.5636 | 1.17515 |
| Female | 106 | 2.7019 | 1.00787 |
| Total | 150 | 2.6613 | 1.05753 |

With regard to age category One way ANOVA test showed that there is significant statistical relationship between agriculture polices effectiveness according to age, as we reject the null hypothesis at the level of (10%) providing that there is no relationship between the variables if the value is less than 10%. Table 21 shows the values.

### Table 21. One way ANOVA test s between agriculture polices effectiveness according and age

| Sq   | df  | M  | F  | sig |
|------|-----|----|----|-----|
| Between groups | 7.243 | 3 | 2.414 | 2.211 | .089 |
| In groups | 159.393 | 146 | 1.092 |     |     |
| Total | 168.335 | 149 |     |     |     |

It is shown in the table that there are differences for the age group between 30 to 39 years compared to the rest of the groups, where the average effectiveness of agricultural policies between according to the viewpoint of the members of this group was about 2.2, which is clearly lower than the rest of the groups. As the average for the age group of less than 30 years was about 2.8, for the group between 40 to 49 years old it was about 2.8, and for the group between 50 years and over about 2.9.

### Table 22. Means of the effectiveness of agriculture polices according to age

| freq | M  | SD  |
|------|----|-----|
| Less than 5y | 102 | 2.7529 | 1.01325 |
| 5-9 y   | 28 | 2.2071 | 1.14889 |
| 10-14y  | 14 | 2.8000 | 1.18452 |
| More than 15y | 6 | 2.9000 | .60332 |
| Total | 150 | 2.6613 | 1.05753 |

With regard to the educational level One way ANOVA test showed that there is no significant statistical relationship between agriculture polices effectiveness according to educational level, as we accept the null hypothesis at the level of (5%) providing that there is no relationship between the variables if the value exceeds 5%, Table 23 shows the values.

### Table 23. One way ANOVA test s between agriculture polices effectiveness according and education
It is clear that there are no significant differences between educational levels, which were considered non-statistically significant according to the One way ANOVA test, where the average for holders of a bachelor’s degree was about 2.7, for those with a diploma about 3.0, and for those with a higher diploma. About 2.7, and for masters’ holders about 1.9 (the existence of a statistically significant difference cannot be considered because the number of master’s holders within the study sample is only two), and for PhD holders 3.9.

Table 24. Means of agriculture polices effectiveness according to educational level

| Education Level | Frequency | M       | SD     |
|-----------------|-----------|---------|--------|
| diploma         | 23        | 2.9826  | .90637 |
| Bs              | 112       | 2.7196  | 1.01465|
| Higher Diploma  | 2         | 2.7000  | .14142 |
| Master          | 2         | 1.9000  | .14142 |
| PhD             | 2         | 3.9000  | 1.55563|
| Total           | 150       | 2.6613  | 1.05753|

With regard to years of experience One way ANOVA test showed that there is no significant statistical relationship between agriculture polices effectiveness according to educational level, as we accept the null hypothesis at the level of (5%) providing that there is no relationship between the variables if the value exceeds 5%, Table 25 shows the values.

Table 25. One way ANOVA test s between agriculture polices effectiveness according and years of experience

|          | Sq     | df | M     | F     | sig  |
|----------|--------|----|-------|-------|------|
| Between groups | 5.149  | 3  | 1.716 | 1.552 | .204 |
| In groups | 161.486| 146| 1.106 |       |      |
| Total    | 166.636| 149|       |       |      |

It is shown that there are no big differences between categories, as the mean of those with (5-9) years of experience is 2.4. Those with less than 5 years of experience is 2.8 and it is 2.4 for those with 10-14 years of experience and 2.9 with those with more than 15 years of experience

Table 26. Interview results for the effectiveness of agriculture polices as perceived by experts

| Item                                                                 | M    | SD  |
|---------------------------------------------------------------------|------|-----|
| The destroyed agricultural infrastructure was rehabilitated by the Israeli occupation. | 3.0  | 1.414 |
| Support was provided to farmers near the settlements                 | 3.6  | 1.140 |
| Export crop growers were supported                                   | 3.0  | 0.707 |
| Supporting farmers’ initiatives to invest their lands behind the wall| 3.2  | 1.483 |
| The movement of the Israeli product in the Palestinian market has been documented | 2.6  | 1.140 |
| Farmers were supported in marginalized areas                        | 3.6  | 1.517 |
| Agricultural workers have been trained to equip them with the skills needed in production | 3.6  | 1.517 |

Table 26 showed the results of the interviews conducted with five experts; those are: Executive Director of the
Union of Farmers Associations, Director General of Planning and Policies for the Ministry of Agriculture, Entrepreneurship Coordinator for Agricultural Relief, Responsible for the Fund Raising Unit for the Union of Agricultural Work Committees, and Executive Director of the Palestinian Hydrology Group. It is shown that the effectiveness of agriculture polices in promoting farmers relicense is in an average degree as the mean totaled (3.23).

Item (5) "The movement of the Israeli product in the Palestinian market has been documented" obtained the lowest mean of (2.6), which is a low average, and this is due to the opinion of the respondents because there is no control over the crossings and borders, which is mainly caused by the division of lands into an area (A, B, and C), which resulted in the Authority not controlling Area (C) and thus facilitated the entry of Israeli products to the Palestinian market (the Palestinian market is an open market). The Coordinator of Entrepreneurship (Ismail Subuh), Agricultural Relief, commented: that Israeli goods need a decision not to import them, so the policy maker is the one who makes the decision (Israeli goods have low prices and compete with local products). His answer was totally different from others answers in item (6) "Farmers were supported in marginalized areas"; as he said that farmer in the (Ghour) are breached since 1967, when there is talk about annexation of lands, we should not go to the work of festivals because the festivals are not supportive of the steadfastness of the farms, and also the demonstrations at the barriers do not lead to a satisfactory result, which is represented by the steadfastness of the farms, because if the farmer does not directly support and is installed on the ground, whether he is a vegetable farmer or My animals, so you can be sure that the land is lost, for the festivals and demonstrations only aim to bring the lights and the evidence is clear with our own eyes that settlement continues and the number of people residing in the valley is decreasing due to migration and the land is shrinking.

Meanwhile, item (7) "Agricultural workers have been trained to equip them with the skills needed in production" has the highest mean of (3.6) in a high evaluation, this may be due to that farming is a good profession and always there is a lot of training. It is also evident that item (3): (Export crops farmers were supported) achieved an average of (3). The Director General of Planning and Policies (Hassan Al-Ashqar) from the Ministry of Agriculture differed from the rest of the managers by saying that export crops are not a priority in light of The resources are limited, and he stressed that the owners of export crops are closer to trade and the national economy and have immunity, as for small farmers, who account for 85%, have no immunity, as small farmers are helped indirectly through the opening of marketing channels, and this paragraph was considered differently by Ismail Subuh. (Agricultural Relief) by saying that; we must achieve self-sufficiency in the market and then go to export crops.

### 3.3 Challenges Facing Palestinian Farmers

Table 27. challenges facing Palestinian farmers (interview results)

| Items                                                                 | M    | SD   |
|----------------------------------------------------------------------|------|------|
| Continuous steal of Palestinian water is a challenge in front of carrying out agriculture polices | 4.8  | 0.447|
| Limited agricultural land poses a challenge to implementing agricultural policies | 4.4  | 0.548|
| The weak government budget allocated to the agricultural sector constitutes an obstacle to the implementation of agricultural policies | 4.6  | 0.894|
| The direct submission of the border crossings in the West Bank to the Israeli occupation posed a challenge to the implementation of agricultural policies | 5.0  | 0.000|
| Confiscating agricultural lands and turning them into military zones is a challenge to implementing agricultural policies | 5.0  | 0.000|
| The lack of Palestinian control over agricultural production inputs poses a challenge to the implementation of agricultural policies | 4.2  | 1.304|
| The weak infrastructure for agricultural research is a challenge to implementing agricultural policies | 3.8  | 1.304|

Through the interviews with the experts it was found that the challenges facing Palestinian farmers are high with a mean of (4.54). The most important challenges are; the direct submission of the border crossings in the West Bank to the Israeli occupation posed a challenge to the implementation of agricultural policies, continuous steal of Palestinian water is a challenge in front of carrying out agriculture polices, the weak government budget allocated to the agricultural sector constitutes an obstacle to the implementation of agricultural policies and the
lack of Palestinian control over agricultural production inputs poses a challenge to the implementation of agricultural policies. All experts agreed that those challenges need to be addressed and solved to improve the Palestinian agriculture sector.

4. Summary of Results

The findings of the study showed that the effect of agriculture polices contributes in enhancing Palestinian farmers relicense with a mean of (3.4) in an average degree according to the interview sample. Moreover, item which provided that ((Border crossings in the West Bank are directly subject to the Israeli occupation, which poses a challenge to the implementation of agricultural policies) significantly, as it got the highest average compared to all the corresponding items with a score of (5), and also the next item (The confiscation of agricultural lands and making them military zones is a challenge to the implementation of the policies. Agriculture) obtained the highest average compared to all the corresponding items, with a score of (5).

5. Recommendations

- The Palestinian national authority must reconsider its policy in the agriculture sector.
- The Palestinian government must increase the share of agriculture in the public budget as this sector needs more attention.
- The need to take care of agricultural animal production by reducing the price of feed and providing the necessary prevention to reduce animal mortality, which causes loss to farmers, which in turn leads to the reluctance of farmers to this activity.
- Need to stop the import of plant and animal products from the Israeli side through the adoption of policies blocker and harsh penalties to those who violate it.
- The need to develop an agricultural map to improve the agricultural sector, by clarifying the agricultural seasons and when each type of plant is grown, and preparing the market to receive only local products.
- The need to activate the risk prevention fund to compensate affected farmers, by starting to compensate farmers because the fund has not compensated any farmers since it was established.
- The need to activate the Palestinian agricultural lending fund, by giving small farmers an agricultural loan to carry out agricultural activity, and encouraging them to the profession of Agriculture, which improves the local agricultural activity.
- The need to provide direct support to the farmers by protecting them from Israeli attacks, giving them material support before moral support, due to the conditions in which the Palestinian farmer experiences daily violations, excluding them from paying taxes, and not holding demonstrations and festivals because they do not benefit.
- Encouraging farmers and provide them with security through protecting the market and protecting their products in front of other products.

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