Study

Challenges Facing Vegetable Farmers in the West Bank Following the Aggression on the Gaza Strip

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Abstract

This study investigates the ramifications of the Israeli aggression on the Gaza Strip, delineating a climate of instability and uncertainty within the West Bank. Heightened Israeli security measures, punitive actions, and an upsurge in settler violence against Palestinian citizens have manifested through the implementation of checkpoints, road closures, and daily military operations across all West Bank governorates. The conflict has resulted in the closure of West Bank-Israel crossings, impeding Palestinian workers from their daily employment, consequently influencing the economic landscape and affecting the livelihoods of Palestinian families. Preliminary estimations from the Palestinian Central Bureau of Statistics project a 3% decline in the gross domestic product (GDP) for the current year due to the Israeli aggression on Gaza, alongside broader economic repercussions in the West Bank, reflecting a daily production loss of approximately $16 million.

This report aims to scrutinize the challenges confronting fresh vegetable farmers in the West Bank, particularly in the context of the Gaza Strip conflict. By formulating policy recommendations directed towards governmental bodies and agricultural organizations, the report aims to support and enable this category of farmers to continue their agricultural pursuits. Employing a mixed-methodology approach that integrates quantitative and qualitative methods, the research engaged in a telephone survey with 200 farmers across West Bank governorates. Furthermore, the study collected field reports from pertinent institutions such as the Palestinian Farmers Union, the Land Research Center, and Agricultural Relief, and conducted in-depth interviews to ascertain qualitative insights and institutional perspectives on the challenges faced by farmers.

The findings expose numerous challenges encountered by vegetable farmers in the West Bank since the commencement of the conflict, encompassing disruptions in marketing methodologies, hindered land access, and soaring production input costs. Additionally, there is an alarming escalation in physical attacks targeting farmers’ property, including irrigation systems, greenhouses, and agricultural ponds. Despite farmers in proximity to the wall and settlements facing heightened vulnerability, the majority have been subject to various challenges. Most notably, a substantial majority of farmers reported income decreases during the conflict period.

The survey results demonstrate that 50% of vegetable farmers grappled with difficulties accessing their lands, while the majority contended with inflated production input costs and transportation and marketing challenges, culminating in decreased production and income. Moreover, 16% of farmers experienced physical attacks and direct property assaults, intensifying feelings of exposure and personal insecurity.

It is crucial to note that this period coincided with the olive harvest season in Palestine, during which settler attacks in the West Bank and the aggression against Gaza led to a 25% loss in olive oil production, according to estimates from the Palestinian Ministry of Agriculture. Additionally, other sectors, including fruit tree cultivation and livestock, face heightened settler attacks and challenges attributed to closures. Survey results indicate that 46% of vegetable farmers own fruit trees, and 25% possess birds or livestock, underscoring the compounded impact on a substantial proportion of vegetable farmers engaged in diverse agricultural enterprises.
The report employs a descriptive and analytical approach to fulfill its objectives, conducting a comprehensive literature review to diagnose the reality and structure of the agricultural sector, specifically focusing on vegetable cultivation in Palestine. The primary aim is to identify and analyze the prominent challenges faced by this sector during the Gaza war. The methodology further involves collecting and analyzing data using appropriate statistical analysis tools to evaluate the actual impact of the pandemic on the agricultural sector along supply chains. This, in turn, informs the determination of response policies necessary to address current challenges.

The methodology consists of several key steps:

1. **Review of Literature:**
   - A comprehensive review of literature was conducted to diagnose the pre-war reality of the agricultural sector in Palestine, emphasizing vegetable cultivation. This involved identifying general challenges faced by the sector.
   - Subsequently, local and international reports related to the impact of the war on economic activity and, specifically, the agricultural sector were reviewed and analyzed.

2. **Literature Analysis:**
   - The literature analysis aided in identifying gaps in necessary data, comprehensively defining variables, and constructing and defining questionnaire elements essential for data collection.

3. **Questionnaire Design:**
   - After identifying study variables and measurement tools, the research team designed a questionnaire.
   - The questionnaire comprised three main sections:
     - The first section addressed geographical variables and cultivated varieties.
     - The second section focused on direct attacks on farmers and their property.
     - The final section delved into the challenges faced by farmers.

4. **Sampling and Distribution:**
   - Questionnaires were distributed to a random sample of 200 farmers, with a gender distribution mirroring the demographic makeup of agricultural holders in Palestine.
   - Of the respondents, 92% were male, and 8% were female, reflecting the gender distribution in the agricultural sector.
   - The sample distribution across governorates aligned with the proportional representation of land cultivated with vegetables in each region.
   - In-depth interviews were conducted with representatives of relevant authorities, as shown in the following table:

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Jericho and JV</th>
<th>Hebron</th>
<th>Jenin</th>
<th>Qalqilya</th>
<th>Tulkarem</th>
<th>Nablus</th>
<th>Bethlehem</th>
<th>Salfit</th>
<th>Ramallah</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated areas-vegetables</td>
<td>26,050</td>
<td>20,494</td>
<td>75,675</td>
<td>2,994</td>
<td>10,994</td>
<td>13,955</td>
<td>5,206</td>
<td>1,823</td>
<td>4,169</td>
<td>161,360</td>
</tr>
<tr>
<td>Number of Questionnaires</td>
<td>32</td>
<td>25</td>
<td>93</td>
<td>5</td>
<td>14</td>
<td>17</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>200</td>
</tr>
</tbody>
</table>
Table (2) List of Interviews

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Moayed Bisharat</td>
<td>Jericho and JV Coordinator, Union of Agricultural Work Committees</td>
<td>20/11/2023</td>
</tr>
<tr>
<td>2</td>
<td>Salah AlBaba</td>
<td>Director General-Ministry of Agriculture</td>
<td>27/11/2023</td>
</tr>
<tr>
<td>3</td>
<td>Abdul Qader Kharraz</td>
<td>Agricultural Directorate, Jenin</td>
<td>19/11/2023</td>
</tr>
<tr>
<td>4</td>
<td>Joudeh Iseaid</td>
<td>Chairman, Palestinian Farmers Unions</td>
<td>10/11/2023</td>
</tr>
<tr>
<td>5</td>
<td>Ahed Zanabeet</td>
<td>Palestinian Agricultural Relief, Tulkarem</td>
<td>28/11/2023</td>
</tr>
<tr>
<td>6</td>
<td>Anwar Fouqaha</td>
<td>Farmers Representative, Ein Albayda</td>
<td>22/11/2023</td>
</tr>
<tr>
<td>7</td>
<td>Ashraf Sawaltah</td>
<td>Farmers Representative, Bardalah</td>
<td>22/11/2023</td>
</tr>
<tr>
<td>8</td>
<td>Mohamad Ali Fouqaha</td>
<td>Farmers Representative, Kardala</td>
<td>22/11/2023</td>
</tr>
</tbody>
</table>
This section examines the multifaceted dynamics influencing the agricultural sector in Palestine, with particular attention to the ramifications of Israeli occupation. Despite its low contribution to the GDP (7.1%), the agricultural sector plays an essential role in the economic and social life of Palestinians. Because of its close connection to their cultural and political identity. The agricultural sector also contributes to achieving food security for citizens. For example, there is complete self-sufficiency in vegetables, eggs, and olive oil, while the self-sufficiency rate in many dairy products is about 87%. The added value of the agricultural and fishing sector in Palestine amounted to US$1,091.1 million at constant prices in 2018, an increase of 1.6% over the year 2017. The contribution of the agricultural sector to the gross domestic product decreased in the past two decades from 9.5% in 2000, to 7.1% in 2020. The number of workers in the agricultural sector also decreased from 78,000 in 2015 to 53,000 in 2019. This is a significant decline over a relatively short period (MAS Institute, 2021).

The Israeli occupation and its repressive and expansionist policies are considered the most prominent factor behind the continuing decline in the productivity of the agricultural sector and its ability to generate job opportunities. This is through its control over Area C, which represents about 61% of the area of the West Bank and 63% of the area of agricultural land in the West Bank (United Nations Conference on Trade and Development, 2015). Over the past decades, the Israeli occupation authorities have also confiscated agricultural land in the West Bank to build settlements and build settlement roads, in addition to confiscating tens of thousands of dunums of agricultural land in order to build the separation wall.

Prior to that, the occupation imposed its control over water sources in the West Bank and Gaza Strip, and stole about 85% of Palestinian groundwater to use it to provide drinking water to settlements and irrigate agricultural lands that were confiscated from the Palestinian population (Social and Economic Policies Observatory, 2019). It also imposes severe restrictions on groundwater extraction and the construction of water reservoirs to harvest rain. In addition to preventing the Palestinians from benefiting from their right to the waters of the Jordan River, which is the only permanent river available to them, especially in developing agriculture in the Jordan Valley region (Environmental Quality Authority, 2016), which limited the ability of the Palestinians to develop the agricultural sector and maximize its contribution to the gross domestic product. And it reduces and reduces the chances of achieving food security for Palestinian citizens.

The Israeli occupation's control over the crossings between the West Bank and the Gaza Strip, and between Palestine and the outside world, negatively affected the marketing of agricultural products locally and internationally, and hindered the import of production elements necessary for the agricultural sector, which raised the costs of production inputs and weakened the competitiveness of Palestinian agricultural products (The Economic and Social Policy Observatory, 2019).

The agriculture sector consists of the plant and animal production sectors. Vegetable production includes vegetables, fruits, and field crops/cereals. While livestock production includes ruminants, birds, bees, and fisheries. According to data from the Palestinian Ministry of Agriculture, the total cultivated area in Palestine in 2017 amounted to 1,418,239 dunums. While vegetables constituted only 13% of the total cultivated area, and field crops 21%; Trees occupied the largest proportion of the total area, at 67%, up from 62% in 2010. This is due to the significant expansion of areas planted with rain-fed olives. At the same time, the proportion of field crops decreased from 25% in 2010 to 21% in 2017, which is mainly due to the fragmentation of agricultural holdings and the decline in the feasibility of cultivation. There are 112 main agricultural types available in Palestine, including 39 types of fruit trees, 38 types of vegetables, and 35 types of field crops.
However, according to the agricultural census data issued by the Palestinian Central Bureau of Statistics, the total cultivated areas during the agricultural year 2020/2021 amounted to about 1,096.3 thousand dunums (of which 89.4% were in the West Bank, and 10.6% in the Gaza Strip), compared to 911.6 thousand dunums during the agricultural year 2009/2010, an increase of 184.7 thousand dunums. At the governorate level, the highest cultivated area was 281.2 thousand dunums, or 25.6%, in Jenin Governorate, out of the total cultivated area in Palestine, and the lowest percentage of cultivated area was 10.3 thousand dunums, or 0.9%, in Jerusalem Governorate, during the agricultural year 2020/2021.

During the same year, the area cultivated with trees amounted to about 676.8 thousand dunums (of which 94.7% were in the West Bank and 5.3% in the Gaza Strip), compared to about 542.4 thousand dunums during the agricultural year 2009/2010, an increase of 134.4 thousand dunums. It constituted 61.7% of the total area planted with crops. The area planted with olive trees constitutes the highest area planted with trees in Palestine out of the total cultivated area, with an area of 575.2 thousand dunums, or 85.0%, followed by the grape crop, with an area of 29.1 thousand dunums, or 4.3% (previous source).

Also, the area cultivated with vegetables amounted to about 202.3 thousand dunums (of which 69.6% were in the West Bank and 30.4% in the Gaza Strip), compared to about 127.3 thousand dunums during the agricultural year 2009/2010, an increase of 75 thousand dunums. It constituted 18.5% of the total area cultivated with agricultural crops. At the level of crop type, the area cultivated with potatoes was the highest in Palestine out of the total area of vegetables, reaching 23.5 thousand dunums, at a rate of 11.6%, followed by cucumber, at an area of 21.5 thousand dunums, at a rate of 10.6%. Jenin Governorate was distinguished by a cucumber crop with an area of 6,360 dunums, while Tubas and the Northern Jordan Valley was distinguished by a potato crop with an area of 7,625 dunums. The Gaza Strip was distinguished by its tomato crop, with an area of 6,997 dunums, and its strawberry crop, with an area of 4,301 dunums. Qalqilya and Al-Aghwar governorates are the center of irrigated agriculture. Livestock and rain-fed agriculture are concentrated in Hebron Governorate, while Jenin Governorate includes rain-fed and irrigated agriculture. The table below shows the areas cultivated with vegetables in each governorate until 2017.

Table (3): Areas of vegetable groups, fruit trees and field crops In the West Bank and Gaza Strip, 2010, 2017

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Year</th>
<th>Vegetables</th>
<th>Trees</th>
<th>Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenin</td>
<td>2010</td>
<td>19,181</td>
<td>97,326</td>
<td>54,263</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>43,634</td>
<td>166,510</td>
<td>85,715</td>
</tr>
<tr>
<td>Tulkarem</td>
<td>2010</td>
<td>8,469</td>
<td>58,624</td>
<td>3,548</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>10,994</td>
<td>93,086</td>
<td>3,159</td>
</tr>
<tr>
<td>Qalqilia</td>
<td>2010</td>
<td>2,945</td>
<td>34,320</td>
<td>7,111</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>2,994</td>
<td>60,733</td>
<td>3,188</td>
</tr>
<tr>
<td>Nablus</td>
<td>2010</td>
<td>11,353</td>
<td>77,535</td>
<td>27,274</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>13,955</td>
<td>145,806</td>
<td>26,524</td>
</tr>
<tr>
<td>Salfit</td>
<td>2010</td>
<td>367</td>
<td>37,438</td>
<td>631</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>1,823</td>
<td>62,593</td>
<td>2,322</td>
</tr>
<tr>
<td>Ramallah &amp;AlBirah</td>
<td>2010</td>
<td>1,924</td>
<td>55,271</td>
<td>6,619</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>4,169</td>
<td>126,105</td>
<td>17,206</td>
</tr>
<tr>
<td>Jerusalem</td>
<td>2010</td>
<td>757</td>
<td>7,356</td>
<td>1,713</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>1,029</td>
<td>23,634</td>
<td>5,163</td>
</tr>
<tr>
<td>Jericho</td>
<td>2010</td>
<td>25,947</td>
<td>5,225</td>
<td>2,409</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>26,050</td>
<td>23,978</td>
<td>2,194</td>
</tr>
<tr>
<td>Bethlehem</td>
<td>2010</td>
<td>1,573</td>
<td>23,250</td>
<td>4,676</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>5,206</td>
<td>51,147</td>
<td>5,600</td>
</tr>
</tbody>
</table>
Vegetables are considered one of the most important elements in the food basket of the Palestinian family, and their cultivation depends mainly on irrigation and agricultural techniques such as greenhouses, so they often achieve high production and good financial returns for the farmer (Applied Research Institute, 2015). The governorates of Jenin and Tubas are the Palestinian vegetable basket, as the percentage of area cultivated with vegetables there reached about 25% and 18%, respectively, of the total cultivated land. Table (3) shows a noticeable expansion between the years 2010 and 2017 in the cultivation of many summer crops in the Jenin and Hebron governorates, such as tomatoes and cucumbers, and some winter crops, such as cabbage and cauliflower. Tubas Governorate also witnessed a noticeable expansion in the cultivation of some types of vegetables, such as potatoes and zucchini. In Jericho and Al-Aghwar Governorate, tomato and eggplant crops occupied the largest proportion of the areas planted with vegetables, and there was also a noticeable increase in the cultivation of some vegetables, such as tomatoes, hot peppers, and zucchini, compared to a clear increase in the areas planted for some crops, such as watermelon, cantaloupe, and cucumbers.

In general, the number of agricultural holders reached 137,985 during the agricultural year 2020/2021 (of whom 82.4% were in the West Bank and 17.6% in the Gaza Strip), compared to about 110,104 holders during the agricultural year 2009/2010, an increase of 27,881 holders. The number of male holders reached 127,332, constituting 92.3% of the total number of agricultural holders in Palestine, and 10,653 female holders, representing 7.7%.
Data from the Palestinian Central Bureau of Statistics indicate that the losses of the agricultural sector in the Gaza Strip in light of the current war are estimated at approximately $2 million per day. The available data indicate a direct and comprehensive targeting of agricultural areas in the northern Gaza Strip, which constitute a third of the area cultivated with field crops, vegetables, and trees in the Gaza Strip (Palestinian Central Bureau of Statistics, 2023a). In addition to the massive destruction inflicted on agricultural facilities in the Gaza Strip, as well as everything else there, the West Bank has witnessed, since the outbreak of the war, an escalation of repressive occupation measures and an increase in settler violence, as we will explain in this report.

In addition, the cessation of Palestinian labor inside the occupied territories, the refusal of the Palestinian Authority to receive clearance funds, and the state of uncertainty and anticipation experienced by citizens have greatly affected the overall economic activity in the West Bank. The Ministry of National Economy’s weekly monitor showed an increasing deterioration of the problems and obstacles facing economic establishments, specifically focusing on the difficulty of transporting goods and the difficulty of movement between governorates as a result of the tightening Israeli occupation measures, representing 98.4% of establishments. In addition, 79.6% of the establishments indicated that settler attacks and the repeated incursions of the occupation authorities into areas of the West Bank constitute one of the main obstacles to their work, and 8.6% of them indicated that they were directly affected by the attacks of settlers and the occupation army, so that their economic losses were estimated at about 172 thousand shekels, including It concerns vehicles, 58 thousand shekels in buildings, and approximately 4 million shekels in goods and merchandise (Ministry of National Economy, 2023).

In addition to the above, 94.6% of establishments reported that strikes and closures had negatively affected their performance, while 94.4% of establishments indicated that the reason for the decline in their performance was due to the decline in purchasing activity by citizens. Also, 86.9% of establishments indicated that they suffer from the high cost of goods and commodities. In addition to the lack of sufficient goods or raw materials for 76.5% of establishments, which affected their normal work. The inability of internal Palestinians to reach the northern governorates represents one of the most prominent problems suffered by about 69.2% of establishments, especially commercial establishments, while 61.5% of establishments suffer from the inability of workers to reach workplaces, and 24.6% of them suffer from attacks. Settlers (Ministry of National Economy, 2023).

At the sectoral, the Ministry of National Economy’s weekly observatory indicated that the industrial sector (stone and marble sector, plastic industries, clothing, and others) is the most affected as a result of the occupation’s violations in the northern governorates in particular, where 69.6% of industrial establishments operate at less than their production capacity. The usual rate (more than 50% of its usual production capacity for 63% of factories, and a lesser rate for 37% of factories), compared to only 3.6% of factories that had increased their production capacity than before the war (Ministry of National Economy, 2023).

As for the agricultural sector, it has been significantly impacted since October 7th, specifically because the period coincided with the olive harvest season, so that olive production generates between 170-191 million dollars annually in Palestine, with approximately 80-100 thousand families receiving support. Olive production as a primary source of income. Since November 15, 2023, the Israeli Minister of Finance has called for the establishment of a buffer zone around settlements in areas of the West Bank, which has prevented farmers from accessing their agricultural lands near the separation wall or Israeli settlements. In addition to the limited ability to access agricultural land, the problem of not being able to sell agricultural products to Israeli areas in the occupied Palestinian interior emerged as was usual in the past. The increase in checkpoints and military barriers has increased the difficulties of movement and transporting agricultural products locally between different areas in the West Bank (Solutions, 2023).
In another context, the cost-of-living index witnessed a sharp increase during the month of October 2023, according to the Palestinian Central Bureau of Statistics, as the consumer price index in Palestine recorded a sharp increase of 2.57% as a result of the ongoing Israeli occupation aggression against the Gaza Strip since October 7, 2023. This resulted in an increase in the prices of dried vegetables by 25.48%, the prices of potatoes by 19.59%, the prices of fresh fruits by 9.97%, the prices of cereal flour by 9.36%, and the prices of eggs by 7.70%. The prices of fresh vegetables increased by 7.61%, the prices of vegetable oils by 3.15%, and the prices of rice by 2.27%. The rise in the prices of some basic commodities had the most important impact on the rise in the cost-of-living index, including fresh vegetables in particular (Palestinian Central Bureau of Statistics, 2023b).

Within the scope of the study that aims to shed light on the violations of the occupation army and settlers against Palestinian farmers in the West Bank since October 7, 2023, this chapter covers the violations observed by the relevant authorities against farmers. So, attacks by settlers and the Israeli occupation army are escalating throughout the West Bank, coinciding with the focus of media attention and attention towards the Strip, while the Israeli war on the Gaza Strip continues. The latest settlers’ campaign includes so-called «eco-terrorism», destroying Palestinian livelihoods by preventing Palestinian farmers from using their land, stealing land, crops, and livestock, and by intimidating and intimidating Palestinians from accessing their land.

According to the monthly report issued by the Palestinian Farmers' Union (for the months of October and November of 2023), Israeli settlers' attacks on Palestinians have increased in The West Bank increased fourfold compared to previous months (334 settler attacks in October alone). Much of Israeli settler attacks have focused on olive pickers, as well as herders and Bedouin communities, who have suffered for years from ongoing violations by settlers and have been denied access to the lands they depend on for survival. Settlers’ attacks varied between shooting live bullets, beating, uprooting and burning olive trees, stealing, destroying agricultural equipment, throwing stones at vehicles, blocking roads, and attacking homes, families, and farmers. In many villages and towns, settlers distributed leaflets on Palestinian farmers’ vehicles, including threats of death, displacement, and a repeat of the 1948 Nakba, and that they must leave their villages and towns to Jordan. This coincided with a recent ruling by an Israeli court regarding Area C being a closed military zone, which means that Palestinians are not allowed to enter their lands, which led to the displacement of dozens of Palestinian Bedouin communities, especially those that were surrounded by Israeli settlements and bypass roads, due to a constant threat. From settlers and the occupation army, the displacement policy was also accompanied by the destruction of Palestinian property, bypass roads, water wells, irrigation systems, and solar panels (Palestinian Farmers Union, 2023).

This was not limited to Area C only, it included residents of Area B as well, as Israeli settlers’ attacks varied between physical assault, establishing pastoral settlement outposts, destroying trees, stealing agricultural crops, and attacking farmers, specifically during the current olive harvest season. Other attacks also centered on preventing grazing in Bedouin communities, assaulting shepherds, throwing stones at passers-by and vehicles, blocking roads, writing racist slogans, attacking homes, destroying and burning property, and others (Palestinian Farmers Union, 2023).

In its previously mentioned report, the Union of Palestinian Farmers’ Associations monitored 367 attacks by Israeli settlers during the months of October and the second. Below we review the most prominent matters related to attacks directed at farmers (Palestinian Farmers Union, 2023):

- The expulsion of 250 Palestinians, residents of the village of Zanuta, south of Hebron, after repeatedly assaulting them by intimidating them, attacking their homes at night, vandalizing their property, and destroying water tanks, until they were forced to leave their homes. In a similar plan, attacks were intensified on the communities of Masafer Yatta, the village of Tuba, south of Hebron, and the village of Wadi Al-Siq, south of Bethlehem. With the aim of forcing them to leave as well.
• The displacement of dozens of Bedouin communities in Khirbet Samra and Makhul in the northern Jordan Valley by the Israeli occupation forces by threatening and attacking them. The attacks in these areas included settlers attacking residents’ homes and beating them in Khirbet Yarza and Khirbet Ibziq.

• 75 cases of attacks on agricultural lands, including burning, bulldozing, and plowing the lands with the aim of destroying and seizing them to declare them a closed military zone, and uprooting and cutting down olive trees in the villages of Ramallah, Nablus, Qalqilya, Salfit, and the Jordan Valley area (Haris, Salfit, and Deir Istiya).

• 10 cases of burning and/or theft of agricultural equipment that directly led to the obstruction of work during the olive harvest season for farmers in Nablus villages such as Deir Istiya, Qaryut, and Bethlehem.

• Burning two agricultural barracks in the villages surrounding the city of Nablus.

• 6 documented cases of attacks and vandalism on agricultural rooms in the villages of Nablus (such as Jalud and Qasra), east of Bethlehem, and the Jordan Valley. And 3 documented attacks on sheep herders in the Jordan Valley in the areas of Al-Hadidiya, Al-Farsiya, Nab’ Ghazal, and Khirbet Samra.

• Breaking and removing 18 gates, irrigation networks, and fences in Nablus (Jalud and Qasra), and the villages of Hebron Governorate, such as Masafer Yatta.

The Palestinian Agricultural Relief has also monitored several violations against Palestinian farmers since October 7. A report issued by the relief indicates that the Israeli occupation has tightened its grip on farmers in Tulkarm Governorate (behind and outside the annexation and expansion wall) since the beginning of the Israeli war on the Gaza Strip. The Israeli occupation denied farmers in Deir Al-Ghusoun, the town of Qaffin, and neighboring villages their right to access to their lands to harvest olives. The occupation also prevented farmers from the villages of Artah and Pharoan from approaching or entering lands planted with vegetable crops and olive trees.

Knowing that since the construction of the annexation and expansion wall, farmers of the towns and villages of Tulkarm Governorate have been prevented from entering their lands except through permits to enter through gates, but they are prevented from entering completely in most politically tense times, which reinforces the perpetuation of these attacks and violations. It is noteworthy that the Israeli occupation prevents farmers and workers in greenhouses, vegetable farms, etc., located behind the wall or near it, from accessing their lands.

In Qalqilya Governorate, the villages of Jin Safut, Hajjah, and Al-Azab Al-Gharbi are considered among the villages most threatened by the occupation army and its settlers. The Israeli occupation tightened its stranglehold on farmers in Qalqilya Governorate during the olive harvest season in a number of towns and villages in the governorate, as the occupation forces and settlers prevented farmers from reaching their lands, expelled them, beat them, and shot them to prevent them from reaching areas near bypass roads and settlements or threatened with confiscation. Inside and outside the annexation wall, as farmers were unable to reach these areas (the villages of Jayyus, Kafr Thulth, Al-Azab Al-Gharbi, Azzun, Asla, Joura Amra, Jin Safut, Jeet, Kafr Qaddum, Farata, Imatin, and Kafr Laqif).

Agricultural relief crews and volunteers in Salfit Governorate also monitored a series of repeated attacks carried out by occupation army soldiers and settlers on farmers during the olive harvest season, as farmers were subjected to the attacks in the villages of Yasuf, Sakaka, Kafr al-Dik, and Kifl Hars and Marada, in addition to the city of Salfit, which included beating and shooting at farmers, wounding a number of them, stealing the crop, and cutting down trees, with the aim of intimidating them, expelling them, and preventing them from practicing their work of picking olives under the protection of the occupation army. The occupation also deliberately released pigs into the area (Farkha-Salfit), which poses a major threat to agricultural lands and the lives of farmers in this village.

In Nablus Governorate, agricultural relief crews and volunteers monitored violations by the occupation and settlers against farmers working in picking olives in several villages and towns (Joreish, Qusra, Jalud, Qaryut, Douma, Beit Furik, Burin), which caused injuries to farmers and material losses that affected their property. Crops and equipment,
with the aim of intimidating them and preventing them from accessing their lands and agricultural fields in those villages and municipalities in the governorate's countryside. The Israeli occupation, accompanied by herds of settlers, also tightened the pressure on the people and residents of the village of Qaryut and Khirbet Sarra, located southeast of Nablus, as the Israeli occupation and groups of settlers prevented the residents of the village of Qaryut from reaching their lands and cultivated fields to harvest olive fruits, which deprived hundreds of families of benefiting from this season.

Agricultural relief crews, volunteers, and community protection committees also monitored the occupation’s practices against farmers and residents in the village of Burin in the Nablus governorate, where the occupation forces prevented farmers from reaching their lands to pick olives by shooting directly at them and closing agricultural roads near the “Yitzhar” settlement. The occupation forces occupied the streets adjacent to the residential areas in the village. These losses are estimated at about 50% of the total crop that farmers were unable to harvest or reach.

One of the most prominent attacks directed at farmers was the martyrdom of Bilal Saleh from Al-Sawiya on 10/28/2023 after a settler shot him while picking olives, along with other Palestinians, according to documentation by the Wall and Settlement Resistance Commission. Sarra and Beit Lid farmers also face difficulty accessing their land owned outside the town or near surrounding settlements. Although a schedule was issued by the association regarding the olive harvest dates for the current season for the villages of Aqraba, Yanun, Awarta, Deir Al-Hatab, Azmut, Al-Sawiya, Yatma, and Yasuf, it was later canceled due to the escalation of field conditions in the West Bank.

In addition to the above, information collected by the Israeli Violations Department team at the Land Research Center in October and November showed that most of the attacks focused on property, such as burning barracks or agricultural rooms, cutting the irrigation network, destroying agricultural roads, or violations of land. agricultural land, and the destruction of olive trees, in addition to confiscating sheep barracks, stealing cows, and constructing new colonial roads built on agricultural lands. This is followed by some families being forced to leave, specifically in the areas of South Hebron and the areas of Sinjil and Silwad in the Ramallah Governorate (Land Research Center, 2023a; Land Research Center, 2023b; Land Research Center, 2023c; Land Research Center, 2023d).
In this part of the study, we present a review and analysis of the results of a telephone survey that included two hundred vegetable farmers, distributed among ten governorates in the West Bank. This aims to document the attacks to which they may have been exposed, and to identify the most prominent challenges they have faced since the outbreak of the war in the Gaza Strip. The results were as follows:

1- Direct attacks
The results of the field survey indicate that 16% of farmers were subjected to physical assault during the war period, many of whom were assaulted more than three times, whether by the army or by settlers. In certain cases, these attacks caused farmers to be unable to work for the entire period. Which caused them to lose their income. Physical incidents were concentrated in the governorates of Jenin, Jericho, Al-Aghwar, and Tubas, where 21% of the farmers surveyed in Jenin and 15% in Jericho, Al-Aghwar, and Tubas reported that they had been subjected to direct physical assault. While the percentage reached 10% in Hebron, Tulkarm, and Bethlehem.

Also, 17% of the farmers surveyed reported that they had been subjected to attacks on their agricultural property, such as irrigation systems, power generators, greenhouses, and agricultural roads. These attacks were also concentrated in the city of Jenin, where they reached 26%, in Hebron Governorate, 17%, and 14% in Jericho and Al-Aghwar Governorate. The total direct losses resulting from the observed attacks are estimated at more than two and a half million shekels.

Also, 24%, or a quarter of the farmers surveyed, reported that they had been prevented from practicing their normal agricultural activities, such as irrigation, harvesting, and planting, at least once. In addition, a limited percentage of farmers, only about 4%, reported that their farms were directly destroyed during the war. The total losses recorded as a result amounted to 617,000 shekels.

These results are consistent with the quantitative data collected by the research team. Institutions working in the field of monitoring and documenting attacks by settlers and the occupation army observed an escalation in these attacks during the war period. These attacks directly affected the ability of farmers to carry out their agricultural work and generate income, but on a more important level, they left them with a feeling of insecurity and complete exposure to real risks to their lives.

2- Confiscation of lands
7% of the farmers surveyed reported that they were subjected to land confiscation during the war, with a total area of 130 dunums. The observed confiscations were distributed among Jenin Governorate by 55%, followed by Jericho and Al-Aghwar Governorate by 33%, and Hebron by 12%. Of course, this represents a continuation of Israel’s policy of expanding land confiscations and settlement expansion in recent years, as reports indicate that the occupation authorities have confiscated a total of:

3- Inability to reach land
The survey results indicate that in general, 50% of the farmers surveyed were unable to access their land at least once during the war period.
The results indicate that the inability to reach land is an almost daily occurrence. As 41% of those who reported that they cannot reach their land said that this happens on a daily basis, while 12% said that it happens usually, and 8% said that it happened more than 5 times. This is consistent with the field data previously presented, and consistent with the results of in-depth interviews, which clearly indicated that the occupation authorities greatly restricted the ability of farmers to access their lands, especially those close to the annexation and expansion wall and settlements. This is of course the most prominent challenge facing vegetable farmers. Their inability to access their lands, irrigate their crops, and carry out usual agricultural work led to the destruction of many of their crops. The observed losses as a result of preventing access to land amounted to approx.

There is a clear relationship between the inability to access land and exposure to loss of income, as 87% of those who could not access land experienced a decrease in income during the war period. While this percentage was 78% among those who were not subjected to access prevention. 47% of them reported that their loss was more than 50%, while this percentage was only 20% of those who were not subject to access denial.

As for geographical distribution, the results of the survey indicate that farmers in all regions suffered from an inability to access their lands, as the percentage in the governorates of Tulkarm, Jericho, and Al-Aghwar reached 69%, Hebron 68%, Jenin 42%, Tubas 37%, and Nablus 75%. %. However, it should be noted that the inability to access land depends greatly on the location of the agricultural land and where the farmer lives. Among those most affected during this period are the farmers who own agricultural lands behind the annexation and expansion wall. Before the war, they were able to access their lands through the gates, although this was limited to a certain period of time and conditional on obtaining permits. During the war, these farmers could no longer access their lands. In many cases, their transit permits were suspended. The same applies to farmers who own lands located in areas close, sometimes up to 200 or 400 meters, to the wall or settlements.

4- Labor Force
88% of the farmers surveyed reported that they did not suffer from a labor shortage during the war. Indeed, 3% of them reported that they had laid off a number of their employees. However, some farmers indicated that workers have become afraid to come to work due to the high risks and attacks from the army and settlers, especially in areas close to the wall and settlements. This phenomenon was concentrated in the Jordan Valley areas in the Jericho and Tubas governorates (66%), where large agricultural holdings are concentrated that require and employ a large number of workers. As for the rest, it was distributed between 20% in Hebron and 13% in Tulkarm. A number of the farmers surveyed reported that agricultural workers in their area were subjected to assault, whether by settlers or the occupation army.

5- Access to production inputs
Survey results indicate that 50% of the farmers surveyed faced difficulties or were unable to access production inputs, such as fertilizers, seeds or pesticides. This is either due to barriers, or due to its lack of availability in the markets, which depend on Israeli suppliers. It is noted that a relatively small percentage of farmers in Hebron (31%) and Nablus (23%) governorates suffered from this problem. Apparently, the fact that these two cities are the largest commercial centers in the West Bank has contributed to the greater availability of production inputs. As for the governorates of Jenin, Tulkarm, and Jericho, the percentage of those who reported that they were unable to access production inputs was 69%, 57%, and 57%, respectively. It should be noted here that some farmers responded that they did not attempt to
purchase production inputs during this period due to their inability to access their lands and practice their work. Also, it is noted that the organic farms and youth agricultural cooperatives that were interviewed indicated that they did not suffer from this problem during the war period, because they do not use chemical fertilizers and pesticides, and they also depend partly on seeds and seedlings produced by the farm.

Table (5): difficulties in accessing inputs

<table>
<thead>
<tr>
<th></th>
<th>Jenin</th>
<th>Tulkarem</th>
<th>Bethlehem</th>
<th>Jericho &amp; JV</th>
<th>Tubas</th>
<th>Hebron</th>
<th>Nablus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>69%</td>
<td>57%</td>
<td>72%</td>
<td>57%</td>
<td>33%</td>
<td>31%</td>
<td>23%</td>
<td>50%</td>
</tr>
<tr>
<td>No</td>
<td>31%</td>
<td>43%</td>
<td>28%</td>
<td>43%</td>
<td>66%</td>
<td>69%</td>
<td>77%</td>
<td>50%</td>
</tr>
</tbody>
</table>

As for the prices of production inputs, while the qualitative data collected during the interviews, whether from the Agricultural Extension Department or institutions working in the agricultural sector, indicate that the prices of fertilizers and pesticides did not witness a significant increase during the war period. 81% of the sample surveyed reported that they faced a rise in the prices of production inputs. This is the most common challenge presented by the vegetable farmers surveyed, but it is not the biggest or most influential challenge. While 45% of them reported that input prices rose between 1-25%, 42% reported that prices rose between 25-50%. While 12% responded that prices increased by more than 50%.

Table (6): Increase in prices of Inputs

<table>
<thead>
<tr>
<th></th>
<th>Jenin</th>
<th>Tulkarem</th>
<th>Bethlehem</th>
<th>Jericho &amp; JV</th>
<th>Tubas</th>
<th>Hebron</th>
<th>Nablus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>85%</td>
<td>63%</td>
<td>90%</td>
<td>88%</td>
<td>90%</td>
<td>73%</td>
<td>53%</td>
<td>81%</td>
</tr>
<tr>
<td>No</td>
<td>155</td>
<td>37%</td>
<td>10%</td>
<td>12%</td>
<td>10%</td>
<td>27%</td>
<td>47%</td>
<td>19%</td>
</tr>
</tbody>
</table>

6- Difficulties in marketing

All studies and reports related to the Palestinian agricultural sector agree that the issue of marketing and distribution is one of the most important of the many dilemmas that the Palestinian agricultural sector suffers from. Especially fresh vegetable growers. According to the results of a previous study by the MAS Institute, 79% of farmers suffer from the problem of marketing, and 58% suffer from high transport and communication costs, while 51% of the participants in this study pointed to the problem of competition with Israeli products, and 40% to the problem of multiple intermediaries.

During the war period, the cut off of marketing and communication between governorates, and the significant increase in the cost of transportation, were considered the biggest challenges faced by vegetable growers. About 75% of the farmers surveyed reported that they faced difficulties or were unable to market their crops during the war period. Either because of their inability to deliver the goods to merchants and sales centers, or because of the inability of the merchants themselves to reach the central vegetable market, due to the closure of roads and city entrances, and the invasions. For example, the farmers of Jericho and the Jordan Valley suffered from the inability to market their goods during the days when the occupation forces closed the city of Jericho. This is due to the inability of merchants, many of whom come from Jerusalem, to reach the central vegetable market in Jericho. One of the farmer respondents reported that he lost 6 tons of bananas due to spoilage before he was able to sell them.

As can be seen from Table No. (4) below, although farmers in the Jenin, Tulkarm, and Hebron governorates were greatly affected by marketing difficulties, 59%, 63%, and 68%, respectively. However, they are less affected than the governorates of Jericho, Al-Aghwar, Tubas, and Nablus, where the overwhelming majority of farmers reported that...
they faced difficulties and challenges in the issue of marketing during this period, 92%, 90%, and 84%, respectively.

Table (7): Marketing Difficulties by Region

<table>
<thead>
<tr>
<th></th>
<th>Jenin</th>
<th>Tulkarem</th>
<th>Bethlehem</th>
<th>Jericho &amp; JV</th>
<th>Tubas</th>
<th>Hebron</th>
<th>Nablus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>59%</td>
<td>63%</td>
<td>81%</td>
<td>92%</td>
<td>90%</td>
<td>68%</td>
<td>84%</td>
<td>75%</td>
</tr>
<tr>
<td>No</td>
<td>41%</td>
<td>37%</td>
<td>19%</td>
<td>8%</td>
<td>10%</td>
<td>22%</td>
<td>16%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Despite this, the quantitative data collected by the research team from more than one source indicates that farmers, in general, faced little problems in marketing their crops, especially due to the major blow to the agricultural sector in Israel, and thus the high demand for agricultural products. Palestinian. An agricultural worker - who preferred to remain anonymous - stated that about 80% of local production currently goes to Israel, whether through crossings or through smuggling. Another source proves this by saying that the stability of vegetable prices in the Palestinian market indicates that there are no problems with their availability.

However, data from the Palestinian Central Bureau of Statistics indicate an increase in the prices of fresh vegetables by 7.61%, the prices of dried vegetables by 25.48%, the prices of potatoes by 19.59%, the prices of fresh fruits by 9.97%, the prices of cereal flour by 9.36%, and the prices of eggs by 7.70%, vegetable oil prices by 3.15%, and rice prices by 2.27%. The consumer price index in Palestine recorded a sharp increase of 2.57% as a result of the ongoing Israeli occupation aggression against the Gaza Strip since October 7, 2023, compared to September 2023. The rise in the prices of some basic commodities had the most important impact on the rise in the price index. Living, including fresh vegetables specifically (Palestinian Central Bureau of Statistics, 2023).

In our opinion, the rise in prices of fresh vegetables is due to four reasons: the first is the decline in agricultural production in the West Bank, the second is the major blow to the agricultural sector in Israel and consequently the decline in agricultural imports from it, the third is the export of large quantities of Palestinian agricultural products to Israel, and the fourth is the rise in transport and communication costs. It is very unlikely that farmers have benefited in one way or another from the rise in prices. The rise in prices barely compensates for downtime, reduced productivity, and marketing difficulties.

7- Loss of Income
The attacks and challenges that farmers faced during the war had a negative impact on their ability to carry out their businesses, and thus on their income. 80% of respondents reported that they faced a decrease in income during the war period, 5% of whom reported a complete loss of income. However, a limited number of them indicated that the decline has nothing to do with the war, but rather with the usual agricultural agenda, as this period is considered a period of transition from summer agriculture to winter agriculture. However, for the vast majority of respondents, the decline in income was the result of either their inability to reach their lands and being unable to work, or because of their exposure to direct physical assault that led to them being unable to work, or because of the high prices of production inputs, or because of high transportation costs and difficulties. Distribution and marketing. The table below shows the relative distribution of respondents’ answers by governorate.

Table (8): Income loss by Region

<table>
<thead>
<tr>
<th></th>
<th>Jenin</th>
<th>Tulkarem</th>
<th>Bethlehem</th>
<th>Jericho &amp; JV</th>
<th>Tubas</th>
<th>Hebron</th>
<th>Nablus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>78%</td>
<td>89%</td>
<td>100%</td>
<td>89%</td>
<td>69%</td>
<td>78%</td>
<td>50%</td>
<td>80%</td>
</tr>
<tr>
<td>No</td>
<td>22%</td>
<td>11%</td>
<td>0</td>
<td>11%</td>
<td>31%</td>
<td>22%</td>
<td>50%</td>
<td>20%</td>
</tr>
</tbody>
</table>

For some, the high prices of vegetables in the local market and the high demand for vegetables to Israel supposedly contributed to the gains for vegetable farmers. However, in reality, the difficulties and limitations of access to agricultural land, the impact of direct attacks, and the challenges resulting from field conditions have led to a reversal of the effect of high prices, and thus to the decline in income indicated by the vast majority of farmers.
Results and Recommendations

This section presents an overview and analysis of the findings derived from a comprehensive study evaluating the repercussions of the Israeli war on the Gaza Strip on the agricultural sector in the West Bank. The study reveals significant disruptions in agricultural activity, mirroring challenges encountered by various economic sectors due to transportation difficulties, movement restrictions, settler attacks, and incursions by occupation authorities.

The results indicate that the Israeli war on the Gaza Strip, and its repercussions and economic impacts in the West Bank, greatly affected activity in the agricultural sector, in a similar way to its impact on the rest of the economic sectors. As we mentioned previously, 98% of economic establishments indicated that they were affected as a result of the difficulty of transporting goods and the difficulty of movement. While 79% of the establishments indicated that settler attacks and repeated incursions into areas of the West Bank by the occupation authorities constitute one of the main obstacles to their work, and 8.6% of them indicated that they were directly affected by attacks by settlers and the occupation army, while this percentage reached 16% for vegetable farms, according to the results of the survey that We did it. Also, 86.9% of establishments indicated that they suffer from the high cost of goods and commodities. In addition to the lack of sufficient availability of goods or raw materials for 76.5% of establishments, which affected their normal work. These are the same problems faced by vegetable farmers, according to the survey results, and in very similar proportions.

The following is a summary of the most prominent results of the study:

1. Challenges Faced by Vegetable Farmers:
   - Approximately 50% of Palestinian vegetable farmers encountered difficulties accessing their agricultural lands, with instances of complete denial throughout the war.
   - 16% faced direct physical attacks, concentrated in areas classified as (C) in Jenin, Tulkarm, Jericho, Tubas, and Hebron.
   - 17% experienced direct attacks on their property, resulting in the destruction of crops, irrigation systems, energy generators, and greenhouses.
   - 24% were prevented from practicing agricultural activities such as irrigation and harvesting at least once during the war.
   - Half of the farmers faced obstacles in accessing production inputs like seeds, fertilizers, and pesticides.

2. Economic Impacts:
   - 81% reported an increase in the prices of production inputs.
   - 75% faced difficulties in marketing their goods and an increase in transportation costs.
   - 80% reported a decrease in income during the war period, with varying degrees of severity.
   - All areas known for growing vegetables were significantly affected, except Qaliyya Governorate.

3. Ownership and Land Size:
   - Approximately 50% of vegetable farmers also own olive trees, and half of them own fruit trees.
   - 20% own trees, olives, and fruit together, in addition to vegetables.
   - 20% own olive and fruit trees, poultry, or livestock, in addition to vegetables.
   - 32% own a plot of land between 5-10 dunams, while 20% own a property of more than 20 dunums.

In light of all these challenges and attacks, it is necessary for government agencies, specifically the Ministries of Agriculture and the National Economy, to respond urgently through policies and interventions that provide support and protection to farmers. The current conditions also re-sound the alarm about the necessity of formulating serious
policies in the medium and long term in order to reduce dependence on Israel in the Palestinian agricultural sector, whether as a source of production inputs, or as an export market for Palestinian agricultural products. Specifically, the paper recommends the following interventions:

1. The Palestinian government must establish an urgent emergency fund aimed at compensating farmers and directly supporting them without the need to wait in compensation queues.
2. Pressure should be directed towards the government to increase the budget allocations for the Ministry of Agriculture, aiming to enable it to accommodate and meet the increasing needs of farmers due to the negative impact of the Israeli aggression on Gaza.
3. That the Ministry of Agriculture assumes responsibility for following up and exposing the attacks launched by the occupation and settlers on Palestinian farmers before the international community, by communicating with international governments and demanding an immediate reaction against these violations.
4. Institutions working in the agricultural sector must coordinate their efforts to document and account for attacks on vegetable farmers. It must also develop a unified database on these attacks and the resulting losses, while developing a national strategy to respond to emergencies and support farmers.
5. The Ministry of Agriculture and the Ministry of National Economy, in cooperation with relevant institutions, must develop an urgent plan to support farmers in general. This includes identifying farmers affected by attacks and losses and forming a rapid response fund to assist farmers in emergency situations and strengthen their resilience.
6. Strengthening efforts to solve agricultural marketing problems in Palestine by empowering currently weak agricultural companies and protecting Palestinian products, while preventing the entry of settlement products, strengthening market control, and supporting farmers’ products in public procurement.
7. Activating the institution of the Risk Prevention and Agricultural Insurance Fund by starting to implement comprehensive agricultural insurance, accelerating the disbursement of previous compensation to affected farmers, and establishing a compensation system for the damages resulting from this Israeli aggression.
8. Expedite the adoption and implementation of the tax refund for livestock that was agreed upon with the National Ministerial Committee for Tax Refund, which includes the Union of Farmers’ Associations to support livestock farmers and strengthen their steadfastness against Zionist attacks.
9. Expedite the issuance of the Agricultural Councils Law by the President’s Office, as these councils are considered a protection mechanism for farmers and their products.
Study

Challenges Facing Vegetable Farmers in the West Bank Following the Aggression on the Gaza Strip

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