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Agriculture in the Palestinian Jordan Valley

Current Reality and Future Prospects

By Khaled Daoud

The Palestinian Jordan Valley extends from Jericho in the south to Bisan in the north and covers an area of about 1.5 million dunums, which equals 25 percent of the total area of the West Bank. The population of the Jordan Valley counts more than 60,000 persons, including 52,000 Palestinians, who all fall under Israeli civilian and security control. This area has various climate zones that allow farmers to plant and produce a large variety of unique products with high economic feasibility. The contribution of the Jordan Valley to Palestinian revenues is estimated to amount to around US$100 million, and agriculture-related enterprises in the Jordan Valley provide jobs for around 20,000 men and women. A World Bank report published in 2013 states that, at that time, losses to the Palestinian economy that resulted from restricted access to Palestinian natural resources and wealth in Area C (including the Jordan Valley, Jordan River, and the Dead Sea area) reached US$3.4 billion.[i]

Farmers in the Jordan Valley face many obstacles, most of them related to the movement restrictions imposed by the Israeli occupation authorities, as this area is considered a military zone where military training is regularly conducted. Thus, Israel does not allow farmers to open agricultural roads that would facilitate the transportation and selling of products, and Palestinian farmers are not allowed to install water pipelines to irrigate their land or provide drinking water for their livestock.

> *Irrigation Water: Previously signed agreements stipulated that Palestine was to receive 262 million cubic meters of water from the Jordan River - but it has not received any of it. Israel diverts these water quantities to benefit their farmers in Al-Naqab (the Negev). Israel also uses the 100 million cubic meters of water that come from the wells of the Jordan Valley area to benefit the agriculture of the settlements. In fact, Israeli settlements are overusing the groundwater by pumping, thus negatively affecting the wells of Palestinian farmers.*[ii]

The Jordan Valley area constitutes 55 percent of the total area of irrigated lands in the West Bank. It accounts for 60 percent of the vegetables that are produced in the West Bank and 100 percent of the date harvest in Palestine.

The systematic policy of the occupation is to displace Palestinians from the Jordan Valley. Before 1967, the total number of communities in the area amounted to 28; with the beginning of the occupation this number was reduced to seven, due to displacement and demolitions. Subsequently, Israel adopted the Elon Project that created a security zone along the eastern mountains - stretching from Al-Khan al-Ahmar in the south to the Tubas Mountains in the north, with a depth of 20 kilometers - and began to distribute demolition orders for houses, tents, and farmers' caravans. In 2017 alone, it was estimated that Israel submitted 250 such notifications. In addition, Israel does not allow farmers to build in the area, not even to pitch a new tent, which indicates that in the coming years there will be no residential options for farmers.

Military training on agricultural lands that have been declared a military area, which prevents their use for agricultural purposes.

Confiscated lands.

During the year 2017 alone, the following measures were taken: The demolition of a nine-kilometer transition pipeline in the area of Al-Hadedyeh; the demolition of a four-kilometer transition pipeline in the area of Al-Sakout; the demolition of a two-kilometer transition pipeline located at Abu Khayzaran Company; the detention of vehicles on a daily basis, either on agricultural roads or while transporting building materials; the demolition of dozens of caravans and tents.

All Jordan Valley residents work in agriculture, be it in plant and/or animal production. Farmers own small holdings that do not exceed five dunums per family, and they produce mostly seasonal vegetables, the most important of which are eggplant, cauliflower, zucchini, cabbage, and yellow corn. Since these crops, unfortunately, are generally in low demand on the local market, many farmers try to plant other crops, but they do so with little or no guidance on how to grow and harvest these vegetables and without any information regarding the respective levels of demand.

Dates are an important crop for Palestinian farmers. Date trees are currently being planted in the Jordan Valley, mainly in Jericho, on around 18,000 dunums. The total production in 2017 reached 8,000 tons. Of these, 65 percent were exported, as the quality of the product complies with high international standards and is marketed extensively worldwide. The Medjoul date is an internationally unique product and sold at high prices. Given the promising potential of the Palestinian date sector, planting areas are being increased in direct response to market demand.

Similar to other sectors, the date sector faces a number of obstacles, most importantly the occupation and Israel's control over the water supply, but also the razing and vandalism carried out by settlers in the occupied territories. Dates are among the most attractive products for investment, be it by individual capital investors or large companies, which discourages the exploitation of small areas by small farmers, as does the high cost of construction. For example, the cost of production on ten dunums for five years amounts to about US$3,000.

More than six Palestinian companies are fully or partially engaged in date production. These companies are well qualified and possess the necessary technical expertise regarding the special practices required both on the farm and post-harvesting. Specifically, these companies own the latest packinghouses, most of which utilize laser techniques.

The medicinal and fresh-herbs sector carries much promise as well, but it faces a number of substantial obstacles, as growing herbs requires access to sweet water, technical expertise, and specially trained workers. More specifically, the challenges can be outlined as follows.

1. Palestinian export is linked with Israel companies that consider Palestinian goods to be reserves rather than commodities. The Palestinian product is only exported when it is better than the Israeli product; whereas in cases where Palestinian and Israeli products are equal, priority is given to the Israeli product.

2. The cost of herb production is high. For example, garlic and onions cost up to US$10,000 per dunum, without labor. It is important to highlight that if there are any marketing problems during one season, the loss could reach US$20,000 per dunum of onions. This is one reason why these items are not sold in the local market.

3. Medicinal herbs require skilled labor, and Israeli and Palestinian producers compete to attract these workers. Unfortunately, workers and employees frequently choose to take on jobs that pay more. Israeli farmers pay a technician about US$100 per day, an amount that Palestinian farmers cannot afford, as they can only realize half the sales that Israeli farms secure for the same products.[iii]

4. Fertilizers and pesticides are expensive, and sometimes the occupation authorities prevent the entrance of such products.

At this time, around 1,000 dunums are planted with herbs and medicinal herbs. Whereas there is little local demand for these products, herbs are sold fresh on the international market where demand is high. Palestinian herbs are exported to American, European, and Russian markets, where such items as green onions, coriander, parsley, mint, and thyme are used in the preparation of salads and other foods. Additional products include *maramiyya* (sage), *malsa* (lemon balm), and *hussalban* (rosemary), which are used in the pharmaceutical

Vandalisim on agricultural lands – Tayaseer area.

Destruction of Palestinian harvest.

Tomato greenhouse in the Jordan Valley.

A farm for seedless grapes.

During the last decades, Palestinian farmers have introduced a number of new crops that include trees and other produce, such as dates, medicinal herbs, and baby cucumbers.

industry. Each of these markets has particular criteria for each product type. American standards focus on the product being free of insects and pests, whereas there is not much concern about the use of pesticides. European markets, however, focus on the amount of pesticides used, and there is a preference for organic products. The Russian market is the least verifiable regarding these standards, but the main concern is a low purchase price.

The high quality of the Palestinian herb harvest makes these products attractive on the international market. There are a number of factors that contribute to the consistent high quality, including the warm climate that allows farmers to make the plants available throughout the year; suitable soil; the high quality of production, as farmers comply with the relevant quality and safety standards and apply the best agricultural practices; and finally, the wealth of experience that Palestinian farmers have in growing medicinal herbs, as they are considered an essential part of Palestinian heritage, cuisine, and traditional medicine. The Ministry of Agriculture expects that the demand for herbs will require 5,000 dunums of land. In addition, three fully equipped packinghouses that are now available possess international quality certificates, most notably GlobalGap and RC.

Seedless grapes constitute a favorable sector since the area on which grapes are planted can serve a double purpose: grapes can be combined with vegetable planting. In the past, grape crops generally lasted for more than 10 years, during which time the fields were used solely for this crop. Nowadays, around 2,000 dunums of seedless grapes are distributed throughout the entire Jordan Valley, especially in the areas of Nasariyah and Ain al-Baydah. What is new is that this crop is produced from April until June, thus making it a complementary harvest to traditional farming that does not start before August because temperatures are too high during June and July. Moreover, due to the high demand for this unique product, the average price is not less than US$2 per kilogram. The production per each dunum amounts to no less than 2 tons for protected plants and 3.5 tons for uncovered plants. The Palestinian Agricultural Relief Committees, in cooperation with other institutions and the Ministry of Agriculture, is trying to increase prospects for the export of seedless grapes. The most significant obstacles for this sector include lack of irrigation water, lack of available varieties, lack of experience in growing this crop, and a lack of agricultural research and adequate centers to carry out such research.

Baby cucumbers are the best kind for pickling. This crop is characterized by its small size and the fact that it draws good prices. Palestinian farmers in the Jordan Valley started to plant this type of cucumber in 2016. In the Jordan Valley, 150 dunums are planted with protected cucumbers (in greenhouses, as required for baby cucumbers) out of a total of 500 dunums planted with cucumbers in the West Bank. The area for cucumber planting in the West Bank could be increased up to 2,000 dunums in order to respond to the needs of Israeli factories. One of the advantages of this type of farming is that the farmer signs an agreement with the companies for the price of US$1.50 per kilogram before planting. But the disadvantages include the fact that production is very labor-intensive, and the cucumbers must be of certain size. If the agreed-upon size is exceeded, the product will have to be sold in the local market for a maximum price of US$0.50 per kilogram. The most negative aspect of this type of farming that it is completely linked to the Israeli factories. Any disruptive event or security incident could mean that these farmers would lose all the benefits of production, thus destabilizing thousands of families who cultivate cucumbers for the local market.

The Jordan Valley is cultivated with more than 1,000 dunums of tomatoes, the main crop for the farmers of Furush Beit Dajan and other farmers in the Jordan Valley. Although the revenue to farmers from this product is not very high, tomato cultivation is considered to be part of a resilience economy. Tomatoes do not require large amounts of water and can easily survive the water shortage. In addition, they do not need a lot of fertilizer or pesticides.

Until 1983, Palestinians used to produce enough watermelon to export to Jordan and the Gulf. Later on, however, Israeli melon flooded the Palestinian local markets and seedlings started to succumb to disease due to poor soil, leading farmers to abandon the crop. Recently, however, some nurseries have managed to produce seedlings that were grafted onto soil-resistant roots. They were planted in the Jordan Valley through a pilot project that has had five years of success. The project produces about 1,000 dunums of watermelon and is a good source of revenue for farmers. If irrigation water were available, it would be possible to expand the farming area to thousands of dunums.

A farmer from the Jordan Valley collects firewood since there is no electricity to use for heating.

There are only two central markets that receive all the Palestinian agricultural products: the Qabatiya/Jenin market and the Beita/Nablus market. The problem here is that these markets are subject to the municipalities, on whose land they are located, and the Ministry of Agriculture and the Ministry of the Environment have no authority over them. The municipalities deduct 12 percent of the price of the goods as sales fees.

These markets are flooded by Israeli products, which are sold at lower prices than similar Palestinian products. In general, the Palestinian products are of a higher quality and are not used for export purposes. The Israeli products available at Palestinian markets constitute the quantities that remain from the export harvest. They are dumped on the Palestinian markets not to compete with the Palestinian product but to destroy the Palestinian product.

There is a marketing system in which suppliers move among the farms to buy what their specific markets need. This system is accepted by farmers since it is not subject to transport costs to the central market, nor is it subject to the sales fees requested by the municipalities.

In sum, the main obstacles that face the agriculture sector are as follows. First, it is forbidden for Palestinians to excavate groundwater in the Jordan Valley. This leads to limited irrigation water and farmers' inability to expand their irrigated land. In the northern Jordan Valley there were seven underground wells owned by Palestinian farmers before the year 1976, which were enough for all agricultural areas. From 1976, the Israeli civil administration has had an agreement with the seven well owners. This agreement says that the wells would be transferred to the Israeli authorities in return for supplying the farmers with sufficient irrigation water for their farms. The Palestinians committed themselves to the decision, but the Israelis did not honor the agreement. Year by year they decrease the amount of water that that they have agreed to provide and instead give it to the settlements for their farming needs. The names of the well owners affected by this are Ahmad Foqaha, Al-Qafaf Abu Mansour, Al-Tamimi, Al-Sharakah, Al-Hamoulah, Bardala, and Mohamad and Sameeh Al-Khader.

Second, movement is restricted between the agricultural lands because of the existence of settlements along the length of the Jordan Valley. At present, there are 32 settlements in the Jordan Valley, and the Israeli cabinet has decided to build three more. Work has already begun on these new settlements. Three checkpoints – Tayasir, Hamra, and Ma'ale Freim – greatly hinder any movement by Palestinians outside the Jordan Valley. These barriers control the movement of goods and products to and from the Jordan Valley, which negatively affects the agricultural products and their quality.

Third, the costs of agricultural production are high due to the lack of sufficient roads to transport these goods and the fact that there are only three crossing points.

Fourth, farmers are unable to build facilities to house workers on the lands since Israel demands that that they obtain a license. This means that each worker must go back and forth every day, making life more difficult for the workers and doubling the cost of labor.

Fifth, machinery – such as tractors, cars, water tanks, water pipelines, and water pump generators – is confiscated on a daily basis, forcing many farmers to leave their land.

Sixth, there are higher production costs for Palestinian farmers due to their need to purchase fertilizers and pesticides from Israel, making it 30 percent more expensive than the Israeli market, since many of these products are taxed by both Israel and the PA.

Seventh, the Ministry of Agriculture has no Jordan Valley development plan or agricultural insurance to reduce the risks that the sector faces.

The future prospects of agriculture in general, and in the Jordan Valley in particular, depend entirely on the occupation and its procedures, and on the Oslo Accords and Paris Agreement signed by the Palestinian Authority and Israel. However, these agreements frequently benefit Israel to the detriment of Palestinian farmers. For example, Israel eliminated some agricultural crops that compete with their own by flooding the Palestinian market with the same product at cheaper prices, forcing Palestinian farmers to abandon the cultivation of these products. An example of this situation is the thousands of dunums that have been planted with citrus fruits. The occupation floods the local market with citrus fruits that have been irrigated with treated water and sells them at cheap prices. This also happens to banana and watermelon harvests.

Palestinian farmers need support in learning how to introduce and produce new crops. Farmers also need new markets in which to sell their products and alternative solutions to water shortages, such as ponds and water pipelines. The Jordan Valley needs a specialized agricultural college and vocational training centers, as well as a research center and advanced nurseries. Israelis not only have access to numerous internal and external crossings for the disposal of their products, they also have the technology, research centers, and expertise, and most importantly, they enjoy freedom of movement and work within the Jordan Valley, unlike the Palestinian farmers, whose every movement is risky and expensive.

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All photos courtesy of the Palestinian Agricultural Relief Committees.

[i] Press Release, "Palestinian Access to Area C Is Key to Economic Recovery and Sustainable Growth," The World Bank, October 8, 2013, available at http://www.worldbank.org/en/news/press-release/2013/10/07/palestinians-access-area-c-economic-recovery-sustainable-growth.

[ii] Palestinian Water Authority (2013), *Status Report of Water Resources in the Occupied State of Palestine - 2012*, available at http://www.pwa.ps/userfiles/file/%D8%AA%D9%82%D8%A7%D8%B1%D9%8A%D8%B1/%D8%AA%D8%B5%D9%86%D9%8A%D9%81%201/WR%20STATUS%20Report-final%20draft%202014-04-01.pdf.

[iii] Because the Palestinian market is used as an alternative to the Israeli market, Israeli companies will only refer to Palestinian products in cases when there are insufficient quantities available in the Israeli market. Palestinians furthermore cannot export directly but need to use Israeli middlemen, which increases the cost; and finally, the extra quantities produced are depreciated.