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**The Palestinian Agricultural Sector  
in the Wake of the Pandemic:  
Challenges and Effective Coping Strategies**

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The Palestinian Agricultural Sector in the Wake of the Pandemic:  
Challenges and Effective Coping Strategies

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## Foreword

This study was undertaken within the remit of the main research program at MAS during 2021, to study the different effects of the Covid-19 pandemic on the Palestinian agricultural sector, both plant cultivation and animal breeding, along the entire supply chain. This study is part of a comprehensive research drive, initiated by MAS at the outbreak of the pandemic, to assess the pandemic's repercussions on various macroeconomic, sectoral and social indicators, specifically in light of the research priorities identified by the Palestinian Ministry of Agriculture.

Therefore, the study assesses the impact of the pandemic on production inputs; farming methods; diversification in food production and marketing chains; consumer behavior and health awareness on the importance of consuming agricultural products. The study also analyzes the extent to which the pandemic contributed to strengthening the “return to the land” strategy, to enhance food security at the national level. This study aims to identify coping strategies that can protect the agricultural sector, considering the current pandemic, or any future shocks to which the agricultural sector may be exposed, in order to adapt to the long-term repercussions of the pandemic.

The study illustrates the negative impact of the pandemic on farmers' ability to access production inputs and their ability to market their agricultural products, both internally and externally, as well as weak demand for agricultural food products and high levels of food insecurity. The majority of agricultural producers in both the plant cultivation and animal breeding sectors believe that there is an urgent need to diversify sources of supply for production inputs, while establishing factories to provide raw materials for agriculture. They also stressed the need to develop a strategic system for securing production inputs, as well as adopting an agricultural calendar at the local level. Producers emphasized the importance of linking agricultural production with local, agricultural, food-processing factories.

Therefore, among its numerous recommendations, the study recommends the need to develop coping strategies for the agricultural sector in the face of the pandemic, or any future shocks to which this

sector may be exposed. In addition, government needs to adopt effective and direct interventions to reduce the repercussions of the pandemic on the sustainability of production inputs. This includes providing a fund to support/protect small-scale agricultural producers in securing their production inputs; activating the agricultural insurance system; developing lending programs or expanding the work of current lending institutions; and setting up mechanisms to compensate farmers by activating the work of existing government funds. Moreover, there is a need to clarify features of the strategy of economic disengagement from Israel, as well as practical steps that need to be taken regarding the agricultural sector.

MAS would like to thank Dr. Rabeh Morrar and Ms. Wafaa Al-Bitawi for their efforts in preparing this study, with the help of Ms. Dalia Abu Thaher, the study's research assistant. MAS also thanks the Ministry of Agriculture and the agricultural sector expert Dr. Jamil Harb, who reviewed the first draft of the study and suggested numerous important improvements. Finally, MAS extends its gratitude to the Arab Fund for Economic and Social Development for financing this study, and for its continued support to MAS and Palestinian research priorities, helping to advance (and further develop) the Palestinian economy.

Raja Khalidi  
Director General

## **Executive Summary**

The agricultural sector has been affected by the Corona pandemic and associated containment measures adopted by the government. As with other productive sectors, this contributed to magnifying the challenges that the agricultural sector already faced. The first shocks of the pandemic adversely affected farmers' ability to access production inputs, accompanied by high prices for a large number of production inputs and a decrease in farmers' cash flow. The demand for fresh agricultural products (both vegetable and animal produce) decreased during the first months of the pandemic, because of the restrictions imposed on movement. This was accompanied by high unemployment rates, low household incomes and the closure (or decrease) in the work of many facilities in the local market, through which a large proportion of agricultural products are brought to market (including restaurants, hotels, pastry shops, food-processing factories). At the same time, the pandemic contributed, to a limited extent, to the revival of home-based farming and agriculture directed at self-consumption. The demand for seedlings destined for cultivation in home gardens increased, and many governmental and non-governmental measures were directed at strengthening home-based farming and supporting food security and self-sufficiency, especially in the first months of closure.

Hence, the pandemic revealed the extent of the structural weakness of the agricultural sector in Palestine in the event of crises. Despite the subsequent easing of precautionary closure measures imposed by the government to prevent the spread of the pandemic, this sector still suffers from the negative repercussions of the pandemic. Therefore, this study aims to examine the comprehensive effects of the Corona pandemic on the Palestinian agricultural sector (both plant cultivation and animal breeding), across the agricultural supply chain. The study assesses the impact of the pandemic on production inputs; farming methods; diversification in food production and marketing chains; consumer behavior and health awareness on the importance of consuming agricultural products. The study analyzes the extent to which the pandemic contributed to strengthening the "return to the land" strategy, to enhance food security at the national level. This study also aims to identify coping strategies to protect the agricultural sector in the face of future shocks

that the agricultural sector may be exposed to, in order to adapt to the long-term effects of the pandemic.

The study utilizes a descriptive, analytical approach in order to achieve its objectives. A literature review was conducted in order to summarize the reality and structure of the agricultural sector in Palestine, in order to identify the most prominent challenges that this sector faced during the Corona pandemic. Data was also collected and analyzed using appropriate statistical analysis tools, in order to analyze the actual impact of the pandemic on this sector across supply chains, and to identify response strategies required to meet current and future challenges.

Two separate questionnaires were designed targeting producers in both the plant cultivation and animal breeding sectors. These questionnaires were distributed to a random sample of 377 producers (271 in the plant cultivation sector, 106 in the animal breeding sector). In-depth interviews were also conducted with some agricultural engineers. The study population was limited to four geographical areas: Jericho and the Jordan Valley; Qalqilya; Jenin and Tubas; and Hebron. The majority of plant crops/products and animal production activities are concentrated in these surveyed areas.

The study illustrated the negative impact of the pandemic on the ability of farmers (especially small-scale ones) to access production inputs, due to closure measures imposed by the government in order to prevent the spread of the pandemic. Fertilizers and pesticides in plant production are considered the most-affected production inputs, followed by labor, seedlings and seeds. Other inputs, namely fodder and veterinary medicines for animal breeding were also significantly affected, compared to other inputs. High input prices, and the difficulty in obtaining these because of movement restrictions, were among the most prominent challenges faced by farmers in accessing production inputs, followed by the non-acceptance of deferred payment - or purchase on credit - by suppliers.

One of the indicators of the negative impact of the pandemic on agricultural production and diversification in food chains is that a large percentage of farmers resorted to changing agricultural production, because of the significant

changes in the form and level of demand. This effect varied across different agricultural products. Vegetables (greenhouse and outdoor cultivation) and field crops were affected more than tree cultivation (rain-fed and irrigated). A large percentage of farmers also reported that they had been forced to reduce the quantities of agricultural production (both plants and animals) that they initially planned.

The pandemic exacerbated the challenges related to the marketing of agricultural products, because of the difficulties in movement and consumers' ability to access central and local markets during the closure, especially at the beginning of the pandemic. This negatively affected farmers' ability to access markets to sell their crops and products. Women's projects in food production/processing were also greatly affected, especially those produced and marketed through women's associations and cooperatives, particularly given the cessation of internal and external tourism, exhibitions and bazaars, as well as the closure of schools. All these are important marketing outlets for the products of women's projects. Moreover, producers in both the plant and animal sectors resorted to developing and using decentralized marketing methods, in order to withstand problems resulting from the closure of central markets during the pandemic. The study illustrated that there is a lack of marketing expertise for many farmers, in a way that prevents them from exporting their products abroad, as the cost of the supply chain for exporting agricultural products to foreign markets increased.

Economic activity ceased across many sectors because of the pandemic. This included the loss of jobs and the erosion of household incomes (to a large extent), due to the financial crisis of the Palestinian government and its inability to pay salaries to its employees (especially at the beginning of the pandemic). All this led to a decrease in the purchasing power of many families, which further led to weak demand for agricultural food products and high levels of food insecurity.

Many families in Palestine (especially in rural areas) returned to the land and revived home-based farming (both plant/animal production), to meet some of the family's needs for vegetables, meat and dairy products. This occurred in line with advanced health awareness on the importance of consuming organic



agricultural products. At the same time, initiatives launched by some government agencies and relevant civil-society institutions contributed to encouraging citizens towards this type of agriculture. Many governmental and non-governmental agencies also worked to implement numerous activities and interventions that aimed to maintain food security in Palestine, targeting groups that are likely to be more affected than others by the pandemic.

Most surveyed farmers believe that there is an urgent need to diversify sources of supply for production inputs and to establish factories that provide raw materials for agriculture, in order to ensure an abundance of stocks of production inputs, and to provide local sources that replace the import of production elements from abroad. Most surveyed farmers also stressed the importance of ensuring the continuity of water and electricity flows to agricultural facilities, as well as finding practical and sustainable solutions to the problem of debt accumulation with municipalities and electricity suppliers. Farmers and agricultural establishments attach great importance to establishing a strategic system for production inputs such as seeds, while increasing the number of nurseries that provide seedlings for vegetables and fruits throughout the year.

A large percentage of farmers, in both plant and animal production, stress the importance of developing an agricultural calendar at the local level, ensuring the diversity of agricultural crops, while achieving a balance between supply and demand. A large percentage of producers in the plant and animal sectors also agree to the need to accompany the development of this calendar with awareness campaigns for producers about the importance of diversification in agriculture, to reduce the negative effects of the weak purchasing power of consumers, as well as reducing the incidence of dumping on markets.

The vast majority of farmers in plant production also believe in the importance of regulating central markets in a more equitable manner for small-scale farms, in order to enhance competition with large traders, reducing their ability to control prices. The results also emphasized the need to link agricultural production to local food processing factories.

The study presented several important recommendations and interventions for decision-makers and other relevant authorities, that highlight immediate priorities arising from the pandemic and coping strategies for the agricultural sector to be better equipped to face future external shocks that might strike this sector.

The study recommends that official authorities and relevant institutions ensure the availability of production inputs, with a reserve quantity sufficient for at least three months, as one of the main strategies in confronting the negative effects of the pandemic on the production inputs' market in Palestine. Additionally, the government ought to make effective and direct interventions to limit the repercussions of the Corona pandemic on the sustainability of production inputs, such as providing a fund to support/protect small-scale agricultural producers by sourcing production inputs. There is also the need to activate agricultural insurance systems and develop lending programs, or expand the work of current lending institutions. At the same time, there is a need for effective interventions from regulatory authorities, by setting minimum prices for agricultural products - whether inside or outside central markets - to reduce the losses to which farmers are exposed during disasters and crises. There is also a need for ensuring the application of necessary controls and standards for the safety of agricultural products, especially those coming from Israel, and the development of regulatory systems and procedures.

Concerning coping strategies related to the development of marketing chains, the study recommends the need for government to establish a mechanism to compensate farmers in the event of an inability to market their products. This can be performed by activating existing government funds; such as the Palestinian Agricultural Disaster Risk Reduction and Insurance Fund (PADRRIF) and the Palestinian Agricultural Credit Institution (PACI).

Furthermore, there is a need for relevant authorities to assist farmers in developing standards and measurement systems, as well as quality-assurance systems that ensure that Palestinian agricultural products conform to international standards for food safety. This includes training farmers on effective marketing strategies, and methods for finding new markets locally and internationally, as well as creating linkages between agricultural production

and agricultural food processing factories. This also requires the committed cooperation of embassies and their commercial attachés (if any) overseas.

With regard to coping strategies for diversifying food chains, the study recommends that the Ministry of Agriculture adopt a plan that aims to establish a Palestinian agricultural calendar as one of the most important emergency government interventions. This needs to be implemented to protect the agricultural sector and small-scale farmers in the short and long term and establish governmental (and other relevant) bodies. In addition, such authorities need to organize training programs for farmers on a regular basis, to deal with the cultivation of new varieties of vegetables and fruits that comply with the requirements of the agricultural calendar. Training also needs to cover the importance of agricultural diversification to achieve a form of self-sufficiency, and to dispense with importing products, especially from the Israeli market.

There is a need to adopt strategies and practical steps in order to promote “the return to the land” trend that emerged during the first months of the pandemic. This is an effective way to reduce levels of food insecurity at the national level, by providing material and non-material support to small farmers, while raising awareness among farmers on the need to move towards innovative (pioneering) projects in the agricultural sector. This is especially relevant for youth, given the existence of promising investment opportunities in this sector. Moreover, relevant authorities ought to organize training programs that cover home-based farming, the use of modern farming techniques for home-based livestock projects, and the use of modern techniques for animal breeding.

The above measures need to be accompanied by raising the level of awareness among citizens on the importance of consuming agricultural products, as part of disease prevention, in order to promote sound food practices. This requires publicity and awareness campaigns by official authorities (such as the Ministry of Agriculture and the Ministry of Health), and the establishment of regulatory authorities. Their role is to ensure the provision of healthy agricultural products at fair prices to all segments of society.