# ${ m LCPS}$ المركز اللبناني للدراسات The Lebanese Center for Policy Studies

# **Policy Brief**



This policy brief is supported by the Friedrich Naumann Foundation Beirut Office. The opinions expressed in this brief do not necessarily reflect those of the donor.

#### About the author

Salem Darwich is a professor at the Faculty of Agriculture at the Lebanese University. He heads the Department of Agro-economics, and is a member of the Higher Committee of Research and Development at the Lebanese University. He is a specialist in issues related to the economics of agricultural, rural, and agro-food development. Salem holds a PhD in Agricultural Economics from ENSAM (École Nationale Supérieure d'Agronomie de Montpellier).

1 Consultation and Research Institution. October, 2019. Road map for the agro-food sector in Lebanon-UNIDO. Final Report. 67 pages. Accessed at: https://open.unido.org/api/documents/22583891/download/Road%20Map%20Agro-food%20sector%20Lebanon.pdf

# Lebanon's Economic Crisis by Sector: Agriculture's Roadmap to Resilience

Salem Darwich

## Introduction

The agricultural sector in Lebanon has been significantly impacted by the country's economic crisis. The ongoing economic and political turmoil has resulted in many challenges that have affected farmers and their ability to produce crops and livestock. Prior to the crisis, which began in October 2019, Lebanon's agricultural sector was already beset with productivity constraints, limited access to finance, insufficient agricultural technologies, employment challenges, inefficiency in the use of water and inputs, poor infrastructure, inefficiencies of the public extension service, and weak institutional support, in addition to gender gaps in terms of access and control over resources, decision making, and access to finance.<sup>1</sup>

The crisis has only amplified existing problems, devastating the agricultural sector, threatening the country's food security, and putting many farmers at risk of bankruptcy. Political instability and protests have made it difficult for farmers to transport their goods to markets, leading to spoilage and financial losses. The closure of borders due to Covid-19 pandemic restrictions has also disrupted export markets, further affecting farmer revenues.

- 2 LCPS. March 2017. Missed Opportunities amid Great Potential in the Agro-Food Sector: Promoting Dialogue Among the Private Sector.
- 3 Chehayeb K. September 13, 2022. Lebanon: Central Bank lifts all expensive fuel subsidies; accessed at: https://apnews.com/article/ middle-east-lebanon-prices-w orld-bank-549ee4d168a65d42 fc8cfadeca7ae5dc
- 4 Kafalat, 2015a. What Is the iSME Programme? Kafalat S.A.L./iSME Programme. <a href="http://www.kafalatisme.com">http://www.kafalatisme.com</a> .lb/what-is-the-isme-program me.>
- 5
  Food Security Program,
  American University of
  Beirut, (2022, July), 'Lebanon
  Food Security Portal Food
  Security Brief (No. 27)',
  American University of
  Beirut,
  <a href="https://www.aub.edu.lb/fafs/foodsecurity/Documents/20">https://www.aub.edu.lb/fafs/foodsecurity/Documents/20</a>
  22-07-02>, PDF.

6
Food and Agriculture
Organization (FAO). (2023).
Lebanon at a Glance.
Webpage. Retrieved from
https://www.fao.org/lebanon
/fao-in-lebanon/lebanon-at-a
-glance/fr/

One of the main challenges farmers have faced for the past several years is the lack of access to basic necessities, such as fuel, electricity, and adequate irrigation water sources.<sup>2</sup> This has had a drastic effect on crop yields, quality, and cost. The government has increasingly struggled to provide adequate fuel and electricity supplies, leading to significant shortages and frequent power outages. Making matters worse, the remaining subsidy on fuel was lifted in September 2022, significantly raising the cost of energy.<sup>3</sup>

Moreover, the depreciation of the Lebanese currency has made it difficult for farmers to afford the inputs they need for their production, such as fertilizers, seeds, and pesticides. In addition, access to loans became impossible due to the banking sector collapse. While Kafalat was one of the programs most preferred by Lebanese farmers for its ease of use—launching a USD 30 million program to increase investment in 2015<sup>4</sup>—the central bank is no longer approving such subsidized loans.

Furthermore, consumption decreased when the price of the Survival Minimum Expenditure Basket—an indicator used by humanitarian organizations to estimate needs—had increased from LBP 38,000 in September 2019 to LBP 790,000 in May 2022, close to a 1,300% increase.<sup>5</sup>

This policy brief aims to provide a concise overview of the current state of the agriculture sector and highlight key policy recommendations for transformative change. To address these pressing issues and unlock the sector's full potential, policymakers must prioritize comprehensive reforms and innovative solutions. By focusing on sustainable practices, technology adoption, market diversification, and rural development, agricultural productivity can be increased while promoting inclusive growth within the agricultural landscape.

# Lebanon's Agricultural Sector

Agriculture plays a relatively minor role in Lebanon's economy, despite the country having the highest proportion of arable land in the Arab world. With more than 200,000 hectares (494,000 acres), agriculture represents around 5 percent of the national gross domestic product (GDP) and employs 8 percent of the effective labor force. In addition to its primary agriculture production, the sector is a key contributor to Lebanon's important agro-food industry. This sector contributes an additional 5 percent to GDP, employing another 8 percent of the effective labor force, and constitutes a major and growing employer in the economy.<sup>6</sup>

7 Ministry of Agriculture. (2021). Agricultural Production Survey Results. It is estimated that the total agricultural cultivated area registered around 271,412 hectares in 2021 (259,809 ha in 2016), which constitutes around 25% of Lebanon's land area. It includes fields planted with seasonal crops, fruit trees, in addition to greenhouses.<sup>7</sup>

Table 1

Production of Lebanese agricultural products in LBP

	Year 2016		Year 2021	
Products	Value (1000 LBP)	%	Value (1000 LBP)	%
Animal production	822,941,585	27%	7,461,435,001	32%
Poultry	340,146,219		3,333,010,439	
Honey	71,441,780		311,494,088	
Plant production	2,171,114,518	73%	15,914,055,614	68%
Permanent crops	121,613,610		8,460,251,057	
Seasonnal crops	958,500,908		7,453,804,557	
Total production	2,994,056,103	100%	23,375,490,616	100%

Source Ministry of Agriculture 2016, 2021

The value of plant production in 2016 (seasonal crops 44%, permanent crops 66%) makes up about 73% of the total value of agricultural production (2,994,056,103,000 LBP). In 2021, the table above shows a slight decrease in the production of plant resources (-5 points), coupled with an increase of (+5 points) in animal production. The decrease in plant production has been transferred to animal production.

According to the Ministry of Agriculture (MoA),<sup>8</sup> Lebanon produces an array of agricultural products, including fruits, such as grapes (118,794 tons), citrus (333,796 tons), apples and stone fruits (552,850 tons), peaches and nectarine (74,784 tons), tobacco and olives (169,941tons), as well as high value-added products.<sup>9</sup> In this context, the production of domestic wine (6 million bottles) is considered to be one of the most important industries in Lebanese agriculture.

As for animal production, it is estimated that the total value (cows, sheep, goats, poultry, and bees) in 2021 accounted for about LBP 7,461 billion, of which poultry constituted 45%. Honey production reached about LBP 311 billion in 2021 (compared to LBP 71 billion in 2016).

8 Ministry of Agriculture. (2016). Agricultural Production Survey Results. http://www.agriculture.gov.lb /Statistics-and-Studies/Compr ehensive-Agricultural-Statistics

9 Ministry of Agriculture. (2021). Agricultural Production Survey Results. http://www.agriculture.gov.lb /Statistics-and-Studies/Compr ehensive-Agricultural-Statistics 10 Ministry of Agriculture Strategy 2015-2019 Link: https://faolex.fao.org/docs/p df/leb149670.pdf Agro-food makes up an important share of Lebanese trade. Agriculture—mostly fruits and vegetables, raw tobacco, spices, and livestock—and agribusiness—mostly processed and semi-processed food—are a major source of exports, accounting for over 21% of total exports. However, Lebanon is considered a net food importer, with local production satisfying only 20 percent of domestic consumption, which makes it vulnerable to food and agricultural product price volatility.

Table 2

Share of agricultural imports (2016, 2021)

	Year 2016		Year 2021	
Imports	Value (\$1000)	%	Value (\$1000)	%
Agricultural products	3,272,105	14%	2,335,861	14%
Total Imports	22,640,333	100%	16,192,788	100%

Source Lebanese Customs, 2023

The share of agricultural imports in 2016 accounted for about (USD 3.27 billion) and is estimated to be around 14% of total imports (USD 22 billion), registering the same level in 2021. However, the above table shows a decrease in both total and agricultural imports for the year 2021, largely due to the depreciation of the Lebanese pound and the Covid-19 pandemic.

Arab countries still represent the main export market for Lebanese agricultural products, as they constitute more than 90% of total agricultural exports. Five major Arab countries (Kuwait, Saudi Arabia, United Arab Emirates, Egypt, and Syria) make up about 68.4% of total exports. Fruit exports account for about 48% of agricultural exports.<sup>11</sup>

However, Lebanon's policy environment is marked by an absence of comprehensive regulations for agriculture. When laws are adopted, they lack effective implementation. Several initiatives were launched by the government to raise production quality and compliance with international standards, with the aim of making Lebanese food products safer and more competitive in the export market.

A specialized committee of experts was commissioned to draft a law in compliance with the European Economic Community Regulation 2092/91 to control Lebanese organic production. It was not until 2020 when the 'Regulating Organic Production' law was finally enacted to ensure the

11 Ministry of Agriculture, 2016. Study on agricultural exports and imports, service of economics, and marketing.

Organic agriculture is a farming approach that emphasizes natural processes, avoids synthetic chemicals, and promotes sustainability. Organic farmers employ techniques such as crop rotation, composting and biological pest control to maintain soil fertility, minimize environmental impact and support the natural ecosystem. Without robust regulatory frameworks, there is a lack of standardized guidelines and oversight to ensure the integrity of organic products. Without a clear legal framework, Lebanese farmers face difficulties in accessing markets, securing fair prices for their organic products, and obtaining financial supports or incentives specifically targeted towards organic agriculture. This hinders the expansion of organic farming practices in the country.

The Lebanese Standards
Institution – LIBNOR.
Libnor.gov.
<a href="http://www.libnor.gov.lb/CustomPage.aspx?id=20">http://www.libnor.gov.lb/CustomPage.aspx?id=20</a>

14 Regulating Organic Production, Law No. 158. (May, 2020). The Lebanese Constitution. تنظيم الانتاج العضوي، قانون . 158 رأيار، 2020). الدستور للبناني. (http://legiliban.ul.edu.lb/L aw.aspx?lawId=285272>

15 Abdallah, H. 2021. Evaluation des déterminants de la compétitivité du secteur agricole libanais: étude de la filière pommes (Doctoral dissertation, Montpellier SupAgro).

16
Food Security Program,
American University of Beirut,
(2022, July), Lebanon Food
Security Portal - Food Security
Brief (No. 27), American
University of Beirut.
<a href="https://www.aub.edu.lb/fafs/foodsecurity/Documents/20">https://www.aub.edu.lb/fafs/foodsecurity/Documents/20</a>
22-07-02>

17 Ministry of Agriculture. (2020). Lebanon National Agriculture Strategy 2020 - 2025. <a href="http://www.agriculture.gov.l">http://www.agriculture.gov.l</a> b/getattachment/Ministry/Ministry-Strategy/strategy-2020 -2025/NAS-web-Eng-7Sep202 0.pdf?lang=ar-LB> conformity of organic products to LIBNOR standards,<sup>13</sup> and that they meet all the conditions required for organic production.<sup>14</sup>

Similarly, policies regulating the market, food industry, issues related to food safety, important environmental impacts of food processing, also reveal important gaps in both legislation and implementation. Existing laws and regulations are poorly enforced due to low fines and a lack of coordination across multiple government agencies. Furthermore, it is known that policy coherence in Lebanon is missing, in part due to the lack of coordination across governmental institutions.<sup>15</sup>

Finally, effective implementation is a concern affecting many of these policy measures. A recent report published by the AUB in July 2022 noted that 'the United States Food and Drug Administration had seized food items of Lebanese origin amid food safety concerns, potentially limiting the country's agro-food exports,' which indicates these Lebanese laws and standards might be bad or not enforced as they should. An example of such products is the sesame tahini that was seized due to contamination with salmonella bacteria. <sup>16</sup>

In the current Lebanese institutional setting, food security is a topic split under the mandates of several ministries, thus arises the importance of establishing an effective coordination body to ensure that all relevant ministries and public institutions, in addition to civil society, the private sector, research centers, universities, development partners, and other stakeholders work in harmony. This becomes essential to implement the MoA's strategy, mobilize required resources, as well regularly update it to adapt to the rapid economic and financial crisis the country is facing.<sup>17</sup>

The Ministry of Public Health (MoPH) developed its own strategy in 2021, the 'National Nutrition Strategy and Action Plan (2021-2026),' which also acknowledges the dispersion of systems and structures governing nutrition over multiple entities and the lack of inter-ministerial coordination, stressing the importance of a coordination body, but this time, for nutrition.

It also identifies the problems in the Lebanese food system as follows: unregulated product nutritional contents and their false labelling, loose enforcement of the food safety law, lack of self-sufficiency, and increase in import volumes. Currently, most common products on the market are not nutritious and/or are imported. The main cause, according to the strategy, are gaps in local agriculture production and diversification, driven by poor farm and resource management, limited coordination between actors in the

18
Ministry of Public Health.
(2021). National Nutrition
Strategy and Action Plan
2020-2025.
<a href="https://moph.gov.lb/userfiles/Prevention/Nutrition/Lebanon%20National%20Nutrition%20Strategy\_20220322%20F.pdf">https://moph.gov.lb/userfiles/Prevention/Nutrition/Lebanon%20National%20Nutrition%20Strategy\_20220322%20F.pdf</a>

19
The cost of inputs, such as seeds, pesticides, and fuel has increased dramatically due to the currency collapse, making it harder for farmers to make a profit.

value chain, and lack of equipment and facilities to preserve product quality at the production and post-harvest levels.

Based on that, the MoPH seeks to strengthen nutrition governance accountability and information management, align health systems providing coverage of essential nutrition services, improve food supply, keep food economically available, and create a safe and supportive environment for good nutrition at all ages.<sup>18</sup>

# **Challenges Facing the Agricultural Sector**

Despite the factors listed above, the agricultural sector can contribute to the country's recovery from the financial crisis and the COVID-19 pandemic. Nevertheless, the development of the sector is constrained by challenges in nine main areas:

- Competitiveness: Most of Lebanese agriculture is characterized by high production costs driven by high input prices, 19 starting from fixed costs and including rent of agricultural land, as well as small-sized holdings, which are unable to take advantage of economies of scale. This economic crisis has had a significant impact on agricultural production, thus reducing the volume, due to the fact that farmers are facing shortages of fuel, fertilizers, and other inputs. This has caused a decline in export volume and competitiveness with similar products from other countries. In addition, Lebanese farmers are unable to compete with cheaper imported products.
- Employment: Agriculture makes extensive use of hired labor, which is used to perform seasonal manual operations, but also to oversee day-to-day running of farms, largely owned by absentee landlords who live and work in urban centers. Even many small farms tend to hire labor. Specialized work, such as operating agricultural machinery and pruning of trees, are usually performed by skilled Lebanese workers. The labor force is therefore mainly comprised of seasonal, low-skilled workers, who are often from abroad, mainly from Syria. This hinders farmers' capacity to adopt new technologies and good farming practices.
- Financial challenges: Lebanese farmers face a difficulty in accessing credit, as the banking sector used to be the only source for cash finance before the crisis. In agriculture, the credit system relied on agriculture input suppliers and wholesalers for in-kind finance (seeds, fertilizers, other) and was interrupted at the beginning of the financial crisis due to the depreciation of the Lebanese currency. Farmers started finding it

increasingly difficult to access credit to invest in their farms (mainly fuel and agricultural inputs), or purchase equipment, particularly given that costs were often in hard currency while farmers' income was in Lebanese pounds. This makes farmers highly dependent on foreign assistance to meet their needs, such as in-kind support by donors. The banking sector considers agriculture a high-risk business with no guaranteed production or market, which makes them reluctant to support farmers. The only source of loans was the Kafalat program, which was stopped during the crisis.

- Supply chain difficulties/Marketing challenges: The agricultural supply chain in Lebanon faces key constraints, such as the low bargaining power of farmers in market operations and weak cooperative work. It is affected by an imbalanced market power and risks of unfair trade practices (lack of trust between producers and intermediaries, lack of transparency in Lebanese wholesale markets, lack of integration and linkages inside the supply chain, i.e. agricultural production often experiences quality and marketing issue), and finally there is a mismatch between supply and demand—a big gap exists between producers and consumers, as the varieties produced are not always the ones desired by consumers. Lebanese consumers are accustomed to the best quality of produce, which also happens to be the product that is most suitable for export.<sup>20</sup>
- Lack of compliance with quality standards as well as the quantities required for export agreements. Exporting middlemen are aware of the quality requirements demanded by foreign markets to avoid shipments being returned. As such, exporting middlemen tend to offer higher prices at the farm gate to farmers than the regular wholesale market suppliers that target domestic consumption. However, many subsectors of Lebanese agricultural production, as well as part of the food industry, have been experiencing food safety and quality problems due to a lack of investment in these areas. Regarding the issue of quantity, Lebanon is not a big producer, therefore the inability to make large-quantity commitments is often another barrier to export promotion.
- **Poor agricultural infrastructure:** According to the 2010 agriculture census, about 47,000 hectares of arable land are abandoned, accounting for more than 20 percent of total arable land. Some of this land was gradually abandoned due to the increasing cost of maintaining existing terraces and a rapid rural exodus in mountainous areas (36% in Mount Lebanon). In other areas, many farmers growing rain-fed cereals have abandoned their
- Abdallah, H. 2021. Evaluation des déterminants de la compétitivité du secteur agricole libanais: étude de la filière pommes (Doctoral dissertation, Montpellier SupAgro).
  Dal, E., Díaz-González, A.M., Morales-Opazo, C. and Vigani, M. (2021). Lebanon's agricultural sector: challenges and opportunities. FAO Agricultural Development Economics Policy Brief 38. Rome, FAO. Retrieved from https://www.fao.org/docume nts/card/en/c/cb5074en

land due to low productivity and declining profitability, particularly in drier areas such as Baalbek/Hermel, where 29 percent of total arable land is abandoned. Finally, the prolonged Israeli occupation of parts of southern Lebanon has forced a large number of farmers to abandon their lands. Although many farmers have returned to the South following the Israeli withdrawal in 2000, significant areas remain abandoned to date, with about 25 percent of the land abandoned in the governorate of Nabatieh. Also, the lack of agricultural roads and hill lakes in rural areas negatively impacts the agricultural sector.

- Extension research and education are integrated into the agricultural development triangle of the Ministry of Agriculture and its affiliated institutions. However, agricultural research is not applied in the extension process, and the results obtained stop at the door of the research centers, despite support from different donors and institutions. Most of the advice for agriculture production and post-harvest practices is provided by agriculture input suppliers. The field extension officers lack logistics and motivation, in addition to an overload of work due to understaffing. Moreover, there is a lack of trust with producers and a lack of experience in convincing them.<sup>21</sup>
- Political aspect: The export potential is constrained by a lack of product quality, good agricultural practices, safety standards, and traceability and certification systems. The absence of standards and certifications preclude access to international markets and integration into global value chains. Lebanon used road routes via the Syrian Arab Republic to export agricultural products to Iraq and the Gulf Cooperation Council (GCC) countries. Following the beginning of the Syrian conflict in 2011, the limitation of transit exports through the borders and the lack of access to the Syrian market disturbed the main overland trade routes to the traditional export markets in the GCC and Iraq. Exporters had to look for alternative markets and trade routes using more expensive freight options. Due to limited shelf life, marine transportation is suitable only for exporting a few types of products, while more perishable produce would have to be transported by air, the high cost of which is prohibitive for many products.
- Climate change and use of natural resources. To confront the consequences of climate change, Lebanon needs to take action and engage fully at all levels of the community, today and into the future. Use of cheap quality

21 Abdallah, H. (2021). Evaluation des déterminants de la compétitivité du secteur agricole libanais: étude de la filière pommes (Doctoral dissertation, Montpellier SupAgro).

pesticides and fertilizers, inadequate environmental regulations, and the lack of access to clean treated water in many areas must be addressed by the relevant authorities. Whether it's through campaigns informing the public of climate change and its impact or establishing and enhancing existing early warning systems that alert residents and responders to the threats posed by extreme weather, information and knowledge must be developed and shared with all segments of society. Increasing resilience and adaptive capacity is crucial.

# Opportunities Offered by the Crisis

The economic crisis has had a negative impact on many sectors. However, there are also opportunities that can be leveraged to promote and strengthen the agricultural sector. The shortage of hard currency, which has made it difficult to import food, has created an opportunity to support local food production to meet domestic demand. To materialize, such opportunities have to be accompanied by initiatives to support small-scale farmers, improve access to finance and inputs, and invest in infrastructure such as irrigation systems and storage facilities.

# Export Potential: Leveraging agricultural products with comparative advantage

The current crisis offers opportunities related to the comparative advantage of certain crops and agro-food products, especially as it pertains to their pricing and competitiveness on the global market. Agriculture production has seen an increase in trading fruits, vegetables, and food products. Therefore, there could be a potential for investors to produce agricultural and agro-food products that present a comparative advantage, such as new industries, specialized farms, wine, and other niche market products. A successful case is the booming of wine industries in different areas in Lebanon and the development of grape yards, even in the most expensive real estate areas where tourism or commercial projects present a high potential.

### Leveraging Innovation and Technology

Innovation and technology over the past few years have introduced new ways of farming that are replacing conventional inputs such as fertilizer and pesticides with alternative solutions such as organic farming and precision agriculture. The crises may offer Lebanese farmers the needed incentives to explore these techniques and others, such as using drones and sensors, to reduce their reliance on imported inputs that are purchased in hard currency, improving efficiency and productivity in the agricultural sector.

Collaboration with technology providers, start-ups, and innovators (especially in rural areas) can help introduce and integrate advanced technologies in agriculture. Farmers can benefit from automation, data analytics, and smart farming solutions that optimize resource usage and improve product quality.

# International and Local Organizations' Role in Agricultural Sector Growth

The present situation has lead international organizations to create projects and Cash-for-Work programs which are implemented and set up by non-governmental organizations across the country to provide short employment for vulnerable individuals from both genders, locals, and foreigners alike to generate income and cover their food gaps. Maybe this intervention could help also in upgrading the quality of Lebanese products and improve the resilience of poor people by producing niche products for exports (like organic produce, fair trade, and GAP - good agricultural practices).

Additionally, the government has initiated a strategy to build on the Impact platform.<sup>22</sup> Although this will require significant intra-governmental cooperation, the government would partner with civil society organizations and build on the efforts and accomplishments that they have already made in this regard. An example is the inter-agency coordination of different sectors, among them the Food Security and Agriculture effort lead by the MoA, and includes the Food and Agriculture Organization (FAO), World Food Program (WFP), and other NGOs working in the sector.

#### Recommendations

Despite the challenges faced by the agricultural sector, a number of locally funded initiatives, in addition to a multitude of external funds from international donors (Arab Fund, FAO, WFP, USAID, EU), have been helping to sustain the sector. A recent loan from World Bank will be approved and amounts to USD 200 million. These initiatives work on supporting communities in agriculture practices and processing and improving livelihoods. They provide farmers and small businesses with training and capacity building programs, equipment, and financial support. While certain initiatives have aimed to increase the production of essential foodstuffs to address demand, programs in place

IMPACT is the first e-governance platform in Lebanon that gives access to open data generated on different levels of the public sector, including ministries and municipalities. This platform can contribute to agricultural growth through data-driven decision making, policy development and planning based on analyzing agricultural production data, resource availability, climate patterns and market trends that support agriculture and ensure food security. Additionally, this platform can provide information on market demands, price fluctuations and certificate requirements facilitating better market integration and access to local and international markets.

to support farmers and consumers remain for the most part unsustainable economically.

To address the opportunities and challenges presented by the crisis, we offer the following recommendations, which are divided into four levels of intervention: production, marketing, organization, and policy making.

# At the production level

# A. Capacity building

It is important to build the capacities of small and medium-sized enterprises (SMEs) operating along the food value chain to reach a sustainable food system. This is based on designing tailored programs that respond to the needs and problems of all stakeholders along the chain and taking into consideration the skills of the workers and the limited financial assets to apply proposed changes. A special focus should be directed towards processing practices to open new marketing channels and limit the loss of unsold produce. Good agricultural and postharvest practices are also important to reduce qualitative and quantitative losses. Another focus should be on cooperation work, which would help producers reduce their costs and have access to common equipment and marketing channels. The organizations working in the sector should align their work to avoid replicability and engage in joint efforts with the public sector to sustain their actions. The main public entities in this regard are the agriculture extension centers run by the MoA, which are located in more than 28 locations all over Lebanon with assigned agricultural technicians and engineers.

#### B. Infrastructure

Given the government's financial limitations to invest in rehabilitating existing infrastructure or establishing new ones, such as irrigation canals and improving access to good quality water, donors should work on a small-scale level on making more accessible and affordable water sources and soil tests. Experts consulted for this study suggested that the role of municipalities is becoming more and more crucial in these territorial interventions, but they are also faced by financial limitations. As such, all interventions should take into consideration involving and strengthening the role of the different local stakeholders and opening the opportunity for them to be the actors of change with their communities. Strengthening the role and work of cooperatives is also important in this matter.

#### C. Finance

Access to finance is the most important and difficult aspect in the current economic crisis. However, the funds that are being invested in development lack programs that ensure small credit facilities. Producers are facing the challenges of purchasing good quality agriculture inputs and equipment and cover their energy expenses. Moreover, they do not have a market strategy for their business. Organizations and research centers, in addition to the Ministry of Agriculture, Ministry of Industry, and Ministry of Economy and Trade, should join forces to develop studies based on cost-profit analysis, local and international market opportunities to identify potential products with comparative advantage and ensure economies of scale without hindering the local food security. The studies should consider farming system analysis to be able to promote the appropriate sustainable farming systems in terms of species and varieties and in terms of crop sequence and seasonality. A program for access to credit would then be based on sound economic studies targeting potential products and with open access for the development agencies and actors in the field of development.

### At the marketing level

In the current context, producers are the ones receiving the smallest share while traders are controlling the market prices and consumers paying for the final produce with no asserted quality control. Producers lack the access to cold storage facilities to enable storing and ensure long shelf life of their produce, minimize loss, prolong the marketing period, and seek good marketing channels. They should also have access to sorting and packaging facilities to add value to their produce. Successful private sector initiatives are present, but affordable facilities belonging to agriculture cooperatives are not well established and functional; however, a successful case is the support of one international organization in the establishment of a farmers' cooperative equipped with one sorting and cold storage facility in the Bekaa which facilitated the export of cherries and other fruits to Europe. This shows the importance of cooperative work which is under the jurisdiction of the general directorate of cooperation at the Ministry of Agriculture (MoA) but is operating at a very low budget like all other public institutions. The concerned ministries that can strategically plan the market with the financial aid of donors are the MoA and the Ministry of Economy and Trade.

Opportunities cannot be leveraged without a strong collaboration among the government agencies and regulatory bodies, mainly the Ministry of Agriculture and the Ministry of Health, that should establish and enforce standards for production, processing, labelling of potential produce such as wine, olive oil, fruits and vegetables. This also calls for collaboration with agricultural Research and Development Institutions, and relevant university departments that can contribute to the improvement of production techniques and provide training and technical assistance to farmers.

### At the organizational level

Facilitate contract farming<sup>23</sup> as an important approach, as well as creating awareness campaigns to guide the relationship between the investor and the farmer, particularly when it comes to small farmers that contribute up to 70-80% of the agricultural production. The laws organizing this relationship are outdated and need to be updated. Also, we need to restructure the procedure and the role of the MOA and the municipalities regarding the wholesale markets to ensure fair prices, and farmer's rights, to identify and invest in alternative good quality inputs for local production, including seeds and plastic equipment.

One of the major challenges will be the establishment of a consultation and coordination platform for local actors, such as ministries, research institutions, organizations, and the private sector, as well as external actors like international organizations and institutions.

Finally to strengthen the relation between farmers and consumers in terms of quality and safety of products, some actions are needed to improve and install good packaging and labelling units, support the export of agricultural produce to ensure cash return to the producers and increase their profitability, and control prices for an equitable sector for producers, traders, and consumers.

### At the decision making and policy level

Update agricultural policy and laws due to the structural transformations started in 2019. The agricultural and agro-food sector are increasing in terms of production, investment, and share of GDP. We need to develop a well-defined import-export calendar to protect local production under the supervision of the MoA, taking into consideration bilateral and regional agreements.

Contract farming refers to an agreement between farmers and buyers, typically agro-food processors, in which the terms and conditions for the production and sale of agricultural products are predetermined. This arrangement aims to reduce market uncertainties, enhance productivity, and promote mutually beneficial relationships between farmers and buyers.

### References

Bahn, R. A., Nisr, R., & el Labban, S. (2018). Food Policy in Lebanon. Reference Module in Food Science. Elsevier. Retrieved from https://doi.org/10.1016/b978-0-08-100596-5.22365-2

Dal, E., Díaz-González, A.M., Morales-Opazo, C. and Vigani, M. (2021). Lebanon's agricultural sector: challenges and opportunities. FAO Agricultural Development Economics Policy Brief 38. Rome, FAO. Retrieved from https://www.fao.org/documents/card/en/c/cb5074en

# Food and Agriculture Organization (FAO). (2023). Lebanon at a Glance. Webpage. Retrieved from

https://www.fao.org/lebanon/fao-in-lebanon/lebanon-at-a-glance/fr/

# LCPS

#### About the Policy Brief

A Policy Brief is a short piece regularly published by LCPS that analyzes key political, economic, and social issues and provides policy recommendations to a wide audience of decision makers and the public at large.

### **About LCPS**

Founded in 1989, the Lebanese Center for Policy Studies is an independently managed, non-partisan, non-profit, non-governmental think tank whose mission is to produce and advocate for policies that improve governance in Lebanon and the Arab region. LCPS's current research agenda focuses on: enhancing governance, informing the process of economic growth and sustainable development, promoting inclusive and effective social policies, and informing the development of policies for a sustainable environment. Four themes cut across the above areas of focus, including gender, youth, conflict resolution, and technology.

#### **Contact Information** Lebanese Center for **Policy Studies**

Sadat Tower, Tenth floor P.O.B 55-215, Leon Street, Ras Beirut, Lebanon T: + 961 1 799301 F: + 961 1 799302 info@lcps-lebanon.org www.lcps-lebanon.org