

# ■ Lebanon

**Lebanon's Agriculture:  
Dynamics of Contraction  
in the Absence of Public  
Vision and Policies**

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## 1. Background

The present paper aims at providing a critical analysis of the agricultural and agro-food sectors in Lebanon to assess public and private actors' degree of adhesion to the guiding principles of the right to food, while taking into account the country's political and economic context. The right to food principles are concerned with a rights-based approach to food security and food sovereignty, expanded below.

Consequently, the paper begins with a historical brief on the political economy of Lebanon, followed by a discussion on the agriculture and agro-food sectors, examining modes of production, terms of trade, and overarching institutional and policy settings. Finally, the paper will contrast the research findings with the right to food guiding principles and provide action and policy recommendations for the Lebanese government, the international donors community, and local civil society organizations.

### Right to Food: Guiding Principles

These guiding principles, as defined by the 1996 World Food Summit and the 2007 Nyéléni civil society forum, can be synthesized as follows:

- **The individual right to food security, as defined by the 1996 world food summit: food security is achieved «when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.»**
- **The right to food, which is healthy and culturally appropriate.**
- **The right of food providers to live and work in dignity.**
- **The right of countries to protect their own agriculture through subsidies and tariffs.**
- **The right of local food providers to exert control over territory, land, grazing, water, seeds, livestock, and fisheries (privatization of such resources through intellectual property rights regimes, or commercial contracts is explicitly rejected).**
- **The right to access appropriate agricultural knowledge and skills and the right to reject any technology that undermines food providers' ability to develop and pass on knowledge and skills.**
- **The right of current and future generations to have a healthy and clean environment and sustain access to natural resources. Local food providers and community members also have the right to refuse and avoid the use of energy-intensive industrial methods that increase gas emissions.**

## 2. A Historical Brief on Lebanon's Political Economy

Since its modern creation in 1920,<sup>1</sup> Lebanon has been plagued with food security issues. From the onset, the newly formed state neglected agriculture and rural development. This was based on a political and economic choice that led to chronic unequal development between the country's core (Beirut and Mount Lebanon) and its periphery (North and South Lebanon, and the Beqaa Valley). These patterns of uneven geographical development, together with the post-civil war creation of political spaces, have shaped the structure of the agriculture and natural resources sectors.

Understanding the root cause of imbalanced regional development requires delving into the prevalent agricultural mode of production in the mid-19th century. During that time, export-oriented silk production transformed agrarian structures and enabled significant social and economic changes in Beirut and Mount Lebanon. Moreover, agrarian structures remained mainly unchanged in the newly annexed territories, whereby subsistence non-monetized agriculture with powerful landlords prevailed. The French mandate (-1920 1943) disrupted existing agrarian structures by reinforcing feudal control over agricultural and grazing land,<sup>2</sup> as it needed the political support from local landlords. According to Owen (1976), by failing to spark a rural development dynamic, the French mandate maintained the political and power structures in Beqaa, the North, and South Lebanon, confirming the hegemony of a small class of merchants, bankers, and landlords, and in turn strengthening a "pattern of economic activity in which agriculture and industry had become more and more subordinate to banking and trade" (Owen 1976:24).

Lebanon's independence (1943) did not change much. Indeed, in contrast to the international effort during the 1950's regarding the improvement of agricultural productivity to ensure provision of food, Lebanon's de facto food policies relied on trade to supply population needs. It is only in the early 1960's that agricultural and rural development policies were tackled for the first time by President Fouad Chehab's administration, whereby a series of reforms were directed towards building state institutions and strengthening the state apparatus. The reforms were aimed at improving wealth distribution and tackling uneven geographic development. Although they did not change the system on the long term, the Chehabist reforms introduced elements of agricultural and rural development policies, including the creation of institutions that still prevail today. Unfortunately these institutions have been exploited by the ruling political elite and are too often used as tools for nepotism and control over allegiances.

The Lebanese civil war further stratified the country into fragmented political spaces that extended beyond the mandate's policy and the core-periphery dichotomy. Indeed, the civil war created a mosaic of spaces, with which the state has to constantly bargain and share its power, influence, and action until today. Lebanon's central government has had to accept and work within the parameters of the imposed coexistence and superposition of several systems of power, decision-making, and legitimacy (Debié 2005). Basic services, including health, education, water networks, and agricultural extension services, as well as access to international donors development funds, are also affected by this fragmented power-sharing system. This situation has led to the creation of agro-political spaces, whereby the different political parties or influential landlords determine their agricultural and rural development policies.

Consequently, today, Lebanon lacks an official and coherent agricultural policy, relying on splintered and irregular projects that are mostly funded by external and international donors (Hamade et al, 2015a). This 'political void' has allowed politically affiliated stakeholders to play significant roles in governing farmers-state role as well as agricultural supply chain dynamics (Hamade 2015).

1 In 1920, the French Mandate over Syria declared the creation Grand Liban, by annexing the city of Beirut, the Beqaa Valley, North Lebanon (i.e. vast area of the Ottoman district of Tripoli), and South Lebanon (i.e. vast area of the Ottoman district of Sidon) to the previously autonomous Ottoman district of Mount Lebanon.

2 See Riachi (2013) for a description on how the French Mandate disturbed traditional and sustainable agreement on management of commonly owned land Machaa' with the introduction of property and cadaster.

### 3. Lebanon's agriculture

#### 3.1 A stagnant sector

Agriculture in Lebanon represented %2.9 of GDP in 2016.<sup>3</sup> When expressed in constant prices, the agriculture share of GDP shows a clear decline from %5.7 in 2004 to %3.7 in 2016.<sup>4</sup> This decline is not the result of an economic structural transition, as explained by improvement in the agricultural sector, but rather due to stagnant growth in agricultural value added since 2004. Figure 1 below shows that the value of agricultural crops and forestry output has remained almost constant with a similar value between 2004 and 2016 (i.e. approximately 2 billion USD), while the yearly value of livestock and fishery has grown by only 300 million USD over the course of 12 years (from 1.26 billion USD in 2004 to 1.56 billion USD in 2016).<sup>5</sup>

There are various challenges within Lebanon's agricultural sector, such as land fragmentation, lack of efficient cooperatives, weak extension services,

weak post-harvest infrastructure and practices, trader's hegemony over agricultural value chains, aging farmers' population,<sup>6</sup> slow modernization and adaption of new technology, and the lack of a proper agricultural policy that can support the sector's development and growth.

However, agricultural stagnation is a result of three underlying and intersecting and contradictory factors:

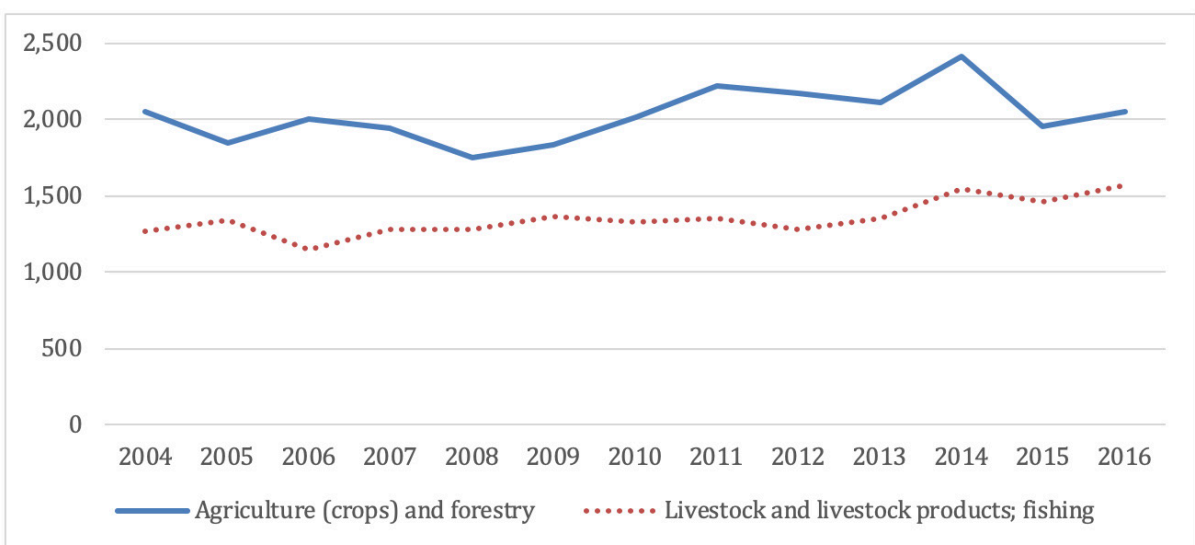
Firstly, the decline in agricultural productivity due to the factors noted above.

Secondly, the positive (albeit limited) impact of development projects within the agricultural sector supported by international donors.

Thirdly, the positive effect created by the ability of Lebanese farmers to sustain investments and cope with a changing context.

However, as the third factor reflects and despite these challenges, agriculture has remained a significant sector for wealth generation in rural areas and has allowed local communities to cope with the impact of crises and shocks, including

**Figure 1:** Agriculture and livestock value added at constant 2010 prices (in million USD)



Source: CAS – Lebanon National Accounts 2018) 2016 report)

3 Central Administration for Statistics: Lebanon National Accounts. GDP share calculated at 2016 prices.

4 Idem, constant prices with 2010 used as a reference year

5 Idem, constant prices with 2010 used as a reference year.

6 Average farmer age was 52.2 years in 2010 and is expected to have risen higher in 2018. Source: FAO and MOA agricultural census of 2010.

the impact of the Syrian crisis. These endogenous coping mechanisms were undertaken by farmers independently from donor-led projects and the Lebanon Crisis Response Plan (Hamade 2018).

#### 3.2 Farmers and Agricultural Labor

Agriculture, as a primary source of income, employed %6.5 of the Lebanese labor force in 2004,<sup>7</sup> a figure that has been declining slightly since then. Nonetheless, according to the 2010 FAO and MOA agricultural census, there are 170,000 agricultural holdings in Lebanon, i.e. approximately %15 of Lebanese households benefit from cash or in-kind income from agriculture.

Farming activities remain mostly unregulated and agricultural work is informal and does not fall under the scope of the Lebanese Labor law. In the absence of a universal health coverage system, farmers and agricultural workers do not benefit from formal public health coverage nor from retirement and pensions plans. As per the UNDP and CAS (2008) poverty report, %67 of farmers' households (i.e. households for which agriculture is the primary source of income) fall below the poverty line. Farmers have the possibility to create mutual funds;<sup>8</sup> however, they are rarely used and have not been valorized by the state as a potential form of self-organization that would allow farmers to access both health coverage and retirement.

Only %12.0 of agricultural holdings require non-family full time labor and the demand for permanent waged agricultural labor is estimated to be 50,000 workers. However, three quarters of agricultural holdings require seasonal laborers for a total amount of 10 million working days or the equivalent of 91,000 part-time jobs (110 days per years). The vast majority of waged agricultural workers are Syrian, with at least half of them being women. Permanent Syrian agricultural workers are employed informally with limited rights and usually live on-farm, while seasonal workers are managed by local Syrian middlemen (called shawish, or

7 No updated data available. Source: MOSA, UNDP and CAS households living conditions survey 2004.

8 Mutual funds are overseen by the Ministry of Agriculture through the General Directorate for cooperatives. They benefit from yearly subsidies. However, mechanisms for subsidy attribution remain unclear and highly influenced by political allegiances.

“warden”) who mediate the relation between Lebanese farmers/landlords and Syrian workers. The availability of low waged Syrian workers has been a major factor in the competitiveness of Lebanese agriculture. It has disincentivized Lebanese farmers from investing in farm modernization and mechanization. Rather, they rely on the availability of low-wage workers, especially for operations such as seedings, harvesting, pesticides spraying, and so on. Moreover, the forthcoming shortage of Syrian labor that may be associated with post-war Syrian reconstruction will also be a major challenge for Lebanese agriculture.<sup>9</sup>

#### 3.3 The Production Base

Lebanon's agricultural land spreads over a total of 0.24 million hectares. As shown in table 1 below, around %55 of the land is covered with permanent crops. Out of this number, around %42 is covered with low input, mostly non-irrigated olive trees (%23.5 of total arable land). Overall, only around %49 of agricultural land is irrigated, with approximately %46 of farmers not irrigating their land. Additionally, cereals cover around %20 of all agricultural land and vegetables and legumes cover a similar proportion. Consequently, industrial crops only cover around %5 of the land. It is also important to note that intensive greenhouse exploitation covers approximately %1.7 of agricultural land, as per the FAO and MOA 2010 survey, reaching up to %3.3 in Akkar district. In fact, greenhouse investments, particularly in the Akkar region, are witnessing significant growth.

9 Syrian agricultural workers were present in Lebanon prior to the Syrian crisis of 2011. However, the expected high labor demand of Syria reconstruction is likely to create a migratory flux of Syrian labor back to Syria that exceed the crisis refugee influx into Lebanon.



Table 1: Agricultural land use per region

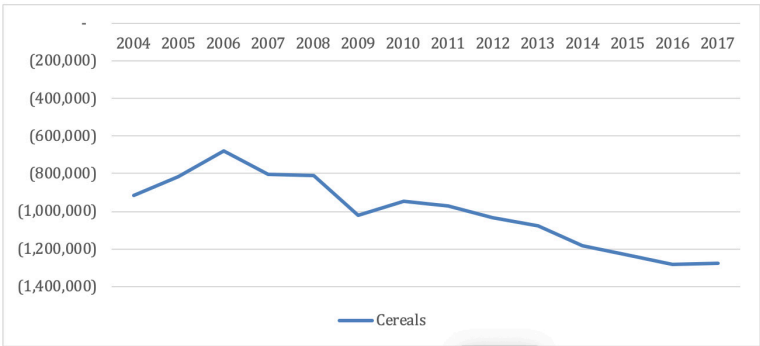
	Mount Lebanon	North Lebanon	Akkar	Nabatieh	South Lebanon	Beqaa	Baalbek El-Hermel	Lebanon
<b>Permanent crops</b>	<b>%86.7</b>	<b>%90.9</b>	<b>%59.6</b>	<b>%58.9</b>	<b>%78.9</b>	<b>%28.8</b>	<b>%43.4</b>	<b>%55.1</b>
Permanent crops (excluding olives)	%59.4	%38.4	%24.2	%13.9	%48.2	%17.1	%35.6	%31.6
Olives	%27.3	%52.4	%35.4	%45.0	%30.7	%3.3	%7.8	%23.5
<b>Seasonal crops</b>	<b>%10.5</b>	<b>%7.1</b>	<b>%37.2</b>	<b>%40.0</b>	<b>%18.7</b>	<b>%71.0</b>	<b>%56.2</b>	<b>%43.2</b>
Industrial crops and forage	%0.2	%0.9	%3.6	%12.0	%5.1	%2.1	%11.5	%5.0
Cereals	%0.4	%3.6	%15.9	%16.5	%7.4	%30.8	%24.7	%19.7
Vegetables and legumes (field)	%10.0	%2.6	%17.7	%11.4	%6.1	%32.2	%20.0	%18.5
<b>Greenhouses</b>	<b>%2.8</b>	<b>%2.0</b>	<b>%3.3</b>	<b>%1.2</b>	<b>%2.5</b>	<b>%0.2</b>	<b>%0.4</b>	<b>%1.7</b>
Total	%100	%100	%100	%100	%100	%100	%100	%100
<b>% of total agricultural land</b>	<b>%17.1</b>	<b>%10.0</b>	<b>%17.4</b>	<b>%10.4</b>	<b>%10.1</b>	<b>%18.5</b>	<b>%27.3</b>	<b>%100</b>
<b>Average farm size</b>	<b>0.5ha</b>	<b>0.9ha</b>	<b>1.3 ha</b>	<b>1.0 ha</b>	<b>1.13 ha</b>	<b>3.9 ha</b>	<b>2.1 ha</b>	<b>1.5 ha</b>

Source: Ministry of Agriculture and FAO agricultural census (2010)

Overall, Lebanon is self-sufficient in the production of fruits, and quasi-self-sufficient with regards to the production of vegetables. Self-sufficiency indexes reach up to %200 for bananas, citrus, and apples, which are export dependent crops (Riachi, 2013). However, Lebanon has a significant deficit in the production of cereals, livestock, and dairy products. As shown in figure 3 below, Lebanon has a deficit in cereal production at an average of 800 thousand tons per year prior to the Syrian Crisis, and up to 1,280 tons during the Syrian crisis. Half of the quantity of imported cereals is soft wheat. Lebanon implements a wheat subsidies instrument, through the Office of Wheat and Sugar Beet of the Ministry of Economy and Trade (MET). In 2005 a decision was made to gradually phase out wheat support and in 2008, wheat subsidies were stopped. However, they were once again implemented for the 2010 and 2011 season. As a matter of fact, the implementation of wheat subsidies is left to a yearly decision undertaken by the Council of Ministers, which usually implements these measures when international prices of wheat are low. However, anticipation of wheat subsidies is a factor that highly influences farmers' choices of crop production.

MET also implements a bread price control, with prices of bread fixed at 1 USD per 900 grams of standard Lebanese bread. Through this policy, MET supports bakeries and mills by providing in-kind wheat flour deliveries to reduce production cost and ensure mills and bakeries still have a profit margin on the standard 900 gr bread package.

Figure 2: Lebanon cereals balance of trade (quantities in tons)



Source: International Trade Center – trademap.org

In addition to wheat subsidies, Lebanon subsidizes tobacco production through the Régie Libanaise des Tabacs et Tombacs, a state monopoly that falls under the auspices of the Ministry of Finance. Sporadic support to forage and milk production was provided by the Ministry of Agriculture through subsidies and price control instruments; however, this policy was quickly abandoned because of both its inefficiency - in regards to support for forage production –, and the pressure and lobbying of large dairy industrials regarding the milk price control policy (agricultural policy is further discussed in section 5).

### 3.4 An export-oriented agriculture

An agricultural production base indicating self-sufficiency in fruits and a deficit in cereals is characteristic of developing countries and export-oriented agricultural development.

Increasing demand for fruits in the Gulf in the early 1950s influenced the development of an export-oriented form of agriculture in Lebanon. In several areas, this resulted in a fast transition from a traditional form of production to export oriented production. This particularly affected poor regions such as Akkar and Northern Bekaa, regions in which agricultural systems were focused on the production of pulses and cereals in the summer, legumes (fava beans, peas) in winter, and sustainable traditional forms of animal grazing. This mode of production was soon to be changed with the introduction of exported oriented permanent crops such as apples (in upper Akkar as well as in Mount Lebanon), apricots and almonds (Baalbek El-Hermel, and Akkar) and cherries (Aarsal area). This relatively fast transition in the agricultural mode of production put an end to the previously predominant sharecropping system, leaving many farmless farmers with no other option but to seek job opportunities in the cities.

Similarly, the presence of Palestinian refugees in coastal areas in South Lebanon and Akkar (Nahr el-Bared area) allowed local landlords to benefit from both the presence of low waged and skilled agricultural labor, which enabled large export-oriented investments in citrus crops. As such, the export oriented agricultural development came at the cost of fast and brutal agrarian transition, but also was beneficial for poor workers.

Earlier on, the newly independent Lebanese state

had subordinated its agriculture to trade. As such, mercantilism benefited from the comparative advantage of fruit production in Lebanon. Similarly, large agro-industrial investments benefited from the high returns of high entry costs for competitors, in a system in which entrepreneurs should have important social networks and political connections to reduce costs and be protected from competition (Debié and Petier 2003).

Furthermore, the high dependency of Lebanon's agriculture on the importation of cereals, industrial crops and livestock, which, in addition to being essential foods requirements, are commodities used as intermediate inputs for agro-food activities (%96 of cereals, %58 of industrial crops, and %96 of livestock)<sup>10</sup> resulted in a higher entry cost for smallholders willing to engage in agro-industrial activities. For example, large Lebanese dairy sector investments rely on imported livestock, whose price constitutes a significant entry cost for small holders willing to engage in dairy production (Hamade, 2011).

In the absence of a well-defined agricultural strategy and high industrial and mercantile capital accumulation (both upstream [input provision] and downstream [export, excessive local trade margins, post-harvest, and agro-industrial infrastructure]), the agricultural value chain has resulted in a heterogeneity that is divided between large integrated agro-industrial and export oriented farms, on one hand, and small scale, under-capitalized agricultural exploitations, on the other.

### 3.5 The heterogeneity of the agricultural sector

The heterogeneity of production caused by high and fast capital accumulation of farmer elites closely linked to the ruling class is reflected in the distribution of land tenure.

On one hand, %10 of landlords own %60.6 of the total agricultural land, with %1 of landlords owning around %26.5. These figures are even more striking in regions with intensive agricultural activities, such as Zahle and West Bekaa, where %69.1 of land is owned by the top landlord decile.<sup>11</sup> These large holdings owned by absentee landlords are usually

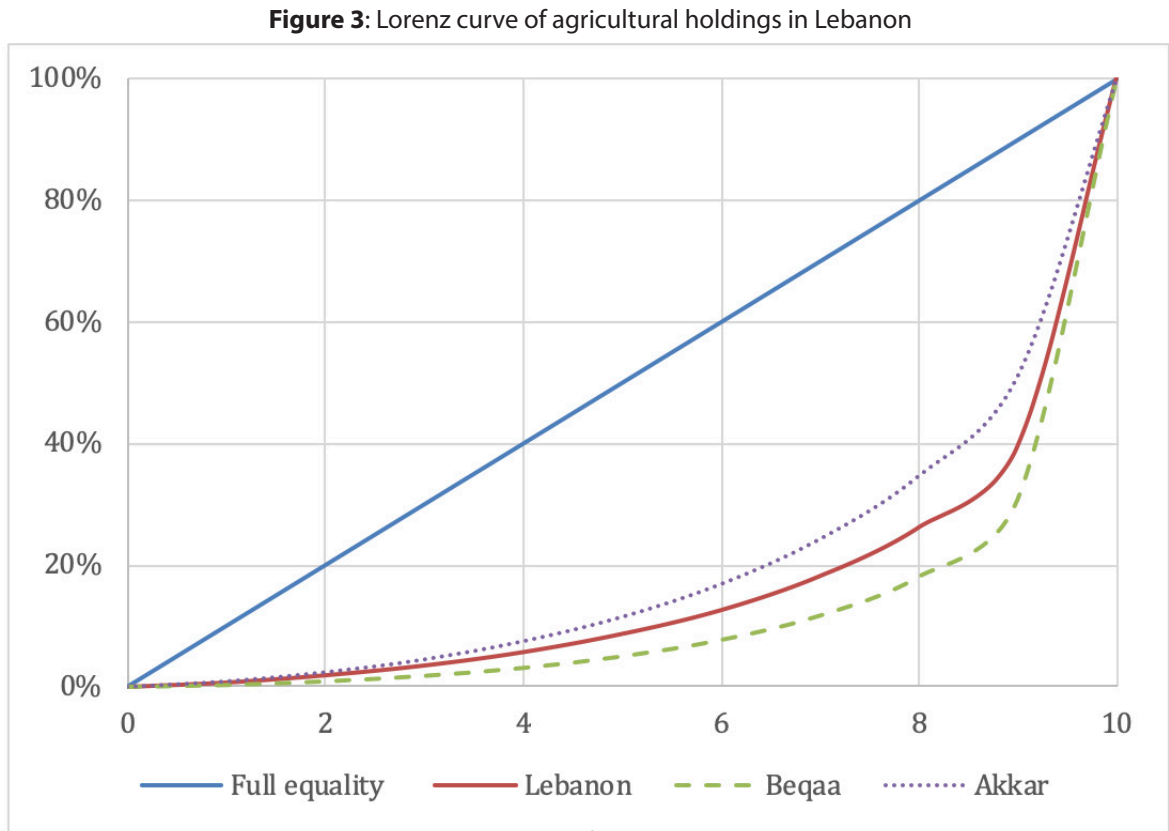
10 Hamade (2011)

11 Source: Hamade (2015); data analysis based on FAO and MOA agricultural census raw data.

covered by sub-tropical crops (citrus, avocado), intended for export, and intensive field production, such as potatoes and bulbs. Furthermore, frequently subsidized wheat production also covers these lands. The largest private agricultural holdings in Lebanon can readily be traced to prominent politicians across sectarian divides and political affiliations.

On the other hand, the major part of agricultural holdings remains undercapitalized and highly fragmented – %50 of holdings cover less than %10 of agricultural land, with the lowest decile of farmers owning less than %1 of the land.<sup>12</sup> Many of these holdings are still very traditional exploitations, with no access to credit and/or limited access to informal forms of money lending. Production in these holdings tend to be heavily impacted by price fluctuations, the high margins taken by middlemen and traders, high costs of production, low capitalization, and the lack of functioning cooperative structures.

Figure 3 shows that the Lorenz curve applies to land distribution in Lebanon, as well as selected Lebanese regions. Indeed, inequality is striking, with the Gini index for Lebanon's land distribution estimated at 0.773. In intensive agricultural areas such as the Bekaa Governorate (Central and West Bekaa), it reaches up to 0.821. However, in Akkar, there is a slightly more equal distribution with the Gini index value, estimated at 0.746. The distribution of agricultural land reflects the modes of production in the different areas. Agriculture in West and Central Bekaa tend to be more intensive and mechanized, with the largest estates and high capital investment. In these regions, agriculture is more polarized between small-scale farmers and large investments, while in Akkar, as well as Baalbek-Hermel, agriculture is still a livelihood option for medium-sized farmers. Further insight on regional modes of production are given by table 2 and 3, which present land tenure for selected agricultural regions and distribution of agricultural holding according to size.



Source: Author calculation based on Ministry of Agriculture and FAO agricultural census (2010)

**Table 2:** Land tenure by region

		West Beqaa	Central Beqaa	Baalbek AL-Hermel	Akkar
Farmed by land owner	Share of land	%33.0	%57.5	%64.8	%73.1
	Share of farms	%67.2	%79.1	%74	%83.7
Leased out	Share of land	%50.3	%36.6	%14.7	%21.5
	Share of farms	%11.1	%16.5	%6.4	%8.5
Share cropping	Share of land	%11.0	%5.4	%3.3	%%0.9
	Share of farms	%3.5	%3.1	%1.5	%0.6
Other	Share of land	%5.7	%0.4	%17.1	%4.5
	Share of farms	%18.2	%1.4	%18.1	%7.3

Source: Author elaboration from Ministry of Agriculture and FAO (2010) census raw data.

**Table 5:** Distribution of plots size by region

		0.1ha ≤ area ≤ 0.2ha	0.2ha < Area ≤ 0.5ha	0.5ha < Area ≤ 1ha	1ha < Area ≤ 2ha	2ha < Area ≤ 5ha	Area > 5ha	Total
West Beqaa	Share of land	%2.7	%5.1	%6.7	%7.8	%13.8	%63.9	%100
	Share of plots	%34.8	%13.5	%15.4	%9.1	%7.4	%7.8	%100
Central Beqaa	Share of land	%1.1	%4.7	%9.1	%11.0	%21.8	%52.3	%100
	Share of plots	%15.2	%25.3	%23.5	%15.0	%13.6	%7.5	%100
Baalbek Hermel	Share of land	%4.0	%11.5	%16.4	%18.6	%26.7	%22.9	%100
	Share of plots	%28.0	%30.3	%20.5	%12.1	%6.8	%2.4	%100
Akkar	Share of land	%9.1	%18.3	%21.7	%19.3	%17.2	%14.5	%100
	Share of plots	%40.8	%30.4	%16.8	%7.9	%3.4	%0.8	%100

Source: Author elaboration from Ministry of Agriculture and FAO (2010) census raw data

In Central Beqaa – the less egalitarian region in terms of agricultural land control - %63.9 of agricultural land is in plots larger than 5 hectares, and only %33.0 of land and %67.2 of farms are farmed directly by the owners. These farmers are mostly small-scale producers with limited land ownership. Leased-out farms represent only %11.1 of total farms, but they cover %50.3 of the land. This reflects both the existence of absentee landlords owning a large amount of land and the capacity of agricultural entrepreneurs to rent large areas of land for field production, such as cereals and potatoes. In addition, the significance of share cropping agreements (on %11.0 of total land) further reflects the dominance of absentee landlords in the country. In Akkar – the more egalitarian region in terms of agricultural land control –, results show that only %14.5 of agricultural land is in plots larger than 5 ha, and %73.1 of land and %83.7 of farms are farmed directly by the owner. Leased land represents only

%21.5 of total land area, while share cropping agreements are negligible. A similar analysis can be made for Baalbek-Hermel, where %22.9 of agricultural land is divided into plots larger than 5 ha, and %64.8 is farmed directly. Irrigated areas differ between the four regions, reaching as high as %86.2 of agricultural land in central Bekaa and as low as %44.3 in Akkar (%74.9 in West Beqaa, and %55.0 in Baalbek-Hermel).

Irrigation methods and sources also reflect the different regional modes of production. For example, gravity irrigation methods are still used in %81.3 of irrigated farms in Akkar, but only in %20.9 of farms in West Bekaa. In terms of water sources, around %60 of irrigated land uses water from artesian wells in Bekaa, while farmers in Akkar still rely mostly on water streams for %58.1 of the irrigated surface.

## 4. Agricultural Terms of Trade Dynamics

### 4.1 Trade agreements

Several trade agreements govern Lebanon's agriculture and agro-food trade. However, most of these agreements have very limited impact on agricultural terms of trade for an open trade economy accustomed to bilateral agreements for seasonal trade (particularly with Jordan and Egypt). Having said that, the main agreements that directly impact the agricultural land and agro-food sectors are:

- **The Euromed agreement:**<sup>13</sup> In June 2002, Lebanon signed an Association Agreement with the European Union, which came into effect in April 2006, permitting free access to the EU market for Lebanon's industrial and agricultural products. This agreement grants Lebanon duty-free access to the EU market for manufactured goods and preferential treatment for agricultural, processed agricultural, and fishery products. The agreement is expected to abolish custom duties on imported products into Lebanon, 12 years after the date of entry into force. Moreover, Lebanese products would have access to preferential tariffs and quotas. However, the EU has implemented extensive non-tariff barrier to trade, especially in terms of phyto-sanitary requirements. Lebanese producers are facing challenges and only large-scale producers can implement the required standards, through measures such as the global gap certification.
- **The Greater Arab Free Trade Area (GAFTA) agreement** entered into force in 1998. Including Lebanon, its membership extends to 17 Arab countries. Within the Social and Economic Council of the Arab League, the

GAFTA agreement was announced as an executive program aimed at stimulating the Trade Facilitation and Development Agreement that had been in force since January 1998,<sup>1</sup>. Under this agreement tariff rates, fees, and taxes would be gradually reduced and all non-trade barriers would be removed.

### 4.2 A growing deficit

In the following section, Lebanon's trade balance and key crops trade dynamics will be examined to provide insight on Lebanon's food security. Additionally, this section captures the endogenous dynamics in Lebanon's agriculture by exploring the response of the agricultural and agro-food sector to a series of shocks.

As shown in Figure 4, the food trade deficit has been increasing consistently since 2004, reaching up to 2.4 billion USD in 2014. Although the trend is one of a growing deficit, four different phases can be distinguished.

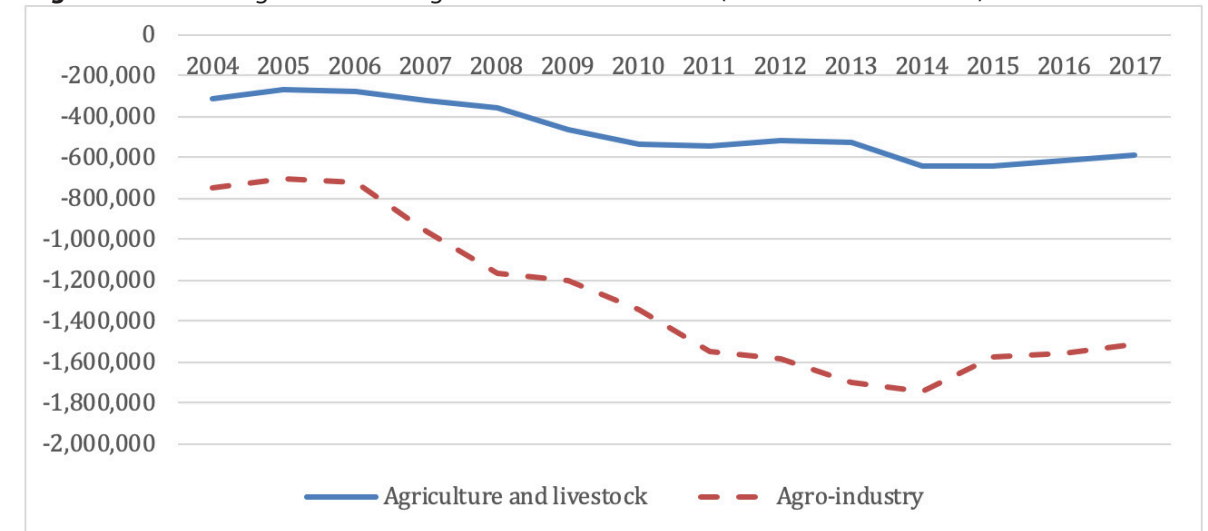
The first phase from 2004 to 2006 saw stagnation, in which trade deficit remained quasi-constant for both agriculture and agroindustry.

The second phase between 2007 and 2010 shows a significant increase in the deficit. Agricultural deficit almost doubled from 273 million USD in 2006 to 537 million in 2010; similarly, agro-industrial deficit increased by %86 from 721 million USD in 2006 to 1,345 million USD in 2010. This increase is mostly due to two factors:

- **The increase in international prices of agricultural and agro-food products during this period – especially during the 2008 food crisis.** Additionally, oil prices are high and the Euro exchange rate is higher in comparison to US dollars.<sup>14</sup>
- **The increase in food demand induced by the high growth rate witnessed by Lebanon during the same period.**<sup>15</sup> For example, imported quantities of has almost doubled during this period, reaching -2.47fold its 2004 value. Meanwhile, import demand for lower value products such as cereals

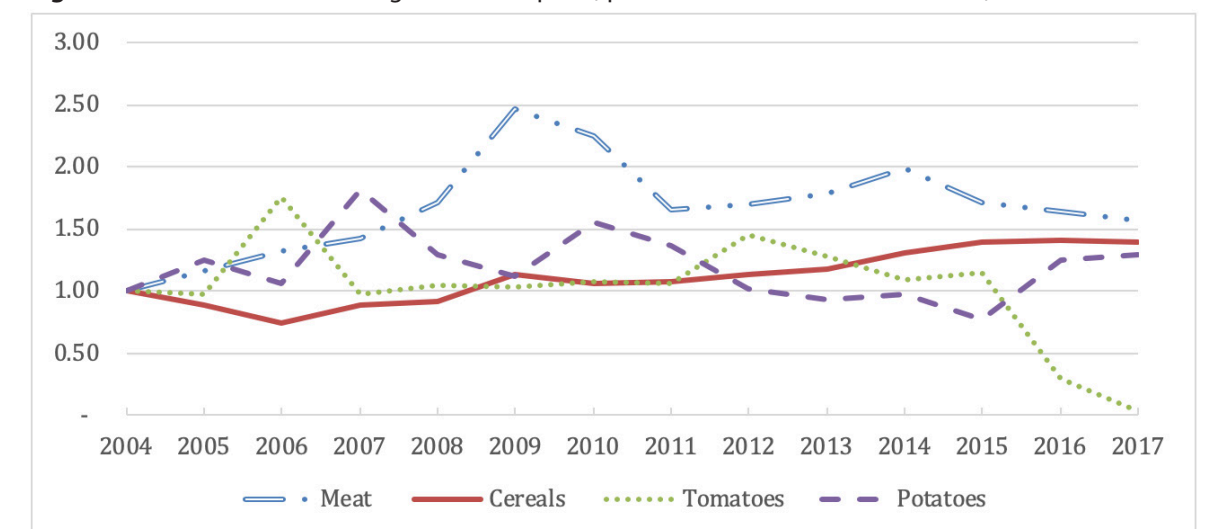
and tomatoes have remained relatively constant<sup>16</sup> (see figure 5, showing the evolution of selected agricultural import quantities indexed on 2004 value).

**Figure 4:** Lebanon agriculture and agro-food balance of trade (value in thousand USD)



Source: International Trade Center – trademap.org

**Figure 5:** Evolution of selected agricultural import (quantities – indexed on 2004 value)



Source: Author's calculation based on data extracted from International Trade Center – trademap.org

<sup>13</sup> Over the past years, bilateral agreements between Lebanon and the European Union have been steadily increasing, with total trade amounting to €7.1 billion in 2016, an annual average growth of 7.6% since 2006. Last year, Lebanon exported €0.4 billion to the EU out of which €0.1 billion were agricultural products (24.3%). Since 2012, the EU ranked among the main trading partners for Lebanon, absorbing 37.7% of Lebanese exports in 2015. Lebanon Customs Data.

<sup>14</sup> Average exchange rate of the Euro versus the USD was 1.47 in 2008. Source: [www.statista.com](http://www.statista.com)

<sup>15</sup> Lebanon growth rate: 2007: 9.35%, 2008: 10.47%, 2009: 10.05%, 2010: 8.04%. Source: The World Bank (<https://data.worldbank.org>)

<sup>16</sup> Figure 5 also shows the variation in the demand for imported potatoes. However, quantities of demanded potatoes are linked to the quantities produced in a particular year. Produced quantities of potatoes are influenced by weather conditions, as well as potential announced subsidized and/or expected high international prices of wheat. These factors influence farmers' decisions for a particular year, with the high price of wheat in international markets, many farmers may have opted for cereals instead of potatoes between 2007 and 2010.



The third phase, 2011 to 2014, shows an initial stagnation in the agricultural trade deficit, followed by a significant decrease in 2014 with the Syrian refugee influx into the country. During the same period, the agro-food deficit continued to rise – at a significantly lower rate – reaching up to 1.75 billion USD in 2014 (a %30 increase from the 2010 value). During this period, several opposing factors influenced trade in food products:

- **The decrease and stabilization of international prices of wheat as well as the slight decrease of the exchange rate of the Euro compared to the US dollars,<sup>17</sup> which rendered Lebanon's agricultural imports cheaper than before.**
- **The sharp reduction in Lebanon's economic growth,<sup>18</sup> due to the Syrian crisis, and thus the reduced demand for food products, especially those of higher value. Figure 5 shows a %26 reduction in the quantity of imported meat between 2010 and 2011.**
- **Both above mentioned factors were countered by the increased demand for food products due to Syrian refugees.**

The fourth period, starting in 2015 and up to 2018 (data available for 2017 only), shows a stabilization of the agricultural trade deficit at around 600 million USD. The period also witnessed a significant decline, from 1.75 billion USD in 2014 to 1.50 billion in 2017, i.e. a %14 decrease in 3 years.

This decrease is due to a mix of two factors:

- **The significant drop in the Euro to USD exchange rate. The Euro has lost %25 of its value between 2008 and 2015.<sup>19</sup>**
- **The reorientation of some of Lebanon's agricultural exports towards the local market, especially after the closure of the Nassib border crossing between Syria and Jordan in May 2015.<sup>20</sup> Figure 6 below shows the 2015 sharp drop in potatoes. Moreover, tomato exports also started decreasing since 2014, with its production geared**

<sup>17</sup> Average exchange rate of the Euro versus the USD was 1.28 in 2008. Source: [www.statista.com](http://www.statista.com)

<sup>18</sup> Lebanon growth rate: 2011: 0.98%, 2012: 2.80%, 2013: 2.64%, 2014: 2.00%. Source: The World Bank (<https://data.worldbank.org>)

<sup>19</sup> Average Euro to dollars exchange rate in 2016 was 1.11. Source: [www.statista.com](http://www.statista.com)

<sup>20</sup> The crossing is a necessary stop for all Lebanese road export to the Gulf.

mostly towards the domestic market.

- **The crisis induced growth and investment in specific agricultural sub-sectors and the agro-industry (see figure 7 below). For example, increased investment in vegetable production has led to a decrease in tomato import. As such, its imports have become marginal since 2017, i.e. %4 of the 2004 imported quantities.**

According to Hamade (2018), the increasing food demand was met, not only through growing food imports, but also through investments in agricultural and agro-industrial production. For example:

- **The border Lebanese town of Qaa in Northern Bekaa witnessed a significant increase of new investments in horticulture as well as in permanent crops. In fact, satellite images of the Qaa area from before and after the Syrian crisis show an approximate increase of %30 in irrigated land surface (see Hamade et al, 2015b).**
- **In Akkar, farmers have resorted to greenhouse production as a means of generating adequate profit margins, especially with the reduction in the cost of setting up greenhouses and the availability of formal and informal credit, including credit provided by input suppliers and/or traders. Key informants have reported that around 300 ha of citrus (an export-oriented crop) have been recently removed in favor of greenhouse production.**
- **Nationwide, the agro-industrial sectors, including agro-industrial MSMEs, witnessed a significant growth. As shown in figure 7, Lebanon's agro-industry<sup>21</sup> saw significant**

<sup>21</sup> Lebanon's Food industry represent 3.3% of its GDP, and 35.4% of total industrial output in 2016 (source: CAS – National account 2016, 1028 report), and employs 5.0% of the Lebanese labor force (source: UNDP, MOSA and CAS 2004 households living conditions survey).

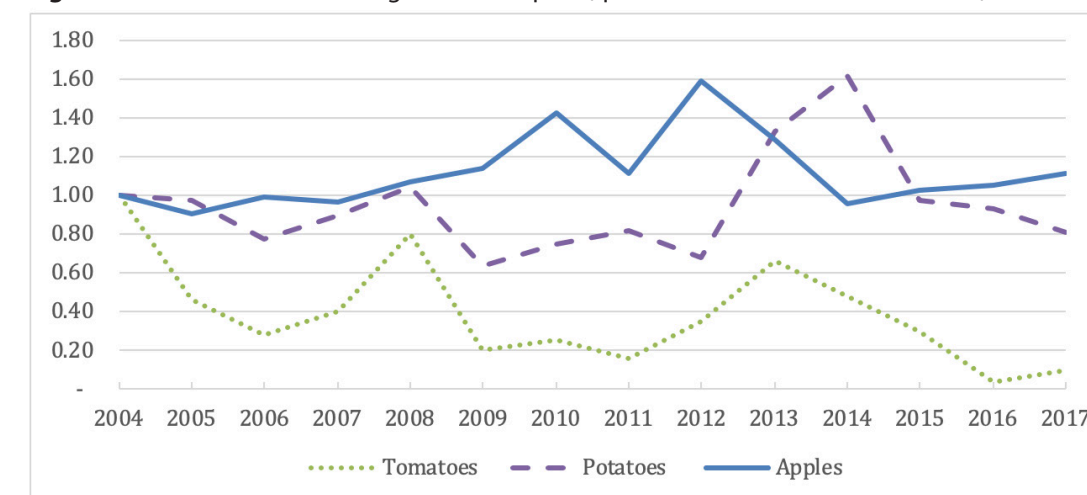
Agro-industry, like agriculture, is characterized by a heterogenic structure with large competitive investments on one hand, and family and/or cooperative based small production units on the other. Based on a survey conducted in 2007 by the Association of Lebanese Industries (ALI) and UNIDO, there are 736 registered food processing enterprises in Lebanon that employ five or more employees. This represents 18% of all industrial companies retaining

growth since 2004, a trend that was sustained even after the Syrian crisis. This is particularly reflected in the manufacturing of food products that have grown from 1.13 billion USD in 2011 to 1.27 billion USD in 2016, i.e. a %12.4 growth in real value of output.

- **Furthermore, Lebanon's rural areas have been resilient to the Syrian crisis, owing to the agricultural and agro-industrial sectors. Agricultural and agro industries have demonstrated their ability to act as**

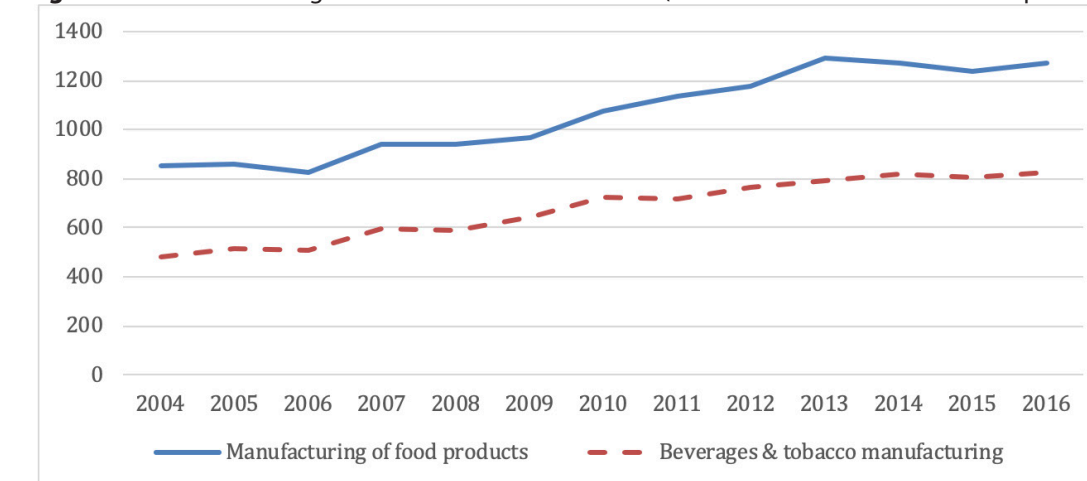
**factors of economic and social stability and have shown adaptive capacities that enable their response to short term shocks. This highlights the fact that despite the lack of political support and strategies, improvement in Lebanon's food security and food sovereignty are possible, starting from local dynamics and resources.**

**Figure 6:** Evolution of selected agricultural export (quantities – indexed on 2004 value)



Source: author calculation based on data extracted from International Trade Center – [trademap.org](http://trademap.org)

**Figure 7:** Growth of the agro-industrial sector 2016-2014 (in million USD at constant 2010 prices)



Source: CAS – Lebanon National Account 2018) 2016 report)

20,607 employees, or 25% of the total industrial workforce.

## 5. Lebanon's Agricultural Policies

Lebanese agricultural policy, at best, takes the form of sporadic cooperation projects with external donors and oscillates between the agenda of international organizations on one side, and the agenda of Lebanese political actors and their clientelist networks on the other. The present section presents the main characteristics of Lebanese Agriculture policy and institutional framework.

### 5.1. An Aging Institutional Set-up

After the French Mandate failed to implement its rural development plan, which aimed at decreasing inequalities between Beirut and Mount Lebanon, on one hand, and the newly annexed regions, on the other; a new attempt to develop agricultural policies was undertaken by the Chehabist government in the late 1950's and early 1960's. As a matter of fact, Traboulsi (2007) argues that there was a need to rebalance a Lebanese Economy dominated by the service sector. The areas of the "Chehabist reforms" tried to redistribute the wealth initially created by the growth of the service sector and thus gain political support from the middle classes and rural populations.

The "Chehabist reforms" encompassed the creation of the Lebanese agricultural institutions that are still in place today, and included, in addition to the Ministry of Agriculture, a panoply of offices and directorates scattered across the Lebanese Institutional landscape. The main institutions are :

**The Litani River Authority** (under the tutelage of the Ministry of Energy and Water): Its purpose is the construction and management of large irrigation projects, including the dam on the Litani River (1959) and connected irrigation canals, most of which are still not operational today, in particular the canals that were supposed to irrigate the area south of the Litani.

**The Office of Wheat and Sugar Beets** (under the tutelage of the ministry of Economy and Trade): The office used to be in charge of wheat and sugar beet subsidies, which no longer exist (last subsidies for wheat were provided in 2011, while subsidized for sugar beet stopped during the civil war). However, today, the office is still in charge of the implementation of the bread price ceiling.

**The Régie Libanaise des Tabacs et Tombacs** (created in 1959 under the tutelage of the ministry of finance): The Régie acts as a state monopoly for the production and trade of manufactured tobacco. The Régie is also in charge of managing subsidized production of tobacco through issuing exclusive production licenses to farmers with predetermined quantities and prices. In fact, the Régie was historically (and is still) used as a tool to support the farmers of South Lebanon and reduce their displacement caused by the Israeli occupation (2000-1978). Indeed, "the tobacco crop has become a symbol of resilience, resistance, and people's attachment to the Nation's land" (Régie 2011, visibility pamphlet reported by Hamade 2014). Although the Régie did play a role in supporting the resistance of Lebanese Southern farmers, the official propaganda, "masks the continuous manipulation of tobacco farmers by national political elites, the fundamental economic irrationality of the tobacco industry in Lebanon, and the shortcomings of development policies in Lebanese rural areas" (Hamade, 2014, p 29.)

**The Green Plan General Directorate** (established in 1959 under the tutelage of the Ministry of agriculture): It is an entity that could be considered as a department for rural development. The role of the Green Plan is to support agricultural land reclamation projects and investment in farm-level infrastructures. However, the Green Plan structure was never improved to allow it to undergo significant rural development plans, beyond farm level infrastructure. Furthermore, since 2011 the Green Plan has faced significant budgetary cuts.

**The General Directorate of Cooperatives** (established in 1963 as an independent entity, before being placed under the tutelage of the Ministry of agriculture in the early 1990s): The directorate's role is to regulate, monitor and supervise cooperatives. In fact, the Directorate acts as a leader of cooperatives with limited autonomy and independence, as it governs the cooperatives sector with an administrative approach. Thus, it is important to change the public institutions' paradigm regarding cooperatives, i.e. from perceiving cooperatives as an extension of public administration, to engaging cooperatives as private sector economic actors, controlled and managed by farmers and producers. As a matter of fact, autonomy and independence of cooperatives is also hampered by the subsidized funds attribution system as implemented by public institutions, i.e. through a clientelist and political affiliation basis

and by international donors, i.e. through a system of political spaces and sphere of influence as per each donor's agenda and priorities. Thus, there is a need to both reform the cooperatives law to improve cooperatives' capacity for autonomous management, investment, and growth, and the development and enactment of laws that regulate and protect traditional food recipes denomination.

### 5.2 An agriculture Subordinate to Opportunistic Trade

The Lebanese agricultural sector was able to withstand the lack of agricultural policies, thanks to the ability of the Lebanese mercantile capital and large agricultural estates to catch the opportunities that arise from the successive political shocks in the region. Since 1943, these shocks have created large agricultural investment and trade opportunities, at the expense and through the exploitation of low waged refugee labor and/or the destruction of traditional production systems. Examples of the above include:

- **Large investments in citrus orchards that followed the 1948 Palestinian Nakba, as the presence of skilled (but highly vulnerable) Palestinian refugee farmers, transferred their know-how to Lebanese large estate owners in coastal areas in the South and to a lower extend in Akkar (in the area close to Nahr el-Bared Palestinian refugee camp).**
- **The change in the agricultural mode of production, as traditional systems moved to export oriented production of fruits after the Arab Gulf oil boom (early 1950's). A clear example, of this change is the transformation of the sustainable agro-pastoral system in Aarsal area (Northern Bekaa) into vast production of cherries, with the aim of reaching Arab export markets (see Hamade et al, 2006).**
- **Civil War cannabis and opium production (1990-1975), used by local tribal leaders, as well as Syrian and Lebanese security officers, as a cash generating activities.**
- **Post-Civil War intensification of agriculture (-1990onwards), through the unsustainable used of agricultural inputs pushed by large suppliers, including local branches of international companies.**
- **The new Investment in horticulture and greenhouse production as an answer to the**

**increased demand for food created by the influx of Syrian refugees.**

- **Against this background, it is important to understand the viability and sustainability of such an opportunistic system from a post-Syrian crisis perspective. Since it is highly probable that Syria reconstruction – regardless if it happens in the next few years, or sometime within the next decade – will create a demand for labor, and thus a return of Syrian agricultural workers to Syria. This movement of labor is expected, regardless whether the Syrian workers were present prior to 2011 or came to Lebanon as refugees.**

Such shock it expected to be much different that the previous one, as for the first time, capital and human resources will move out of Lebanon into a neighboring country and not the other way around. It is to expect that such a shock will lead to a difficult transition for Lebanese farmers, landowners, and rural areas in general. Policy makers should be aware that the crisis is in front of us and not behind us.

## 6. Synthesis and Recommendations

The present report presented a thematic critical analysis of the agricultural sector in Lebanon. The aim was to contrast the current situation of the sector with the guiding principles of right to food and food sovereignty as defined by the 1996 World Food Summit and the 2007 Nyéléni civil society forum. Synthesized findings and recommendation are presented hereunder.

The individual right to food security, as defined by the 1996 world food summit: Food security is achieved «when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life».

Although the creation of Grand Liban in 1920 was justified by food security imperatives, Lebanon's laissez-faire trade and agricultural development has created a situation in which enough access to safe and nutritious food is solely thought of in terms of trade openness and possibility for trade exchange. However, this reliance on trade has not allowed the



achievement of food security, as it is estimated that %27 of Lebanese<sup>22</sup> and %53 of Syrian refugees live under conditions of vulnerability and poverty and are not able to meet basic needs, including food.<sup>23</sup> The bread price ceiling is the only policy instrument used by the Lebanese government that is directly related to food security. To a certain extent, it has allowed Lebanon to mitigate the impact of the 2008 food crisis. Therefore, the Lebanese government shall develop and implement a policy instrument that ensure access to food as hereabove defined.

### The right to food, which is healthy and culturally appropriate

Lebanon's food producers have recently engaged in the valorization and revival of local traditional food, a trend that is also boosted by increasing demand from urban middle and upper-middle class consumers. Food products that carry traditional and cultural identity are usually produced by local women producer groups. It is crucial to ensure the economic and autonomy and independence of these producer groups, through a reform of the cooperative law and the development and implementation of a legal framework for traditional food production standards and denomination.

### The right of food providers to live and work in dignity

There is no law regulating the status of farmers and agricultural workers (both Lebanese and Syrian). All the Lebanese agricultural sector is informal. This has opened the door for exploitation of workers, both men and women, as well as children – especially in intensive greenhouse production. Civil society organizations in Lebanon must advocate for the establishment of a legal framework to ensure the socio-economic rights of food producers and agricultural workers.

### The right of countries to protect their own agriculture through subsidies and tariffs

<sup>22</sup> UNDP, CAS, and MOSA (2008) Poverty report based on 2004 households living condition survey. The survey although show that 7% of Lebanese households live in conditions of extreme poverty.

<sup>23</sup> UNHCR Vulnerability assessment of Syrian Refugees in Lebanon (2016)

Lebanon does provide subsidies to food producers and cooperatives, either directly through private funds or indirectly through internationally funded projects. Nonetheless, these subsidizes are not organized in an overarching policy framework that would ensure a proper use of subsidy instruments.

### The right of local food providers to exert control over territory, land, grazing, water, seeds, livestock and fishery (...)

Till now, there are no major concerns related to privatization of natural resources. However, there might be political plans to allow for the privatization of water resources management. Civil society organizations must advocate and raise awareness on the concept of the “right to water”.

### The right to access appropriate agricultural knowledge and skills and the right to reject any technology that undermines food providers' ability to develop and pass on knowledge and skills.

Lebanese agriculture currently uses a low level of technology,<sup>24</sup> rather relying on the availability of low waged Syrian workers. However, the use of technology and innovation in agriculture and food production is expected to become more and more prevalent, especially in the event of a wide return of Syrian refugees and Syrian workers (present in Lebanon prior to 2011) back to Syria. Civil society and farmers organizations should, early on, ensure that the forthcoming Lebanese agricultural technological turn does not undermines food providers' ability to develop and pass on knowledge and skills.

### The right of current and future generations to have a healthy and clean environment and sustain access to natural resources. Local food providers and community members also have the right to refuse and avoid the use of energy-intensive industrial methods that increase gas emissions.

<sup>24</sup> With advanced technological development being limited to large agricultural estates and agro-industrialists.

Lebanon is going through an environmental apocalypse, sea side dumping sites, sea water pollution, heavy and unregulated construction on the costal line, bad forest management practices, extremely bad water management practices, etc. More than ever, civil society organizations must consider the fight for better environmentally sound policies, rules, and regulations as a top priority. As a matter of fact, recent social movement protestation in Lebanon was primarily triggered by environmental issues. However, a national coalition linking farmers and natural resource users organizations with Beirut-based CSOs is a must for a victorious political struggle for the preservation and sustainable use and access to natural resources.

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