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Lebanon Agriculture Sector Note: Aligning Public Expenditures with Comparative Advantage

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lebanon agriculture Sector note: Aligning Public expenditures with comparative advantage

Agriculture is a small but stable part of the Lebanese economy. Approximately 20 to 25 percent of Lebanon's active population is involved in the sector in one way or another.[1] There are a total of 40 agricultural homogenous zones, which possess very distinct socio-economic and geo-political characteristics. For example, the agricultural zones located in the Bekaa and Northern Lebanon provinces cover 67 percent of the total agricultural land and typically belong to large commercial farmers. In contrast, southern zones are comprised of smaller farmers, many of whom live in remote rural areas. Throughout Lebanon, many of these people depend on agriculture as the primary source of income and employment, particularly the poor. Agriculture sector development could play an important role in employment and pro-poor growth.

This note is a synthesis of previous work written on agriculture development in Lebanon and related public expenditures in the sector. It starts with an overview of the agriculture sector in Lebanon and its role and contribution to the economy. This is followed by a SWOT[2] analysis of the agriculture sector which provides the basis for developing a strategic vision for the future development of this sector. While acknowledging the importance of other sub-sectors and commodities, the note focuses primarily on the fresh fruits and vegetables as the most promising sub-sectors. The analysis suggests that Lebanon may want to pursue a two phase agriculture sector strategy that first focuses on fresh fruit and vegetables and agro-processing[3] for domestic and Gulf country markets, eventually followed by entry into European markets. The overview of current institutional capacity suggests that, in order to implement such a strategy, the Ministry of Agriculture (MoA) needs to align its functions around services it will provide, the most important of which are related to various dimensions of food quality and safety. The public expenditure review suggests that the GoL may consider reforming agriculture subsidy programs and reallocating the savings to raise public investments in critical areas including logistics, food quality and safety and research and development. In the longer-term institutional reforms will be needed to consolidate Lebanon's fragmented agriculture expenditures under a single institution that supports a single strategy.

OVERVIEW OF THE AGRICULTURE SECTOR

- **Agriculture is a small and stable part of the Lebanese economy.** Agriculture as a share of GDP has remained relatively stable at an average of 6.8 percent from 1994-2007. This is

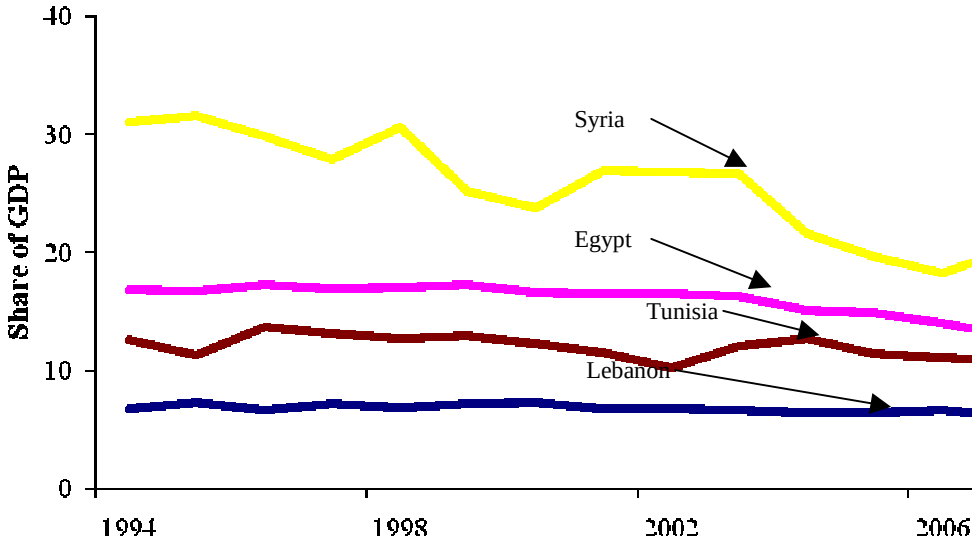
[1] This estimate includes full-time and part-time workers, including seasonal family labor. However, statistics on the portion of the population involved in agriculture vary widely because of different interpretations of "sector involvement" and discrepancies in estimates of migrant workers.

[2] SWOT: An analysis of an entity's **s**trengths and **w**eaknesses and the **o**pportunities and **t**hreats it faces with respect to a particular venture or project

[3] Agro-processing is growing rapidly (20 percent per year), yet there is room to increase growth by export promotion

significantly less than in neighboring Arab countries and is consistent with Lebanon's higher income, more urbanized and diversified economy (Figure 1-1). Agriculture value added per square kilometer is higher in Lebanon than in many nearby countries, reflecting a higher intensity of production and greater agriculture production focus on higher value fruit and vegetables (Table 1-1).

Figure 1-1: In comparison to other MENA countries, agriculture as a share of GDP is low in Lebanon



Source: World Bank, 2009a

Table 1-1: Agriculture plays a relatively small role in Lebanon's economy, but the country is very productive in terms of agriculture value added per square kilometer.

Country	*Agriculture Value Added (% of GDP)*	*Agricultural Employment (% of Total Employment)*	*Ag. Value Added per Worker (Constant 2000 US$)*	*Agriculture Value Added (Constant 2000 US$) / Agricultural Land (sq. km)*
Egypt	13.0	29.9	2,128	556,549
Jordan	3.1	3.6	1,392	26,019
Lebanon	6.1	12.0	——	278,163
Morocco	12.4	44.6	1,657	22,155
Syria	20.4	27.0	3,382	43,572
Tunisia	10.9	——	2,686	28,172

Source: World Bank, 2009a; Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon (CCIAB), 2009
Note: Ag. Value Added Data is for 2007, Ag. Value Added per Worker is for 2005, Ag Employment data is for 2003 with the exception of Morocco (2006) and Lebanon (2009 estimate). All data is from the World Bank, except for Lebanon agriculture employment data (CCIAB, 2009). Data on Lebanon's agriculture value added per worker was available, but not included. This is because the data appears to be significantly inflated due to underestimates of migrant workers. Agricultural employment data for Tunisia was unavailable.

• **There is a strong link between agriculture and poverty in Lebanon.** Approximately eight percent of Lebanese households live below the poverty line. Among major economic sectors, agriculture has the highest rate of poverty. Over 20 percent of heads of households engaged in this sector are very poor. The North governorate is among the hardest hit areas with one in four agriculture workers likely to be poor (UNDP, 2008a). Agriculture sector development could play an important role in pro-poor growth.

DEVELOPING A STRATEGIC VISION FOR THE AGRICULTURE SECTOR

• **Lebanon's strengths are in the production and processing of fruits and vegetables.** The strengths, weaknesses, opportunities and threats to Lebanon's agriculture sector are well documented (Figure 1-2).[4] Strengths include adequate arable land, a Mediterranean climate suitable for early season fruit and vegetable production, entrepreneurial Diaspora and locals (i.e. farmers and traders), and a strategic location between Europe and the Gulf states. It also has sufficient water resources[5] to position itself in high-value fresh and processed horticultural crops for domestic consumption and export. These markets are attractive because they offer stable profit margins and strong growth potential.

[4] Recent initiatives by the Government of Lebanon (GoL) to strengthen agriculture have included the development of the 2004 Agriculture Strategy, which was prepared with the FAO and the World Bank, and the creation of the 2006 Agricultural Strategy Implementation program, a five-year US$ 53 million work-plan that includes 42 agriculture projects that support the 2004 strategy.

[5] With 1,110 m^3 of total renewable water resources per capita per year from 2003-2007, Lebanon is less water scarce than other countries in the Middle East such as Syria (865 m^3), Morocco (940 m^3) and Jordan (164 m^3). However, it is much more water scarce than other small developing countries such as Albania (13,146m^3), Bangladesh (7,761 m^3), and Belarus (5,954m^3) (FAO, 2009b).

• **In comparison to cereal and livestock sub-sectors, fruit and vegetable sub-sectors present a greater opportunity to increase agricultural competitiveness and food security.** This note aims to focus on an agriculture sub-sector with significant growth potential. The SWOT analysis (Figure 1-2) explains that Lebanon is relatively more competitive in fruits and vegetables than in cereals and livestock. First, Lebanon is a relatively water scarce country and livestock put a greater strain on water resources than fruits and vegetables. Second, cereals are a lower-value crop than fruits and vegetables, and have more volatile returns. Third, competitiveness in cereal markets requires producing in high volume. Lebanon is a small country that is very dependent on cereal imports, comprising roughly 83 percent of consumption. Thus, profitability is limited by a constraint on economies of scale. Moreover, making significant investments to reduce cereal import dependency may actually reduce food security by putting further strain on GoL's fiscal balance, thereby limiting its ability to respond to food-price shocks. Livestock growth is also unattractive from a food security perspective because it would significantly increase domestic demand for cereals, increasing the country's exposure to market volatility. For greater detail on Lebanon's food security position vis-à-vis the rest of MENA, please refer to the World Bank's regional publication: "Improving Food Security in Arab Countries (World Bank 2009b)."

Figure 1-2: A SWOT analysis indicates Lebanon is well-suited for high-end FFV and agro-processing markets

Strengths	*Weaknesses*
• Close proximity to Gulf and European markets, which are net importers of fruits and vegetables[6] • Large Diaspora create access points to new markets • Very positive name-recognition in Gulf countries particularly with "Lebanese Apples • Mediterranean climate allows for a long growing season and for crop diversity (World Bank, 2004a) • FFVs are often handpicked and gathered in unpolluted areas and Lebanon's juices are considered high quality, when made from 100 percent natural fruits and vegetables (UNDP, 2008b) • Ready availability and accessibility to agricultural inputs, unlike in many other developing countries • Access to cheap seasonal ag. labor from neighboring countries (mainly Syria, but also from Egypt) • Well-established food canning industry with extensive markets in the Gulf, EU and North America	• Lacking food quality and safety standards • High cost structure compared to other MENA countries[7] • Institutional fragmentation creates bottlenecks • Poor logistics, particularly in timeliness of delivery[8] • Water scarcity as a production constraint and a lack of adequate investments in irrigation infrastructure • Weak marketing infrastructure • High debt service • Lack of land-use planning and rapid urban encroachment over prime farm land • Highly fragmented land holdings and predominance of part-time farming • Severe politicization of agricultural and rural development institutions, with ag. programs and policies driven mainly by political considerations
• Organic FFVs offer higher premiums than conventional products (FAO 2009a)[9] • High-end products offer more stable returns than low-end alternatives • Food commodity prices have fallen considerably since the recent price shock, resulting in lower food subsidies, which may enable realignment of public investment in R&D and food quality and safety • Low penetration rate of MNA FFV exports to	• Egypt, Syria, and Turkey compete in Lebanon's major export markets; Jordan is an emerging threat • Climate change • High vulnerability to future grain-price shocks[10] • Projected long-run increase in key input prices (i.e. petroleum and fertilizer)[11] • Lack of political interest to push ag. strategy forward • Loss of most valuable coastal arable land

[6] Fruits and vegetables include fresh, canned, preserved products and agro-processed as well as juices (FAO, 2009b)

[7] Lebanese agriculture has a high cost structure for several reasons. First, fruits and vegetables often come from mountainous lands. Second, Lebanon has a limited domestic market and small and fragmented holdings that do not allow economies of scale. Third, it has a high proportion of hired labor (around 30 percent) which is mostly foreign. Reportedly, wages for foreign ag. labor, mainly Syrians, are around US$ 10/day, whereas in Syria they are around US$ 3-4/day. This contributes to higher relative production costs in Lebanon. Fourth, Lebanon has wasteful irrigation practices such as furrow irrigation in many areas. Fifth, it has low conveyance, distribution, and on-farm irrigation efficiency. Last, it has high fertilizer and pesticide usage, encouraged by input suppliers. However, this high cost structure is partially offset by high yields comparable to those in Egypt and Turkey (World Bank, 2004a).

[8] The World Bank's Logistics Performance Index indicates that logistics is a weakness (Lebanon ranks 98 out of 150 countries), particularly in timeliness of delivery (Lebanon ranks 115 out of 150 countries) (World Bank, 2007a).

[9] Premiums on organic fruits and vegetables over conventional alternatives are high and fluctuate widely in European markets (typically 20-40 percent higher than conventional prices in many countries) (FAO, 2001).

[10] A combination of factors (e.g. population growth, rising incomes and urbanization, global warming, water scarcity, thin international grain markets and low international cereal stocks) are increasing Lebanon's vulnerability to food-price shocks (World Bank, 2009b)

• **Lebanon's primary objective should be to increase domestic market share and exports to Arab markets.** To achieve this, the country needs to reduce its cost structure and cultivate a high-end fruit and vegetable market. On a per capita basis, Lebanon consumes more fruits and vegetables than any Arab or Western European country[12] (FAO, 2009b), making domestic market share retention very important. At the same time, Lebanon's fruit and vegetable exports outpace imports by approximately 50 percent. Nearly 99 percent of these exports[13] are sent to Arab countries with Saudi Arabia (22 percent), Kuwait (16 percent), and Dubai (9 percent) serving as the top Gulf destination markets. The greatest threat to market share comes from Egypt, Syria and Turkey, which are emerging competitors in four of Lebanon's primary FFV export markets: apples, potatoes, oranges, and cherries (Table 1-2). Among these crops, potatoes have demonstrated the greatest production growth since 2000 (FAO, 2009b), and there are ways in which Lebanon can further improve its competitive position in domestic, regional and overseas markets by targeting high-end niche sectors through investments in quality, safety and marketing (Box 1-1). A number of studies have concluded that in order to compete in the domestic and Gulf fruit and vegetable markets, Lebanon needs to lower its cost structure by increasing productivity. Specific measures may include: technology transfer for using less fertilizers, more efficient irrigation techniques and increasing mechanization where feasible, and reducing structural impediments in agriculture such as voluntary land consolidation through the legal system, and analysis of the land tenure system (World Bank, 2004a; IFAD, 2008). Another potential strategy for Lebanon is to focus on high-end markets where higher premiums and more stable revenues can make up for the country's relatively high cost structure.

Table 1-2: Lebanon faces the greatest competition from Egypt (potatoes and oranges), Syria (apples), and Turkey (cherries and oranges) in the FFV market.

	Apples		Potatoes		Oranges		Cherries	
Country	*Export Value*	*Share of F&V Exports*	*Export Value*	*Share of F&V Exports*	*Export Value*	*Share of F&V Exports*	*Export Value*	*Share of F&V Exports*
Egypt	26	0.0%	65,350	17.3%	65,272	17.3%	0	0.0%
Jordan	2,103	0.8%	4,730	1.7%	703	0.3%	97	0.0%
Lebanon	11,589	9.4%	10,028	8.1%	6,123	5.0%	5,877	4.8%
Syria	76,302	11.7%	11,653	1.8%	13,871	2.1%	5,355	0.8%
Turkey	3,024	0.1%	7,437	0.2%	89,651	2.3%	141,656	3.7%

Source: FAO, 2009b
Note: Apples, potatoes, oranges, and cherries are among Lebanon's primary FFV in terms of export value
Note: Export values in US$ thousands

[11] The Energy Information Association (EIA) projects a 2.6 percent annual increase from 2007-2030 in the price of petroleum (EIA, 2008). This will put upward pressure on the price of fertilizer.
[12] Lebanon consumed roughly 1.5 million metric tons of vegetables in 2008. In 2003, 498 kilocalories/capita/day came from fruits and vegetables, representing almost 16 percent of total daily calorie intake. Arab countries that also consume a lot of fruit and vegetables include UAE (475 kilocalories/capita/day, 15 percent of total consumption) and Saudi Arabia (340 kilocalories/capita/day, 12 percent of total consumption). In Western Europe, Greece (472 kilocalories/capita/day, 13 percent of total consumption) and Italy (387 kilocalories/capita/day, 11 percent of total consumption) eat the most fruits and vegetables (FAO, 2009b).
[13] Based on 2006 exports, measured in tons (Central Administration for Statistics Lebanese Republic, 2009)

Box 1.1: Increasing production of potatoes for select high-end fresh and agro-processed markets may facilitate strong domestic, regional and international growth

The table below indicates that potatoes play a relatively more important dietary role in Lebanon than in nearby Arab countries and as previously mentioned it is one of the most important crops for the country in terms of export value. Although Lebanon is a net exporter in weight terms, it is a net importer in terms of value, highlighting that Lebanon's potatoes receive much lower prices abroad than what Lebanese consumers pay for the imported variety.[14] In contrast, the other major regional potato exporters, Egypt and Syria, are net exporters in value terms. A likely explanation for this is that Egypt and Syria export more disease-free potato tubers grown under contract with European companies for planting in Europe, whereas Lebanese exports are more frequently used as table potatoes.

Although Lebanon already has well-established markets for its potatoes, there are ways in which the country can significantly improve its competitive position by targeting select niche markets. To increase domestic, regional and international market share, Lebanon may consider augmenting potato production for higher-end markets. One way it can do this is by making investments in potato quality and safety, such as exploring ways to reduce risks such as brown-rot disease or ways to improve flavor, size and appearance. While such investments may enable strong growth in domestic markets, export markets present greater challenges that would need to be considered. First, exporting fresh potatoes is challenging because of their relatively short shelf-life, making timeliness of delivery very important. Second, there is relatively low demand for the food in nearby Arab countries – bread and other wheat-based products are more popular starches than potatoes. Third, potatoes are a heavy crop, making transport costs relatively high. Thus, a move to increase fresh potato regional exports abroad would require investments in quality and safety to enter higher-end markets where higher premiums can serve as a counterweight to the high transport costs. It would also require significant marketing efforts to stimulate higher demand from Gulf countries.

A more viable export strategy may be to augment production for agro-processing of potato chips. Potato chips have a relatively longer shelf-life and lower transport costs than fresh potatoes, making them more attractive for export. Even the potato chip market now has "high-end" brands. Penetrating such niche markets may present Lebanon with another opportunity to brand itself as the MENA country of choice for high-end foods. Another attractive characteristic of the potato chip industry is that producers in Lebanon are usually relatively large companies and encouraging their growth could generate employment.

Country	*Percentage of Total Consumption*	*Next Exports (Tons)*	*Net Exports (Value in US$ 1000)*
Egypt	1.1%	309,120	95,083
Jordan	1.3%	-16,644	-5,936
Kuwait	1.4%	-45,319	-8,326
Lebanon	5.7%	36,399	-11,689
Saudi Arabia	1.0%	5,741	-4,517
Syria	1.6%	34,310	3,034
UAE	0.6%	-69,370	-15,216

Source: FAO (2009b)
Note: Consumption data is for 2003. FAO reports that production and consumption in Egypt has increased dramatically in recent years, so current consumption figures may be much higher. Export data is for 2006.

[14] Lebanon exports approximately US$ 10 million in potatoes and imports roughly US$ 22 million.

• **Lebanon should consider exporting to Europe a secondary opportunity.** Europe presents an attractive growth market, but barriers to entry are higher for Lebanon there than in the Gulf. Thus, Lebanon should pursue European markets only after it establishes the know-how and technology to become the high-end domestic and Gulf market leader. It can then leverage this capability to penetrate the European market, but this will require delivering products that match European customer preferences, which are different than those in the Gulf. This means that producers must meet a growing demand in Europe for organic FFVs, which consumers are willing to pay more for than conventional alternatives. It must also meet strong demand for agro-processed items such as high-end fruit juices, olive oil and vinegar, and canned products. Lebanon could increase marketing efforts to establish a brand name for its FFVs in Europe. National branding can create longstanding competitive advantages for countries' primary food exports. For instance, Scottish beef, French wine, and Russian caviar are high-end foods successfully marketed throughout Europe. Lebanese FFVs can become very popular as well if a successful marketing segmentation and advertising program is followed. The private sector can play an important role in strengthening Lebanon's marketing efforts. MoA could seek partnerships with advertizing and marketing firms with demonstrated success promoting high-end foods in Europe as well as high-end grocery stores, where retailers charge higher prices for FFVs.

• **Lebanon also needs to focus on quality and safety.** Tightening food quality and safety standards can increase profit margins as retailers and restaurants are willing to pay more money for safe food. For instance, a major U.S. meat processing plant used innovative sterile production technology to produce safer meat for hamburgers. The final product costs up to 25 percent more than that produced by competitors, but the firm maintains a significant share of the market, with its meat found in 75 percent of hamburgers sold in the United States (Washington Post, 2008). Tightening food quality and safety standards also can help facilitate trade. Standards are particularly high in European markets. Successful market penetration requires Lebanon's private sector to adopt GLOBALGAP[15] standards for FFV and International Organization Standards (ISO) for processed products. Improving elements of food logistics systems such as tracking, tracing, and timeliness can also enhance food quality and safety. Timely delivery helps ensure that foods stay fresh and traceability provides added consumer protection, incentivizing producers to maintain high standards. Lebanon ranks 101 out of 150 countries on the World Bank's Logistics Performance Index in terms of tracking and tracing. Its performance is lower in timeliness, ranking 115 out of 150. Thus, appropriate investments in logistics systems, as detailed below, may help Lebanon increase market share at home and abroad.

INSTITUTIONAL CAPACITY TO DELIVER THE STRATEGY

• **Institutional functions need to be aligned with strategic objectives.** There are four Directorates within MoA: Animal Resources, Coordination and Studies, Plant/Agricultural Resources, and Rural Development. This structure is not well-aligned with the objective of promoting quality and value. For example, none of the Directorates focus on marketing or

[15] GLOBALGAP is a private sector body that sets voluntary standards for the certification of agricultural products around the globe (GLOBALGAP, 2009)

consumer protection/food safety issues. Another example of the problem of institutional alignment and strategic objectives is that the 2006 action plan was not under the purview of any one Directorate, does not reflect a unified vision, and has not been fully adopted internally (World Bank, 2007b). In addition, extension and advisory services have limited capacity, particularly extension, which limits Lebanon's ability to extend technical knowledge on food quality and safety and other key issues.

• **Local governments along with other local actors are an important asset for effective sector development.** Strategy implementation could be strengthened through better coordination between central and local governments. Many local governments have representatives with well developed skills in private sector and agribusiness. Local governments, particularly municipalities, are often instrumental in organizing farmers into cooperatives. Many of the regional and rural development initiatives are highly centralized and managed by central government, with limited local government and community participation in setting investment priorities or in project design. This generally weakens implementation. Although no project (donor funded or funded by the central government) can be implemented without municipality approval, elected municipalities play a minor role in local and regional development due to opposition from the political establishment, meager financial resources with limited/inadequate tax base and transfers from the central government, and limited human resource capacity (World Bank, 2004b). Non-governmental local actors and their organizations have also a role to play. These institutions; be it non-profit, private sector, or professional organizations; could contribute to projects design and implementation through determining real needs. This is due to their daily and close work with local communities.

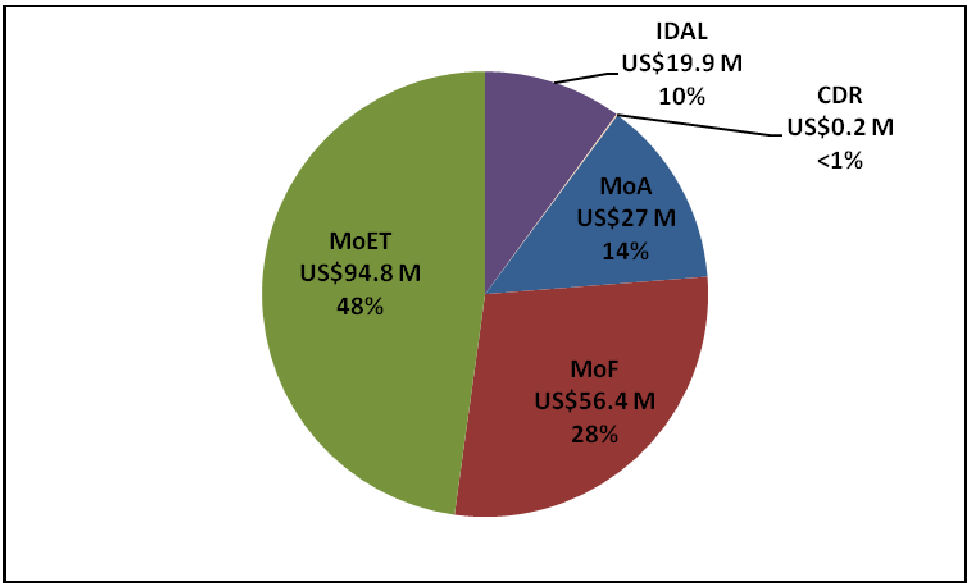
PUBLIC SPENDING IN AGRICULTURE

• **Public spending in agriculture is highly fragmented.** There are numerous institutions responsible for public spending in agriculture, irrigation, and rural development. The institutions involved include the MoA (which includes the Green Plan and the Lebanese Agricultural Research Institute or LARI), the Ministry of Economy and Trade (MoET), the Ministry of Finance (MoF), the Ministry of Energy and Water (MoEW), the Litani River Authority (LRA), the Investment Development Authority of Lebanon (IDAL), the Council of Development and Reconstruction (CDR), the Council of the South, and the donor community. The MoA is the designated lead on implementing the agriculture strategy. LARI, which is under the supervision of MoA, is a public institution for agricultural research.

• **Much of the public spending in agriculture is not under the Ministry of Agriculture (Figure 1-3).** The Office of Grains and Sugar Beet subsidy in MoET administered the wheat subsidy, which grew to US$ 94.8 million in 2008 as a result of the food-price shock. With the elimination of the sugar beet subsidy in 2007 and the wheat subsidy in 2008, its role in agriculture has diminished, but it still participates in the management of the wheat silos in the port of Beirut (World Bank 2009c). MOF's role in agriculture is twofold. First, it involves supervising the tobacco subsidy, which totaled US$ 51.1 million in 2008. The subsidy is paid directly from import taxes received from the Regie Libanaise des Tabacs et Tombacs (a private company monopoly), which MOF oversees. Second, the ministry subsidizes the interest of a credit program for productive projects run by the Central Bank of Lebanon (BDL). In 2008, the

subsidy for agriculture related projects reached US$5.3 million[16]. MoEW and LRA guide the irrigation investment programs. IDAL manages the Export Plus program, which provides reimbursements for part of the transportation costs of Lebanese exporters of fruit and vegetables as long as they adhere to some quality standards (IFAD, 2008).[17] Finally, the donor community has a very active role in the sector, providing significant financing through grants and loans. The main problem is there is little coordination among the various stakeholders (World Bank, 2003a), resulting in a myriad of agriculture and related irrigation and rural development programs without an overarching strategic focus. Thus, the need for the upcoming multi-year IFAD financed agriculture strategy that takes into account fragmentation and proposes ways to consolidate and coordinate activities and spending. For a further decomposition on agriculture spending, please refer to the tables in Annex 1.

Figure 1-3: Public spending in agriculture is fragmented and the two biggest programs are outside MoA



Source: World Bank 2009c; Mansour, 2009; MoF, 2009
Note: All figures are actual expenditures except for IDAL, which is estimated 2008 budget. MoF figure equates to cost of tobacco subsidy and cost of subsidy on the interest of loans for agriculture projects under the credit program administered by BDL, MoET figure equates to cost of wheat subsidy, and IDAL equates to budgeted figure of Export Plus program. Chart does not include MoEW and LRA irrigation expenditures, Council of the South spending or donor funding,

- **Nearly 97 percent of MoA's expenditures are on administration, O&M of building and equipment and the purchase of new furniture and equipment.** Table 1-3 indicates that recent expenditures on investment have only come under the Forestry program (focuses on land,

[16] Source: Ministry of Finance Calculations. Refer to the annex for subsidy figures in 2006 and 2007. Data for the interest subsidy by sector of activity is not available. Estimates of subsidies to agriculture sector were estimated based on share of loans to this sector out of total loans.
[17] The EU and Lebanon signed an association agreement in mid-2002, which provides favorable conditions for the export of Lebanese products provided they meet quality and phytosanitary standards (IFAD, 2008). There is limited evidence as to the extent with which exporters have met these standards and further study is necessary.

water, and irrigation facilities construction), which accounted for only 3.1 percent of the 2008 budget[18] (World Bank, 2009c).

Table 1-3: The forestry program under the capital budget is essentially the only annual investment made by MOA in agriculture.

Ratio to Total MoA Budget (percentage)	*2006*	*2007*	*2008*
I. Recurrent Budget	99.1	95.7	94.1
II. Capital Budget	0.9	4.3	5.9
II.a- Administrative affairs	0.6	1.9	2.6
II.b- Forestry program	0.1	2.2	3.1
II.c- Groups Affairs program	0.1	0.1	0.2

Source: World Bank, 2009c

• **Lebanon under-invests, particularly in food quality and safety.** Countries in Eastern Europe that are competing with Lebanon for entry into European markets are spending considerably more on investment to upgrade their food quality and safety systems. In Albania, investment comprised 58 percent of the Ministry of Agriculture, Food and Consumer Protection's (MAFCP) planned expenditures for 2007 (World Bank, 2007c). In FYR Macedonia, public investment comprised 36 percent of the Ministry of Agriculture, Forestry, and Water Economy's (MAFWE) planned expenditures for 2006 (World Bank, 2006). Lebanon's accounts reveal relatively low levels of spending on food quality and safety programs. Roughly US$ 1.1 million was spent in 2007 on these initiatives through IDAL's export plus program (WTO, 2008). This is equivalent to approximately 4 percent of the 2007 MOA budget. Compare this to Albania, where agricultural and food safety inspections and services and consumer protection comprised roughly 23 percent MAFCP's 2007 planned expenditures.

• **The tobacco subsidy is nearly twice the size of the MoA's budget.[19]** The tobacco industry employs roughly 37,000 people including 24,000 farmers (International Labour Organization, 2002). Many tobacco farmers are not well-diversified in agricultural production and have expressed an unwillingness to switch to other crops (IDRC, 2008). The tobacco subsidy serves a social and political role by transferring income to rural producers especially in the southern parts of the country and some parts of Bekaa and the North. Furthermore, the future of the tobacco industry faces many challenges due to the implications of the World Health Organization's Framework Convention on Tobacco Control and Lebanon's goal of accession into the World Trade Organization (IDRC, 2008).

• **Key lessons learned from countries that have successfully eliminated crop price supports include: adequately compensate farmers for potential income loss, educate them about new support programs and provide technical assistance to help them adjust.** In Turkey, there was great concern that farmers would not be adequately compensated when

[18] This figure does not include the capital spending done by the Green plan whose allocated budget appears in the recurrent section of the MOA budget.

[19] The 2008 tobacco subsidy amounted to US$ 51.1 million, roughly 89 percent greater than the 2008 MOA budget of US$ 27 million.

subsidies were replaced with a direct income support (DIS) program, creating a major challenge for reform. In addition, many farmers did not participate in the support program because they did not realize they were eligible or found the requirements to confusing and strict. In New Zealand, the government offered a one-time grant to farmers valued at approximately two-thirds of their previous year's farming income. It was expected that the subsidy removal would lead to 10 percent of farmers leaving agriculture, but in the end only one percent left. The transition process was also made easier in Mexico which offered technical assistance to help farmers invest their direct payments in productive activities with high rates of return. The key take away for Lebanon is that tobacco subsidy removal would undoubtedly cause friction; however, negative effects can be mitigated by tying receipt of uncoupled support to farmers remaining on their land, by accompanying a DIS program with a wide-spread information campaign to ensure that eligible farmers understand how to receive payment, and by providing technical assistance to help farmers invest in alternatives to tobacco production that stimulate investment and labor demand. Alongside this note, the Bank has prepared a report that examines Lebanon's tobacco subsidy and lessons learned from countries that eliminated subsidies. For further information, please refer to "Decoupling Income Support from Tobacco Production in Lebanon: Challenges and Opportunities."

• **Irrigation expenditures are equally fragmented.** The GoL has adopted an ambitious irrigation strategy that aims to increase irrigation potential by 30 to 50 percent in the next 30 years (World Bank, 2004a). By increasing its irrigation potential, Lebanon can improve its capability to produce high-value crops for export. However, there is no comprehensive vision for water sector development. This is because – as with agriculture – there are numerous government institutions involved in water sector and irrigation planning and management, with overlapping mandates and responsibilities and unclear lines of authority (IFAD, 2008). No strategies are in place to improve the management of the irrigation sector. The focus on expensive upstream infrastructure investment[20] comes at the expense of efficient water-use. For example, the Conveyor Project, already committed under the Government's US$ 1.3 billion irrigation investment plan, will cost US$ 460 million to irrigate 13,230 ha. This equates to an extremely high cost of US$ 34,769/ha (World Bank, 2004a). In addition, necessary reforms are bogged down by political rivalries. Although the new water law was promulgated in 2000, there have been delays in establishing the regional water authorities and local water committees. Water user associations have not been developed as envisaged. No overall master plan has been formulated to prioritize the investment programs and water-use of the various agencies. Further details on irrigation expenditures are available in the World Bank's "Water Supply and Sanitation Sector: Public Expenditure Review (World Bank, 2009d)."

RECOMMENDATIONS

Investment recommendations

• **Improve logistics by promoting private sector investment and by providing training.** Efficient supply chains cut costs and ensure sufficient supplies by improving distribution of FFV and their inputs such as fuel and fertilizer. Investing in logistics can improve the traceability and expedite the delivery of Lebanon's exports, ensuring that perishable foods stay fresh and safe.

[20] The construction of 12 dams and 18 hill lakes to increase Lebanon's water storage capacity (IFAD, 2008)

There are a number of ways in which Lebanon can improve its logistics performance by encouraging greater private sector participation and by taking actions that facilitate trade.

1. GOL could promote investment in the domestic value chain including cold storage and transport.
2. GOL could also invest in better border facilities for enhanced FFV exports, particularly land crossings with Syria, possibly in close collaboration with the Syrian government and private sector companies from both countries. Such investments could improve the safety and dependability of export routes which have been compromised in recent years due to political/security reasons (e.g. closure of transit gateways through Syria, closure of routes leading to Beirut airport and closure of the airport). Occasionally, this has led to default on export contracts and loss of confidence in Lebanese farmers and exports.
3. The Government could also help facilitate partnerships between exporters and private sector trucking and shipping companies located in major export hubs.
4. GOL could also contract the private sector to develop traceability and tracking IT tools. For example, advanced GPS technology linked to a management information system, can provide stakeholders with greater visibility of FFV exports in transit. Such investments could reduce potential congestion at ports and improve timeliness of delivery. The Government may consider launching a pilot program to solicit ideas from leading logistics companies on how such programs could be implemented.
5. The Government may survey leading FFV exporters to find ways in which the export process can be expedited.
6. GOL can also provide training to first-time exporters and private and public sector employees working at major trade hubs to reduce operational inefficiencies.

• **Increase public investment in agricultural research and development to enhance productivity and to find innovative ways to improve food quality and safety.** Recent studies indicate that the country invests approximately 0.4 percent of agricultural GDP (AgGDP) in agricultural R&D (Casas et al. 1999; IFPRI, 2008). This is lower than the developing-country average of 0.53 percent, and far below the recommended investment level of 2 percent of AgGDP (Gana et al., 2008). Investing in R&D can substantially increase productivity in the country and can improve food quality and safety. Given the need to have a critical mass of researchers and funding in any discipline, Lebanon should identify the top two to three priority areas where the very limited R&D funds should be invested. Thus, priority areas should be aligned with key issues from the SWOT analysis such as food quality and safety, agro-industry and organic farming. For instance, many tobacco farmers considering a switch to FFV farming cite a lack of technical knowledge and difficulty getting the necessary inputs (e.g. seeds) to switch crops. Thus, GoL may invest in the extension system to facilitate this switch. Investment in R&D could also benefit FFV farmers by improving their productivity, which could increase income under a scenario of rising inputs costs (i.e. fuel and fertilizer prices). In addition, improved food quality and safety can help them access new markets. Lebanon has the infrastructure to undertake more R&D through LARI and three universities with undergraduate and postgraduate agriculture programs and related farms (i.e. Lebanese University, the American University of Beirut and Université Saint Joseph). GOL may also consider consolidating the current agriculture research structure into an overall scientific research structure such as the

CNRS, where more synergies could be achieved. Further studies on this recommendation are recommended.

• **Expand irrigated agriculture through investments in water capacity.** Water storage capacity is far below the level of other MENA countries: dam capacity accounts for only 5 percent of total renewable water resources in Lebanon, against 56 percent in Morocco and almost 300 percent in Egypt. The lack of adequate water storage capacity is a constraint on irrigation, which accounts for more than 60 percent of total water consumption (World Bank, 2009d). This is of particular importance in the South where public investments in irrigation are badly needed to encourage farmers to invest in farming and to expand their productivity and total production. Such investments could be an integral part of attempts to eliminate tobacco subsidies and to introduce alternative crops to replace tobacco. However, if fiscal or implementation constraints become binding, downsizing the investment program will require a coordinated initiative to prioritize investments, as planning and execution responsibilities are shared between the MoEW and the LRA (World Bank, 2009d).

Long-term and structural recommendations

• **Refocus agriculture expenditures on investment.** Better alignment of public expenditures with strategic objectives would enable Lebanon to achieve higher returns on its investments without spending more money. One approach involves placing a greater focus on capital expenditures relative to recurrent expenditures. GoL can facilitate this by reallocating money saved from the elimination of the wheat subsidy to increase capital spending. In addition, reforming the tobacco subsidy could also generate significant cost savings that could further raise investment. . Competitive grant programs can be devised to support investment in thematic areas such as marketing, productivity, and improving food quality and safety. Examples of these programs are increasingly common in Europe and Central Asia.

• **Consolidate agriculture expenditures in the hands of a single institution and create a directorate that oversees and invests in food quality and safety.** This would require collapsing the very fragmented budget into a single line for a single institution such as the MoA. The MoA would then have sufficient resources to fully align its strategy with its key objectives. This would require MoA to restructure around functions that better support sector development such as supply chain management, marketing, and food quality and safety. For example, the creation of a Food Quality and Safety Directorate could oversee programs that help agriculture exporters adopt international food safety standards (e.g. sanitary and phytosanitary measures) aligned with target export markets. It could be in charge of making investments towards appropriate food safety certification. Adoption of such standards and certification reduce the chances that exports are rejected. It could also advise and cooperate with representatives from agriculture committees of local and regional governments to encourage domestic FFV producers to adopt and comply with these standards. Moreover, it is important that the Directorate effectively market the high-quality and safety of FFVs. Now would be an opportune time to help MOA restructure and rejuvenate because at least 70 percent of the professional positions are empty. This is largely due to the Government's hiring freeze policy which has been in effect since the late 1990s (World Bank, 2007b). Further studies on the establishment of such a Directorate are recommended.

References:

Casas, J., M.B. Solh, H. Hafez. 1999. The National Research Systems in West Asia and North Africa Region. Aleppo, Syria: International Center for Agricultural Research in the Dry Areas (ICARDA).

Central Administration for Statistics, Lebanese Republic. 2009. Online database available at http://www.cas.gov.lb/addsearch_en.asp

Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon. 2009. "Agriculture in Lebanon." Available online at http://www.ccib.org.lb/Agriculture/ServicesAginLebanon.aspx

Council of Development and Reconstruction (CDR), 2009. Personal communication based on email exchange between Wael Mansour and, Regie Libanaise des Tobacs et Tombacs. April 8, 2009.

Energy Information Administration (EIA). 2008. Petroleum Product Prices. Available online at http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_12.xls

FAO (Food and Agriculture Organization). 2001. "World Markets for Organic Fruits and Vegetables." Rome: Food and Agriculture Organization.

_____. 2009a. "Organic Agriculture" Available online at: http://www.fao.org/organicag/oa-faq/oa-faq5/en/

_____. 2009b. "FAOSTAT." Online database available at http://faostat.fao.org/.

Gana, A., K. Latiri, A. Suleri, R. ben Zid. 2008. "Central and West Asia and North Africa Summary for Decision Makers." International Assessment of Agricultural Knowledge Science and Technology for Development (IAASTD). Available at http://www.agassessment.org/docs/Global_SDM_060608_English.pdf.

GLOBALGAP. 2009. GLOBALGAP homepage available at http://www.globalgap.org/cms/front_content.php?idart=3&idcat=9&lang=1

International Development Research Center. (2008). "Raw Tobacco Price Subsidy: Implications for Farm Income and Natural Productive Resources". Technical Report Number 103454-002. Ottawa.

IFAD (International Fund for Agricultural Development). 2008. "Hilly Areas Sustainable Agriculture Development Project Formulation" Volume 1. Rome: International Fund for Agricultural Development.

IFPRI (International Food Policy Research Institute). 2008a. “International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT): Model Description.” Washington DC: International Food Policy Research Institute.

International Labour Organization. 2002. *Lebanon: Child Labour on Tobacco Plantations. A Rapid Assessment,* International Programme on the Elimination of Child Labour (IPEC). Geneva: Consultation and Research Institute.

Mansour, Wael. 2009. Personal communication based on interview with Head of Finance, Regie Libanaise des Tobacs et Tombacs. April 8, 2009.

Ministry of Finance, Lebanon. 2009. “Public Finance Monitor.” December 2008. Available online at http://www.finance.gov.lb/Reports+and+Publications/Yearly+Quarterly+and+Monthly+Reports/Reports+and+Publications.htm

Washington Post. 2008. “Engineering a Safer Burger.” 12 June.

World Trade Organization (WTO). 2008. “Information on Domestic Support and Export Subsidies in the Agriculture Sector.”

World Bank. 2003a. “Perspectives on Agriculture Sector Issues.” Washington, DC: World Bank.

_____. 2004a. “Republic of Lebanon, Policy Note on Irrigation Sector Sustainability.” Washington, DC: World Bank.

_____. 2004b. “Perspective on Rural Space Development.” Washington, DC: World Bank.

_____. 2006. “FYR Macedonia Agriculture and EU Accession: Achieving FYR Macedonia’s Agricultural Potential.” Washington, DC: World Bank.

_____. 2007a. *Connecting to Compete: Trade Logistics in the Global Economy.* Washington, DC: World Bank.

_____. 2007b. “World Bank Consultancy with Lebanon’s Ministry of Agriculture.” Washington, DC: World Bank.

_____. 2007c. “Albania Strategic Policies for a More Competitive Agriculture Sector.” Washington, DC: World Bank.

_____. 2009a. World Bank Online Database available at www.worldbank.org/data.

_____. 2009b. “Improving Food Security in Arab Countries.” Washington, DC: World Bank.

_____. 2009c. “Descriptive Figures on Lebanon’s Agriculture Public Spending.” Washington, DC: World Bank.

_____. 2009d. “WSS Sector: Public Expenditure Review.” Washington, DC: World Bank.

UNDP (United Nations Development Programme). 2008a. “Poverty, Growth and Income Distribution in Lebanon.”

_____. 2008b. “Proposed Strategic Guidelines for the ART GOLD Lebanon Programme.”

ANNEX 1

Descriptive Figures on Agriculture Public Spending

I. Ministry of Agriculture (MoA)

The figures for MoA come from the draft budget laws of 2007 and 2008. Due to political uncertainties and closure of parliament, the last official budget law produced in Lebanon was in 2004. The figures below are not actual public expenditures, but they are not drastically different due to two facts:

1. Ninety percent of MoA's budget is recurrent expenditure, and
2. The 12 months rule applies, where in the absence of a voted budget public administration, expenditures are determined on a monthly basis based on expenditures from the previous year.

Actual figures were not provided as the Ministry of Finance (MoF) did not collect these figures for 2007 and 2008 from the respective ministries. Additionally, the last budget execution bulletin produced was in 2003.

Descriptive statistics (refer also to tables below):

- MoA budget is calculated at 0.3 percent of the total Lebanese central government and related institutions' budget.
- The total MoA budget increased from around US$ 24 million in 2006 to US$ 27 million in 2008. This increase is mainly due to the increase in the poultry and cattle program and capital expenditure.
- Current expenditure constituted respectively 99.1, 95.7 and 94.1 percent of the 2006, 2007 and 2008 total budget allocated for MoA.
- Capital expenditure is predominantly for maintenance of buildings and equipment (IT in particular), and purchase of new furniture and equipment. The only physical capital expenditure beyond services and recurrent spending is registered under the Forestry program which accounts for land, water and irrigation facilities construction. This program accounted for 3.1 percent of the 2008 budget (less in previous years). This figure does not include the capital spending done by the Green plan whose allocated budget appears in the recurrent section of the ministry.

MoA Budget Figures (000 US$)	*2004*	*Actual 2004*	*2006*	*2007*	*2008*
Total Budget	27,377	21,922	23,900	26,776	26,995
I- Recurrent Budget	25,047	21,020	23,694	25,623	25,391
I.a- Administrative affairs	8,453	n.a	7,667	8,221	7,624
o/w wages and salaries	7,006	6,877	6,568	6,826	6,457
I.b- Agriculture program	3,457	n.a	1,530	2,326	2,189
I.c- Forestry program	148	n.a	123	80	44
I.d- Maritime and terrestrial Hunting program	1,194	n.a	100	66	40
I.e- Poultry and Cattle program	1,041	n.a	630	634	1,108
I.f- Training program	1,025	n.a	1,000	1,060	1,040
I.g- Research and agriculture support program	8,624	n.a	11,837	12,272	12,272
o/w Green Plan	4,643	n.a	6,633	6,633	6,633
o/w LARI	3,980	n.a	4,312	4,312	4,312
I.h- Groups Affairs program	1,105	n.a	807	964	1,075
II- Capital Budget	2,330	902	206	1,153	1,604
II.a- Administrative affairs	1,591	n.a	141	518	712
II.b- Forestry program	730	n.a	33	597	829
II.c- Groups Affairs program	10	n.a	33	37	63

Ratio to Total MoA Budget (percentage)	*2004*	*Actual 2004*	*2006*	*2007*	*2008*
Total Budget	100	100	100	100	100
I- Recurrent Budget	91.5	95.5	99.1	95.7	94.1
I.a- Administrative affairs	30.9	n.a	32.1	30.7	28.2
o/w wages and salaries	25.6	31.4	27.5	25.5	23.9
I.b- Agriculture program	12.6	n.a	6.4	8.7	8.1
I.c- Forestry program	0.5	n.a	0.5	0.3	0.2
I.d- Maritime and terrestrial Hunting program	4.4	n.a	0.4	0.2	0.1
I.e- Poultry and Cattle program	3.8	n.a	2.6	2.4	4.1
I.f- Training program	3.7	n.a	4.2	4.0	3.9
I.g- Research and agriculture support program	31.5	n.a	49.5	45.8	45.5
o/w Green Plan	17.0	n.a	27.8	24.8	24.6
o/w LARI	14.5	n.a	18.0	16.1	16.0
I.h- Groups Affairs program	4.0	n.a	3.4	3.6	4.0
II- Capital Budget	8.5	4.1	0.9	4.3	5.9
II.a- Administrative affairs	5.8	n.a	0.6	1.9	2.6
II.b- Forestry program	2.7	n.a	0.1	2.2	3.1
II.c- Groups Affairs program	0.04	n.a	0.1	0.1	0.2

Note: The 2004 budget is the last budget law voted by Lebanese parliament. All figures from later years are drawn from budget law proposals that were only approved by cabinet. The Lebanese government has been spending according to the 1/12 rule. Actual figures only exist for 2004 since it is the last year also where the closing of accounts was voted by parliament.

Yearly Change (percentage)	*2007*	*2008*
Total Budget	12.0	0.8
I- Recurrent Budget	8.1	-0.9
I.a- Administrative affairs	7.2	-7.3
o/w wages and salaries	3.9	-5.4
I.b- Agriculture program	52.0	-5.9
I.c- Forestry program	-35.1	-45.0
I.d- Maritime and terrestrial Hunting program	-33.3	-40.0
I.e- Poultry and Cattle program	0.6	74.7
I.f- Training program	6.0	-1.9
I.g- Research and agriculture support program	3.7	0.0
o/w Green Plan	0.0	0.0
o/w LARY	0.0	0.0
I.h- Groups Affairs program	19.4	11.5
II- Capital Budget	458.7	39.2
II.a- Administrative affairs	268.6	37.3
II.b- Forestry program	1,700.0	38.9
II.c- Groups Affairs program	14.3	69.6

II. Office of Grains and Beetroot Subsidy (OGBS)

The OGBS falls administratively under the Ministry of Economy and Trade (MoET) and has three main functions:

- Overseeing the beetroot subsidy;
- Managing the wheat subsidies (both imported and locally produced wheat); and
- Participating in the management of the wheat silos in the port of Beirut

The Lebanese government intends to close the office since it stopped the beetroot subsidy in 2007 and set 2008 as the final year for the wheat subsidy. However, the OGBS is still active and resumes its work.

A) Beetroot Subsidy:

The beetroot subsidy started in 1992 and was eliminated in 2007. The subsidy took four main forms for transfers' allocation over its 15 year life span. The four mechanisms are briefly described below:

- Mechanism 1 (1992-2000): government subsidy encouraged beetroot cultivation, production and processing. Government subsidized the price of beetroot with 15% sweetness specifics. The office took the produced sugar and sold it itself to various markets.
- Mechanism 2 (2001-2003) Subsidy stopped completely. No production of beetroot or sugar was done. Direct cash transfers were administered to farmers as compensation.
- Mechanism 3 (2004): government subsidized cultivation and not processing. The total area of beetroot cultivation was set at a maximum of 30,000 dunoms.
- Mechanism 4 (2005-2007): Subsidizing cultivation and not processing. Direct cash transfers to farmers according to dunoms of cultivated land. Checks were done to verify the areas of cultivated land. A decreasing subsidy over 3 years where cuts by 1/3 was done per year till its abolishment in 2007.

Beetroot Subsidy Mechanisms	*Year*	*Area (dunom)*	*Beet Root Produced (ton)*	*Sugar Produced (ton)*	*Subsidy (Mln US$)*
Mechanism 1	1992	10,648	40,834	4,296	4,643
	1993	33,000	177,417	17,393	8,889
	1994	38,447	222,226	20,668	9,784
	1995	60,000	245,488	26,376	12,935
	1996	58,000	275,301	28,142	13,466
	1997	71,156	270,714	9,631	13,599
	1998	76,215	342,672	37,102	15,257
	1999	65,442	277,529	30,818	13,930
	2000	71,594	362,239	41,691	19,104
Mechanism 2	2001				0
	2002				15,589
	2003				0
Mechanism 3	2004	11,700	52,620	5,852	3,426
Mechanism 4	2005	6,573 dunoms sold for US$309/dunom			2,032
	2006	5,115 dunoms sold for US$206/dunom			1,055
	2007	827 dunom sold for US$103/dunom			85

B) Wheat Subsidy:

B.1- Locally Produced Wheat:

The GoL started subsidizing locally produced wheat in the 1980s and continued to do so until 2008. Data obtained from the OGBS is from 2000 and 2002. The mechanism adopted for local production wheat starting 2000 is the following: the OGBS purchased the wheat from the farmers at unified prices and sold it at the international market prices. In many years, the OGBS made actually gains from locally produced wheat as market prices *were higher* than buying prices. Selling wheat to government is optional for the farmers. In 2008, due to a significant increase in wheat prices, farmers bypassed the government and mostly exported their products (preferred destination was Iraq).

	a	b	c	a*(c-b)
Year	*Quantities (ton)*	*Buying Price (US$)*	*Selling Price (US$)*	*Gain/Subsidy (000 US$)*
2000	67,323	265.3	297.2	2,144
2001	70,417	265.3	297.2	2,242
2002 (a)	24,077	248.8	248.8	0
2002 (b)	42,298	248.8	199.0	-2,104
2003	53,669	248.8	165.8	-4,450
2004	60,728	248.8	165.8	-5,035
2005	72,911	248.8	149.3	-7,255
2006	65,389	248.8	149.3	-6,506
2007 (a)	1,783	248.8	325.0	136
2007 (b)	4,006	248.8	341.6	372
2007 (c)	2,279	248.8	340.6	209
2007 (d)	277	248.8	313.1	18

Source: Office of Grains and Beetroot - Ministry of Economy and Trade

B.2 – Imported Wheat

GoL opted for subsidizing imported wheat from August 2007 to November 2008 as a measure to face the international food crisis which resulted in significant increases in wheat prices. The subsidy included one type of Arabic bread which is commonly used in dietary systems in Lebanon by most socio-economic classes of society among them a predominant majority of the poor.

The aim of the subsidy was to fix both the price and weight of the Arabic bread at 1,500 LBP (approximately 1 US$) per 1,120 grams. The mechanism of the subsidy consisted of having the OGBS import directly wheat and selling it to mills at pre-agreed subsidized prices. In general, these prices were fluctuating on a monthly basis.

The total amount of the subsidy reached US$62.3 million during the entire period (Aug 2007 to Nov 2008). The average subsidy amounted to US$100 (for Aug-Sep-Nov) and US$150 (for Oct-Nov-Dec) per ton of imported wheat used to produce flour for Arabic bread. Detailed information on quantities and subsidies at various timing exist, however they are not included in this note (but could be utilized later on if needed).

III. Council of Development and Reconstruction (CDR)

Below are tables indicating spending on agriculture and irrigation done by CDR. These are predominantly donor funded projects (77 percent of total) and are an aggregate of the last 15 years. Unfortunately no yearly data was provided.

Contracts in preparation amount to US$321.6 million out of which 82 percent are foreign finance. This foreign financing is equivalent to around US$263.6 million. It should be noted that most of these projects are still in design phase and indicative starting dates are set for 2008, 2009 and 2010.

CDR Spending (1992-2007)	*Million US$*	*Percentage*
Planned Spending	110.2	100
o/w Foreign Funding	84.4	77
Completed	91.5	83
In progress	18.6	17

CDR Spending 1992-2007	*Completed Projects*	
	Million US$	*Percentage*
1) Agriculture	18.1	19.8
Technical Assistance	12.5	69.1
Capital Investment	5.6	30.9
2) Irrigation	73.4	80.2
Technical Assistance	1.8	2.5
Capital Investment	71.6	97.5
Total of Sectors	91.5	100

Agriculture (Million US$)	*TA*	*Investment*	*Total*
Consultancy work	12	0.6	12.6
Physical Work	0.5	5	5.5
Share of total			
Consultancy work	0.96	0.11	0.70
Physical Work	0.04	0.89	0.30

Irrigation (Million US$)	*TA*	*Investment*	*Total*
Consultancy work	0.9	9.6	10.5
Physical Work	0.9	61.9	62.8
Share of total			
Consultancy work	0.50	0.13	0.14
Physical Work	0.50	0.86	0.86

IV. Ministry of Finance

The Ministry of Finance is involved in the agriculture sector through two channels:

(i) In the form of forgone revenues due to the tobacco subsidy. The tobacco subsidy in Lebanon is a price support program paid directly from import taxes received from the Regie Libanaise des Tabacs et Tombacs, a private company monopoly which reports to MoF[21]. In 2008, the subsidy reached US$51.1 million.

(ii) In the form of subsidy on credit interest rates. In 2006, the Ministry of Finance started subsidizing the interest rate of a credit program for productive sectors administered by the Central Bank of Lebanon (BDL). Estimates for the subsidy paid for agriculture related projects are the following:

Million US$	2006	2007	2008
Interest Subsidy on Agriculture Related Projects	4.0	4.6	5.3

Note: MoF figures, estimated based on the share of loans to the agriculture sector out of total loans

[21] Refer to the note "Decoupling Income Support from Tobacco Production in Lebanon: Challenges and Opportunities" for details on the tobacco subsidy and thr price support program.