Agricultural and food trade policy in Lebanon:
Overview and economic analysis

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Summary

Agriculture is in many ways at a crossroads in Lebanon, seemingly able to gradually extinguish itself or instead, revive and take shape as a vibrant sector of the economy, providing economic opportunities and contributing to food security. The objective of this paper is to better understand the role that agricultural and food trade policy may have played in creating the current situation, and point to options for improving it. An brief overview indicates that Lebanon’s agricultural policy is carried out in a highly fragmented, disconnected manner and as a low priority.

Apart from agricultural calendars and periodic and specific high tariffs, Lebanon is taking part in the global movement toward freer trade. Many trade restrictions, including those on agricultural and processed foods, are gradually disappearing and bilateral and multilateral agreements are being ratified. Adhesion to free trade agreements has put pressure on Lebanon to decrease tariffs and subsidies, limiting possibilities to counteract the effects of its overvalued currency. Lebanon’s agricultural trade balance is also increasingly deteriorating as free trade increases without substantial support for improved production.

Short case studies of wheat and sugar, the two subsidized food crops, conclude that there are societal costs to the price support programs, and yet they are not part of an overall strategy for agricultural development nor do they have a particular economic, social or environmental justification for existing.

The Ministry of Agriculture’s 2004 Agricultural Development Strategy is an important step in the restructuring, focusing and prioritizing of agricultural policy in Lebanon, which would allow rational and decisions to be made for a sector which has enormous potential because of its geographic and climatic position but has been underutilized and undermined.
Introduction

Agriculture in Lebanon is characterized by the prevalence of traditional cropping purposes. Urbanization is rapidly encroaching on rural areas including fertile land, even though substantial areas are unused or abandoned. Although the role of agriculture in the country’s economy is declining, it still occupies an important place, generating 6.7% of Lebanon’s Gross Domestic Product in 2004 and employing roughly 9% of the labour force in 2003 (MOA 2004; CDR 2002, personal communication H. Nasrallah MOA, April 2006).

Lebanon’s Mediterranean climate allows for a great diversity of production: agro climatic conditions range from sub-tropical to temperate zones with cold winters (MAO 2004). Water is still relatively abundant and more than half of useable agricultural land is irrigated (MOA 2004). But the country produces just 20% of its food requirements, importing the balance mainly from neighboring countries and making it one of the least agriculturally self-sufficient countries in the world (MOA 2005, Gambill 2003). The main crops are cereals, fruits and vegetables, primarily tomatoes, potatoes, olives, wheat, cucumbers, oranges, apples and grapes (FAO 2004). Reductions in cereal production in the 1970s and 1980s were compensated for by increases in perennial crops particularly olive production, though at present orchards are aging and in need of renewal (FAOSTAT data, personal communication H. Nasrallah MOA, April 2006). During Lebanon’s 17-year civil war from 1975 to 1992, crop and livestock production was severely disrupted. Major destruction of infrastructure such as roads and irrigation systems as well as large areas planted with land mines further undermined the country’s agricultural system.

The high cost of domestic inputs (land, labour and capital) in Lebanon’s service-based economy has led to ongoing abandonment of agricultural land, affecting 20% of usable agricultural land and contributing to the aging farm population (MOA 2004). Opaque and obsolete organization of commercial channels and opportunistic behaviour of transformers and merchants makes for a poor and risky environment for farmers, who are thus not encouraged to invest in or modernize their operations (MOA 2004). Lebanon’s macroeconomic situation is also not advantageous for agriculture: the country is heavily indebted with debt servicing absorbing roughly half its budget: the debt to GDP ratio is 170% (CIA 2006). Capital from outside the country (principally from the large global Lebanese diaspora) destabilizes the financial situation, resulting in an overvalued exchange rate which decreases the competitiveness of agricultural products on both internal and external markets (MOA 2004).

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1 Average parcel size is 0.5 hectares, although farms of more than 50 hectares make up one-third of the usable agricultural land (MOA 2004)
2 250,000 ha is currently under production, in addition to 100,000 ha of land abandoned due to disinterest and land mines. Another roughly 100,000 ha of rocky or hilly land could be put into production (personal communication, H. Nasrallah MOA, April 2006)
Agriculture is in many ways at a crossroads in Lebanon, seemingly able to gradually extinguish itself or instead, revive and take shape as a vibrant sector of the economy, providing economic opportunities and contributing to food security. The objective of this paper is to better understand the role that Lebanon’s agricultural policy may have played in creating the current situation, and point out some options for improving it. The paper aims to provide an overview of Lebanon’s agricultural and food trade policy and an analysis of some implications of these policies. Short case studies of wheat and sugar, the two most heavily subsidized food crops, are provided as examples with theoretical and empirical analyses.

PART I: POLICY SURVEY
1.1 Agricultural policy
In Lebanon, agricultural policy is carried out in a highly fragmented, disconnected manner and as a low priority. A wheat and sugar beets subsidy is managed by the Directorate General of Cereals and Sugar Beets at the Ministry of Economy and Trade and a tobacco subsidy program is run by the Régie des Tabacs at the Ministry of Finance. The Ministry of Agriculture is responsible for other crops, agricultural services and cooperatives. It also supervises the Lebanese Agricultural Research Institute and the Green Plan, which helps rehabilitate lands and rural roads neglected or destroyed during the war (MOA,2004; MOA, 2003). An export-promotion program is managed by the paragovernmental body Investment Development Authority of Lebanon spell out and the Council for Development and Reconstruction manages infrastructure projects, including irrigation and mobilizes foreign funding.

In 2002, a total of 98.3 billion LBP (65.5 million US$) was spent on agriculture, of which 59.5 billion LBP (39.7 million US $) was spent by the Directorate General of Cereals and Sugar Beets (DGCSB) (MOA 2003). In 2003, only 0.4% of Lebanon’s total government budget was allocated to the Ministry of Agriculture: 34 billion LBP (22.7 million US$). Even when all programs benefiting the agriculture sector are combined, the total represents less than one percent of government budgets, very low compared with spendings of neighbouring countries³. Meanwhile, financing of rural development projects by various international donors (such as the European Union, Japan, several Arab countries and US-based organizations funded by the US Agency for International Development), including significant agricultural development components, totals roughly 50 million US$ per year (MOA 2003).

³ For example in the 1980s, Syria was spending approximately 20% of government budgets on agriculture (US Department of the Army Country Studies www.countrystudies.us/Syria/42.htm)
Recent moves to cut subsidies are driven partly by chronic budget deficits and public debt but also by past inefficiencies, excessive red tape and political influence (MOA 2003). The low priority of agricultural spending in Lebanon can also partly be explained by the lack of a strategy for developing the sector; a comprehensive strategy was only adopted in 2004. This agricultural development strategy is part of an FAO-supported agricultural survey and was preceded by several background studies as well as consultations with stakeholders in the public and private sector (MOA 2004).

1.2 Overview of agricultural programs and subsidies in Lebanon

**Input subsidies:** Numerous irrigation projects are financed by the government and international donors, although costs to farmers are still high relative to other countries. Pesticides are periodically subsidized for strategic crops and in reaction to pest outbreaks – in the past this has included olives and wheat. Certified plants seeds produced by the Lebanese Agricultural Research Institute are sold to farmers at subsidized prices. Amount of the subsidies under its jurisdiction are given for 2001-2003 in the Ministry of Agriculture budget (see attached).

**Agricultural credit:** Lebanon is one of the few developing countries in the world with no functioning, specialized credit system for the agricultural sector. Loans from banks are mainly short term, relatively expensive and dependant on good management training and collateral, neither of which many farmers possess. Thus less than 1.5% of commercial banks’ loans to the private sector go to agricultural activities and those who do receive them are mainly owners of large farms and agro-food industrial facilities (MOA 2003).

**Tax exemption:** There are tax exemptions on agricultural buildings and land, and 10-year tax exemptions on agricultural industries. Officially, the entire agricultural sector is exempted from taxes, but in fact farmers pay many indirect taxes (such as on fuels, raw materials and inputs, transportation equipment and employee wages) because they have no legal status and farm units are not registered as economic entities (MOA 2003). This underlines a classic difficulty in developing Lebanon’s agricultural policy: defining who is a farmer. While officially there are 200 000 farmers in the country, a recent study by the Ministry of Agriculture determined that only 30 000 to 40 000 farmers earn enough from their farms to live over the poverty line (MOA 2004). The Ministry of Agriculture plans to focus future policy on these farmers.

**Subsidized food purchases:** Agricultural products are periodically bought for the army at heavily subsidized prices. For example, in 2003, the government spent 10 billion Lebanese Lira (LL) on oil and apples for the army, while in comparison, the total budget of the Minister of Agriculture and affiliated units that year was 34 billion LL (MOA 2003).
Price supports: A 1959 law supports government subsidization of wheat, barley, corn and sugar beet production. In recent years, only the wheat and sugar subsidy have continued (see case studies below), in addition to a subsidy for tobacco farmers. Periodically, bakeries have been given subsidized fuel to encourage them to continue supplying bread: this occurred once in 1981 and again in 1991 (personal communication, A. Khoury, May 2005).

Export subsidies: Export Plus is a $33 million program run by the Investment Development Authority of Lebanon with the objective of increasing exports to both new and traditional markets; controlling the quality of agricultural products to ensure compliance with international standards; and transferring knowledge to farmers and exporters. Because subsidies are for transportation and not production costs, Export Plus is apparently WTO compliant (IDAL 2006). The program contributes up to 100$ per ton to cover the cost of shipping produce overseas and increased exports by 15% the first year and 5% the following year (IDAL, 2006). Farmers have complained however, that traders and other intermediaries are the main beneficiaries of the program (Gambill, 2003).

1.3 Trade policy
Lebanon has been reputed as a nation of traders since the time of the Phoenicians, strategically placed as it is on the Mediterranean Sea between the Far East and Europe. Government policy has historically been focused on the open market, demonstrating only mild interest in national food security in comparison to neighbours such as Egypt and Syria. This policy, combined with the low prioritization given to agriculture, has resulted in a situation where Lebanon now imports 1.3 billion $ of food a year, compared to a GDP of $12.7 billion (FAO STATS, 2004)

There have been periodic attempts since the 1950s to protect the agricultural sector from certain imports, using a combination of import bans, quotas, licenses and the use of an Agricultural Calendar. This calendar bans imports of fresh fruits and vegetables, processed foods (including olive oil, vinegar, canned tomatoes...) and animal products (milk, yogurt, eggs and poultry) during certain periods of the year. The Agricultural Calendar is revised yearly by the Cabinet upon suggestions of the Minister of Agriculture and Minister of Industry (Khoury 2001).

Customs duties have in the past represented Lebanon’s main source of public funds, counting for approximately 50% of government revenues in 2000 and 2001 (MOA 2003). In October 1997, a range of new tariffs or bans on food imports were imposed with the objective of cutting the large trade deficit and increasing revenue; the move also aimed to incite farmers in the Beqaa Valley (a fertile plain in the East of Lebanon, the major agricultural region in the country) to abandon their
lucrative production of hashish and opium poppies (Gambill, 2003). The agriculture minister "drew up plans to ban or tax all the imported food that he believes could be produced locally" (Economist, 1997) and certain products were taxed at over 100%. But following pressure from the EU and other trading partners, in 1999 and 2000 the government replaced import bans and administrative regulations except phytosanitary and health measures by import tariffs (MEED, 2001). These tariffs were to be reduced from an average of 20% to an average of 15% while rates over 100% were reduced to 70% (Industry Canada, 2006).

Duties are applied to most agricultural imports with the important exception of those under trade agreements discussed above, and tariffs range from 0 to 80% with the majority being levied at 5-10%. Agricultural products with a 70% tariff include chicken, yogurt, cheese, honey and various fruits and vegetables: bananas, potatoes, tomatoes and olives (Lebanese Customs Authority 2006). Frequent smuggling and customs reclassification biased by lobbying and bribing occurs (MOA 2003).

In practice, even before many of these tariff reductions were implemented, there was already considerable free movement of agricultural commodities from neighbouring countries with low input costs and greater government subsidies⁴, notably Syria and Jordan, making it difficult for domestic producers to compete. Syria’s military and political control of Lebanon since its troops entered the country in 1976 was complemented by an economic occupation including the agricultural sector. After the 1990 when the Syrian presence in Lebanon intensified, Syrian agricultural products flooded the Lebanese markets while tariffs or duties were simply ignored. Meanwhile, Damascus imposed a range of restrictions on Lebanese agricultural produce into Syria, including products such as bananas which are not even produced in Syria. Thus between 1992 and 1997, Syria’s agricultural exports to Lebanon totaled 497 million US dollars while Lebanon exported less than $30 million worth of food to Syria (Gambill, 2003).

After the 1997 bans on many agricultural imports, the flood of Syrian goods subsided, apparently as part of Syria's bid to be removed from the US State Department’s list of drug-producing countries. After both Syria and Lebanon were removed from the list, the restrictions were lifted as mentioned above. A bilateral trade agreement signed in 1999 gave free passage to Syrian exports of all but 17 agricultural products and reduction of remaining tariffs by 50% the first year and 10% for following 5 years (Gambill, 2003; UNCTAD, 2006).

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⁴ One example is irrigation: a 1997 UN survey reported that Syrian farmers pay an annual flat rate of 26$ per hectare to their government while Lebanese producers pay between 40 and 100$ per hectare. UN FAO, Land and Water Development division, Syriai Country profile, 1997, Lebanon Country Profile 1997, quoted in Gambill 2003.
Agricultural calendars and periodic, specific high tariffs aside, Lebanon is taking part in the global movement toward freer trade. Many trade restrictions, including those on agricultural and processed foods, are gradually disappearing. Lebanon has signed several bilateral agreements including ones with Syria, Kuwait and Egypt and the United Arab Emirates, helping a regional Arab market to emerge (UNCTAD 2000, MOA 2003). It has signed on to the Greater Arab Free Trade Agreement under the Arab League, which abolished agricultural tariffs in 2005 and aims to reduce non-tariff barriers to intra-Arab trade (EU, 2006), even though there are unofficial exceptions to the zero-tariff rate (personal communication, H. Nasrallah, MOA April 2006). Through the Euro-Mediterranean partnership agreement, an agreement with the EU was ratified in 2003 to gradually phase out tariff and non-tariff barriers in order to ultimately create a Mediterranean free-trade zone (UNCTAD 2000). Finally, Lebanon has observer status at the World Trade Organization and is negotiating access; progress was however slowed by the assassination of the Prime Minister in 2005 and its aftermath (MOA 2003, 2004)

PART TWO: CASE STUDIES

2.1 Wheat

The case of wheat is of particular interest as it was and still is the number one source of food calories for the Lebanese. In 1961, the per capita supply of wheat represented 46.5% of the caloric intake according to FAO food balance sheets although by the year 2002, this percentage had fallen to 30% (FAO, 2005). The decrease in volume consumed was accompanied by significant changes in the type and quality of wheat eaten. In 1950, when Lebanon’s population was predominantly rural (88% according to FAO statistics), much of the wheat would have been consumed from local production in the form of bread made from hard wheat or bulghur (Cowan et al, 1963, Cowan, 1965). In 2000, with rural Lebanon making up just 10% of the population, the majority of wheat consumed was imported soft wheat to be made into flat arabic bread or khubz frengy (leavened “foreign bread”), processed to achieve a lighter texture but thereby losing much of its nutritional value.

Lebanon’s fertile Beqaa Valley was once considered to be the Roman’s silo, so productive and fertile was it. Local production is primarily hard wheat, although with increases in irrigation, soft wheat production is also rising: one quarter of cereal area is currently under irrigation (MOA, 2005). Per capita wheat production decreased overall from 1966 to 1986, after which it has risen to exceed 1960s levels (see attached Production per Capita chart). The overall increase can be attributed partly to increased areas under irrigation as well as improved seed varieties. Although productivity is clearly lower than industrialized countries such as Italy, Lebanon’s yield per hectare compares favorably with its closest neighbours Jordan and Syria (see attached Yield Comparison chart). The most recent spike in wheat production coincides with removal of the
sugar subsidy in 2001 (see below). Production dips in the late 70s and early 80s coincide roughly with the Lebanese civil war which lasted from 1975 to 1992. Econometric analysis beyond the scope of this paper would be required to better evaluate correlation between these factors and the changes observed.

Increases in wheat productivity have been accompanied by ongoing abandoning of land in cereal production. Eighty percent of agricultural lands abandoned more than 30 years ago were previously planted with grain, while roughly 50% of lands over the past ten years had been producing grain (MOA 2005). The majority of local wheat (65%) is sold through the subsidized system run by the Directorate General of Cereals and Sugar Beet (see below) while the remainder goes to self-consumption, seed reserves, direct sales and home transformation (MOA 2005).

2.1.1. Wheat subsidies
Wheat has been subsidized by the Directorate General of Cereals and Sugar Beets (DGCSB) since 1963. For many years, wheat was bought by the DGCSB and resold to millers, incurring the expense of purchasing at a higher price than they sold as well as storage and transport fees (Bisat, 1986). From 1997 to 2001, the wheat subsidy took the form of obliging flour mills to buy a portion (25%) of local wheat via the government, in order to obtain an import license for wheat from other countries. The mills subsequently obtained the right to import without this restriction as long as they collectively purchased the entire Lebanese wheat production at a fixed sale price. This subsidy therefore does not have a negative fiscal impact although it raises the price of wheat inputs for millers and potentially the prices for consumers (MOA; personal communication Antoine Khoury, DGCSB).

Wheat is bought from producers at a higher than global market prices: in recent years, the price has been approximately 250$ per ton. A maximum of 5 tons per hectare is purchased to minimize possibility of fraud (personal communication, M. Zein al Din and website, DGCSB, April 2006). The government then resells the wheat to millers at the global price or slightly less (recently the price has been approximately 150$ per ton). Pressure is exerted on the millers to accept this wheat as their flour contains only 5-15% hard wheat, and the quality of local wheat is frequently poor for bread production (personal communication A. Khoury, DGCSB May 2005, MOA 2005). The mills export the surplus hard wheat with exports going mainly to other Arab countries (Liberia, Kuwait, United Arab Emirates...) followed by EU countries (France, UK...) (Lebanese Customs Authority 2006).
Hard Wheat Market - Lebanon
The above model for Lebanon’s hard wheat market assumes a relatively inelastic demand (as is the case for food generally in developing countries) and an elastic supply (in the medium-long run), but is not based on empirical studies of supply and demand and therefore remains theoretical. World wheat prices $P^w$ are lower than the equilibrium price $P^e$ while the subsidized price $P^s$ is roughly 40% higher than the world price. Welfare analysis shows that producers gain substantially under the program: producer surplus increases from the area of the small yellow triangle to triangle $S^o bc$ with $S^o$ the price at which zero quantity will be supplied. Program cost, either to the government or, in the present case, to millers, is the rectangle $P^w P^s cd$. Since the market is open and there is currently no tariff on imports, consumers continue to buy at the world price and consumer surplus remains the same. Deadweight loss is therefore: 
Program cost – Producer surplus – Consumer surplus 
$= P^w P^s cd – abce = cde$

While world wheat prices have been low and decreasing over the past ten years, the subsidy paid to wheat farmers has remained at a relatively constant higher level (see Subsidized and World Prices chart). Sales by farmers under the program have been on the increase, with a substantial jump in 2001 coinciding with the elimination of the sugar beet subsidy (see accompanying Quantity Purchased from Farmers chart): many farmers switched to wheat production at this time (personal communication, M. Zein al Din, DGCSB April 2006).

2.1.2 Wheat Imports and donations
Overarching the variability observed in Lebanon’s wheat production is the fact that the country is a large net importer of wheat and has been for at least the past 40 years (see attached Wheat

5 It is not clear whether there is a limit on payments per hectare for the wheat subsidy similar to that imposed on sugar farmers.
Trade table): imports covered 75% of wheat needs in 2002 (MOA 2005). Imports of soft wheat are primarily from (in order of importance) Russia and Eastern Europe, the US, Australia and the UK (Lebanese Customs Authority 2006). The Ministry of Economy and Trade issues import licenses for wheat and its by-products and until recently controlled the amounts imported. Import tariffs on wheat were approximately 5-6% until 1991, when the private sector was allowed to begin importing wheat directly and tariffs were eliminated (personal communication, M. Zein al Din, DGCSB April 2006).

For the past four years (2002-2006), the USDA has given wheat donations to international, US-based organizations with offices in Lebanon. The organizations sell the wheat and use proceeds to operate development projects in the country under a monetization program. For example, Mercy Corps received 40,000 tons of wheat valued at 5.5 million in 2002, using proceeds for projects focused on agricultural development. In 2005, the International Orthodox Christian Charity received 10,000 tons which sold for 2.3 million dollars, contributing to funding a nutrition education project in poor areas of Lebanon (Mercy Corps 2002; US Embassy 2006; M. Zein al Din DGCSB, April 2006).

Analysis of the monetization program by Mercy Corps states that “no negative impact on local production is expected to result from the sale of wheat under this program” given that Lebanon does not produce significant amounts of wheat, that millers buy all local wheat and that substantial wheat imports already occur (Mercy Corps, 2004). The program does, however, contribute to the US disposing of excess wheat produced under subsidies, thus pushing world wheat prices down. It also clearly aims to increase market share for its exports, using visibility and contacts from the program to promote “better quality American wheat” (Mercy Corps, 2004).

2.2 Sugar beet
Sugar beet production and transformation, like wheat production, has been subsidized for the past several decades by the Directorate General of Wheat and Sugar Beets. Up until 2001, payments were made to farmer cooperatives and were directed at both production and refining costs. Because sugar beet production is mainly concentrated in southern and eastern Lebanon, where farmers have suffered some of the worst effects of the civil war, ongoing subsidization was justified as a way to help reconstruct the area (note that no subsidies were given between 1985 and 1991 because of the civil war). Cost of the sugar beet subsidy became substantial as farmers increased production in response to support, reaching close to 30 billion LL $ (roughly 20 million US$) per year at the peak in 2000 (Personal communication M. Zein el Din DGCSB April 2006).
Under pressure to end trade-distorting supports, the subsidy was abruptly halted in 2001. Farmers dependent on the subsidy were hard hit by the policy change, given that no program had been put in place to help them develop alternative markets although a compensation was paid for 2001 (Personal communication A. Khoury, May 2005). Cost of leasing land was expected to fall following elimination of the subsidies but did not, such that production costs remained high for farmers.

Support was reinstated in 2004, but under different conditions. A subsidy is provided only to small farmers with less than 50 dunums (50,000 square meters) and given directly to the factories as a measure to prevent fraud. (Personal communication M. Zein el Din DGCSB, April 2006; A. Khoury May 2005). These new measures cost the government significantly less (approximately 2 million US$ at present) and are scheduled to be phased out in coming years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual or planned subsidy (Lebanese pound per dunum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>466 000</td>
</tr>
<tr>
<td>2006</td>
<td>311 000</td>
</tr>
<tr>
<td>2007</td>
<td>155 000</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
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</tbody>
</table>

Source: Personal communication M. Zein el Din DGCSB, April 2006

As illustrated by the charts of sugar and sugar beet production and government subsidies (see attached), production levels directly mirror the years the subsidy was provided. Unlike the case of wheat where there is a schism between local production type (hard wheat) and demand (soft), for sugar, a direct link can be seen between production levels and imports: when local production rises, imports decrease as seen between 1992 and 2000. Imports of sugar are subject to a 5% tariff\(^6\), low enough to have seemingly little effect on import levels.

**Conclusion**

Agricultural and food trade policy in Lebanon in recent decades has done little to improve the situation of an agricultural sector weakened by years of civil war and occupation. While other sectors of the economy have received considerable financial resources for reconstruction (contributing to the countries massive debt load), agriculture has benefited from little aid or even attention from the national government.

A large portion of government funds (and private subsidization, in the case of wheat) which are attributed to agriculture go to the specific crops of wheat, sugar and tobacco. The fact that there

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\(^6\) There is some confusion on this point as I was informed by the DGCSB (personal communication M. Zein al Din April 2006) that the tariffs have been reduced to zero, but the site for the customs authority lists a 5% customs duty ([http://www.customs.gov.lb/customs/tariffs/national/tariff1.asp](http://www.customs.gov.lb/customs/tariffs/national/tariff1.asp) consulted April 16 2006).
are no specific criteria for eligibility for these subsidies indicates that they are not part of an overall strategy for agricultural development. The price supports also do not particularly encourage farmers to invest in the productive capacities of their farms but act instead as short term solutions to a problem (MOA 2003).

A fundamental problem with Lebanon’s price support is that there seems to be no solid justification for favouring the subsidized crops over others. While there is clearly a societal cost to price support programs, whether it be government expenses or increased costs to transformers or consumers, a certain loss of economic efficiency may be a reasonable price to pay for transferring income to the rural poor or creating greater food self-sufficiency, should those be societal priorities. However, a decision to provide price supports should be made in the context of a broader agricultural policy and evaluated to ensure that the targeted crops are economically, socially or environmentally logical ones. One such economic analysis already available is the Policy Analysis Matrix used by the Economic and Social Commission of Western Asia to compare the domestic resource cost and comparative advantage of different agricultural crops (Osman, 2004). If subsidies to specific crops were lifted, the budgets thereby freed could be transferred to other priorities such as the subsidization of infrastructure development and the development of productive assets on farms (MOA 2003).

Adhesion to free trade agreements has put pressure on Lebanon to decrease tariffs and subsidies, limiting possibilities to counteract the effects of its overvalued currency. Lebanon’s agricultural trade balance is also increasingly deteriorating as free trade increases without substantial support for improved production (MOA 2004). While a Value Added Tax (VAT) was introduced in 2002 to help compensate for progressive lifting of tariffs, there is little hope for increased agriculture budgets in the current economic situation and high level of public debt. However, the Ministry of Agriculture is proposing the introduction of two measures to increase revenues for agricultural development while only slightly impacting consumers and tax-payers (MOA 2004):

1) a property tax on agricultural land, which would serve to clarify the ownership of land (currently many parcels are under ownership dispute) as well as incite landowners to rent out or sell unused parcels;

2) specific taxes on imported products for which Lebanon is deficient and productivity gains are possible, for example on imports of soft wheat. Such measures are WTO-compliant to the extent that the funds collected are used for national program to develop productivity of the taxed item; in the case of wheat, irrigation of soft wheat could be improved and increased.
The Ministry of Agriculture’s 2004 Agricultural Development Strategy is an important step in the restructuring, focusing and prioritizing of agricultural policy in Lebanon, which would allow rational decisions to be made for a sector which has enormous potential because of its geographic and climatic position but has been underutilized and undermined.
**Wheat Area, Yield, Production - Lebanon**

Year | Area Harv (Ha) | Yield (Hg/Ha) | Production (Mt)
--- | --- | --- | ---
1961 | 5,000 | 10,000 | 15,000
1965 | 20,000 | 25,000 | 30,000
1969 | 30,000 | 35,000 | 40,000
1973 | 40,000 | 45,000 | 50,000
1977 | 50,000 | 55,000 | 60,000
1981 | 60,000 | 65,000 | 70,000
1985 | 70,000 | 75,000 | 80,000
1989 | 80,000 | 85,000 | 90,000
1993 | 90,000 | 95,000 | 100,000
1997 | 100,000 | 105,000 | 110,000
2001 | 110,000 | 115,000 | 120,000
2005 | 120,000 | 125,000 | 130,000

Source: FAO Stats (Agricultural Production, Crops Primary), last updated January 24, 2006.

**Yield Comparison - Wheat**

Year | Italy | Jordan | Lebanon | Syrian Arab Republic
--- | --- | --- | --- | ---
1961 | 5,000 | 10,000 | 15,000 | 20,000
1965 | 20,000 | 25,000 | 30,000 | 35,000
1969 | 30,000 | 35,000 | 40,000 | 45,000
1973 | 40,000 | 45,000 | 50,000 | 55,000
1977 | 50,000 | 55,000 | 60,000 | 65,000
1981 | 60,000 | 65,000 | 70,000 | 75,000
1985 | 70,000 | 75,000 | 80,000 | 85,000
1989 | 80,000 | 85,000 | 90,000 | 95,000
1993 | 90,000 | 95,000 | 100,000 | 105,000
1997 | 100,000 | 105,000 | 110,000 | 115,000
2001 | 110,000 | 115,000 | 120,000 | 125,000
2005 | 120,000 | 125,000 | 130,000 | 135,000
Wheat Trade - Lebanon

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (Mt / per 1000 capita)</th>
<th>Imports (Mt / per 1000 capita)</th>
<th>Exports (Mt / per 1000 capita)</th>
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<tr>
<td>1993</td>
<td>45</td>
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<td>0</td>
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</tbody>
</table>

Wheat Production per Capita - Lebanon


Source: FAO Stats (Commodity Balances Crops Primary Equivalent), last updated March 3, 2006

Production (Mt / per 1000 capita)
Subsidized and World Wheat Prices - Lebanon

<table>
<thead>
<tr>
<th>Year</th>
<th>Subsidized Price (US$)</th>
<th>International Price (US$)</th>
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<tbody>
<tr>
<td>1995</td>
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<td>2005</td>
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</table>

Source: Directorate General of Cereals and Sugar Beet Website, Ministry of Economy and Trade, Lebanon, consulted April 10 2006

Quantity purchased from farmers

<table>
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<th>Year</th>
<th>Quantity (tons)</th>
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</tbody>
</table>

Source: Directorate General of Cereals and Sugar Beet Website, Ministry of Economy and Trade, Lebanon, consulted April 10 2006
Sugarbeet - Lebanon

Source: FAO Stats (Commodity Balances: Crops Primary Equivalent), last updated March 3, 2006

Refined Sugar - Lebanon

Source: FAO Stats (Commodity Balances: Crops Primary Equivalent), last updated March 3, 2006
Govt Subsidy Spending, Sugar

Production Sugar & Sugar Beet

Year

Govt Subsidy Spending
(million LL)

Net Prod’n Sugar Beet
(Ton)

Net Prod’n Sugar (Ton)
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**Abbreviations**

DGCSB - Directorate General of Cereals and Sugar Beet, Ministry of Economy and Trade
MOA – Ministry of Agriculture