# Annual report 2005

Lebanon

# **Agri.Med**

# Agriculture, fishery, food and sustainable rural development in the Mediterranean region

Annual Report 2005 Lebanon

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#### 1 Introduction

This report was prepared for the CIHEAM in a contribution for the publication of its sixth edition of the 2004 Annual Report on the "Agro-Food Sector and Development of the Mediterranean Countries". It represents an update on the previous national reports of 2001, 2002 and 2003 (Hamze and Abul Khoudoud 2001, 2002 and 2003).

The main source of official statistics used herewith were from the Higher Customs Council at the Ministry of Finance (MOF), the Trade Information Center at the Ministry of Economy and Trade (MET), the Central Administration of Statistics (CAS), the Banque Du Liban (BDL), Investment Development Authority of Lebanon (IDAL), and the Ministry of Agriculture (MOA) and FAO joint "Agricultural Census Project". The Data mainly covers the years 2001, 2002 and 2003.

Based on relevant available works done on the issue, the report provides an overview with some analysis when applicable on the agro-food sector in 4 parts: (A) the National and the International macro-economic perspectives vis-a-vis the agricultural sector and the contribution of this sector to the overall economy; (B) the agricultural production, consumption and foreign trade; and (C) the fishery sector; and (D) the main agro-food policies in Lebanon.

# 2 The Macro-economic Setting

# 2.1 - Evolution and perspectives of the national economy during the years 2003-2004

The Lebanese economy kept up its moderate growth performance during the first quarter of 2004, with real GDP growth slightly above the 2% threshold. The revival in economic activity, which started in early 2003, continued during the fourth quarter of the year and involved the main economic sectors: exports, imports, tourism, industry and trade. This was coupled with continued capital inflows, and the balance of payments recorded a cumulative annual surplus of US \$ 3 386,0 million.

The realization of high economic growth remains at this stage hampered by the erratic local political conditions, the continuing regional uncertainties, the fiscal consolidation lags, and the rigidity in structural and administrative reforms at large.

The growth performance over the post-war era could be actually divided into four major sequences within Lebanon's business cycle, namely an early boom, followed by a slowdown, then a recession and most recently a modest recovery.

Economic conditions are actually underlined by a disparity between real and monetary sectors, a situation further bolstered over the post-Paris II era.

Both imports and exports have increased significantly reflecting an increasing domestic demand on the one hand, and fruitful market diversification efforts by exporters on the other hand, especially with the opening-up of the Iraq market to Lebanese exports.

The rise in imports of 14,5% within the context of a more important rise in exports of 34,6%, resulted in an improvement in the export-to-import coverage ratio from 21,2% during the first quarter of 2003 to 24,9% over the corresponding period in 2004, a ten-year record high.

The European Union remained the main source of Lebanese imports with an aggregate share of 45,2%. As for individual countries Italy is the lead followed by France, Germany and China. Exports on the other hand are mainly to the Arab countries.

The agricultural and industrial sectors witnessed an improvement in activity over the first quarter of 2004, while still operating way below their potential output. Agricultural and industrial exports have increased by an important 34,6% during the first quarter of 2004 relative to the corresponding quarter in 2003, reaching US\$ 471 million, and ensuring a positive contribution to growth despite the weakness of their share in aggregate demand.

#### 2.2 - Evolution of the agricultural aggregates in the economy

In the year 2003, GDP was estimated at US\$ 3 710 million against US\$ 17 339,1 in the year 2002, where still the services sector accounts for the bulk of Lebanon's economy (60-70%) whereas the industry sector is at around 18%.

Table 1. Estimates of GDP for the years 2001-2004

	2001	2002	2003	2004
GDP (at market prices) in Million US\$	16 708,0	17 339,1	19 000,0	
Growth of real GDP	1,5	2,0	2,2	2,2
Growth of nominal GDP	1,5	2,0	4,0	4,0

Source: MOF (2002) and Audi Bank (2004).

No official GDP calculations have been made since 1977. To this effect, and through a technical assistance of INSEE (Institut National de la Statistique et des Etudes Economiques) provided free by the French government, GDP figures were calculated to global standards for the year 1997 (that is to be complemented to cover the years 1998-2002). These accounts were prepared and will be updated to meet the increasingly pressing need of the government to have a tool for evaluating economic and financial policies.

Consequently, MET published the "National Economic Accounts of 1997" (2003). These accounts showed that agricultural GDP contribute by 6,3% of the total GDP with a value added of LBP 1513 billion (Table . However, and over the past years estimates of such figures revealed a range of 8-12% of the total GDP,

Other major findings pertaining to the agro-food sector revealed the following:

- the domestic and external demand in 1997 was estimate at Lebanese Pound (LBP) 35 190 billion of which 70% pertains to the domestic consumption of households;
- the domestic and external demand is 31,55% covered by imports accounting to 46% of GDP;
- further more the overall consumption figure for food, beverages and tobacco represent 26.9% (including the non-resident households or foreigners;
- gross fixed Capital Formation was estimated at LBP 7 146 billion of which LBP 142 billion is generated by the agricultural sector;
- the agricultural value added estimated at LBP 1513 billion breaks down into vegetable production (LBP 1 233 billion) and animal production (LBP 280 billion);
- value added in manufacturing activities (amounting to total of LBP 3 262 billion) reveals a value of LBP 977 billion for food industries.

Table 2. Breakdown of GDP by Sector, 1997

Sector of economic activity	Output	Input	Value added	% of GDP
Agriculture	1 920	407	1 513	6,3
Energy and Water	930	580	350	1,5
Manufacturing	7 002	3 740	3 262	13,5
Construction	4 596	2 340	2 256	9,4
Transport and Communication	1 854	570	1 284	5,3
Housing	2 059	0	2 059	8,5
Other market services	6 571	1 129	5 442	22,6
Trade	6 109	876	5 143	21,3
Non-Market Services	3 992	1 193	2 799	11,6
Total	34 943	10 835	24 108	100.0

Source: MET, 2003.

# 2.3 - The international economic and trade context and its implications to the agricultural sector

In addition to membership in GAFTA since 1997, which is now in its 6th year of tariff dismantling, Lebanon entered into an association Agreement with the EU early in 2002. This agreement is a part into a broader partnership and program of cooperation. Moreover, Lebanon is working on eliminating non-tariff barriers with Arab countries such as Syria, Jordan and the Gulf.

Lebanon signed a number of bilateral agreements with Arab countries (Syria, Jordan, Egypt, Kuwait, UAE).

In February 2003, a memorandum of understanding was signed with the Italian Ministry of Agriculture aiming at creating a "Green corridor" to provide technical support and facilitate the trade of horticultural and processed food products.

Alarming years of entry into free trade period are very close to the most of the signed agreement which present a challenge for the Lebanese produce. As for the GAFTA, free trade zone will be effective as of first of January 2005, free trade with Syria with no tariff will be effective in October 2004, and the EU will be in the year 2008.

Due to many reasons (land fragmentation, lack of financing and credit, high labor and raw material cost, and information gap...) the transition to free trade will be problematic for some crops and animal production. Lack of competitiveness and low productivity will remain low on average and shifting to higher value-added productions will be difficult.

# 2.3.1. - The Euro-Med Association Agreement

Lebanon signed an Interim Agreement in mid 2002 that allow as the immediate implementation of the trade related measures while other countries had to wait about 3 years fore parliamentary.

EU is Lebanon's largest trading partner. About 42% of Lebanese imports originated in the EU and 19% of the Lebanese exports were destined to EU countries A trend that has been observed since the 70's).

The following main special treatments were granted to Lebanon:

- There will be no reduction in custom duties for five years, after which the reduction on European industrial goods will follow a gradual uniform schedule. The five year grace period was only accorded to Lebanon. However, the Lebanese industry will enter EU markets duty free immediately. The end of this grace period was planned to coincide with the entry into force of the GAFTA.
- The reduction of custom duties on EU agricultural imports will not start before the fifth year, and there will be a gradual decrease over 12 years for a large basket
- In terms of agro-industrial products, Lebanon succeeded in separating the agricultural component from the industrial component and Lebanese exports received a 0% tariff on the industrial component when other countries settled for a 30% average.

The association agreement with the EU represents a vital cornerstone in Lebanon's trade liberalization strategy, as well as the WTO accession and the GAFTA. The association agreement serves a catalyst to conduct the required adjustments to the domestic economy that will render Lebanon more competitive. Consequently, Lebanon is expected to develop its past role as being a primary trade center in the region and between the GAFTA and the Euro-Mediterranean Free Trade Area.

The main challenge for Lebanese produces remains in its ability to follow up with the EU and international standards and norms to benefit of the potential markets. This entails as being able to follow up with the capacity of the Lebanese produce in implementing the international and EU standards in quality.

However, Liberalizing trade with EU is expected to facilitate the transfer of new technology and know how as a result of the expected increased inflow of Foreign Direct Investment. Furthermore, the agreement will serve as catalyst to modernize and update the Lebanese trade-related legislation.

#### 2.3.2. - WTO

Lebanon became an observer as of the year 1999. A national committee for the preparation of Lebanon accession to WTO was formed. A memorandum of foreign trade regime including all information related to trade policies, subsidies, laws and regulations was prepared and a working party lead by France are formed. An accession master plan was formulated that sets a timetable for policy changes, amendment of existing laws and cooperation amongst various ministries and institutions. Further-

more, technical support from international organization is outlined. An enquiry point for SPS was set within MOA was as the national authority for TBT was set within LIBNOR.

The trade agreement is being underpinned by an updating of legislation, including WTO compatible customs law that came into effect in December 2000 and trade liberalization measures including the introduction of an open sky policy in late 2000, liberalization of oil products in early 2002 and the planned liberalization of pharmaceutical imports and elimination of exclusive agencies for which draft laws are now in parliament. Accordingly 83% of the imports have a tariff of 0-5%.

Further legislation now under preparation includes a competition law, a law on licensing procedures to streamline trade licensing and abolish ad-hoc administrative requirements, a consumer protection law, and further legislation required in connection with WTO accession.

### 2.3.3. - GAFTA

Main provisions of GAFTA, are summarized by MET in the following box below.

Gradual reduction in tariff rates, fees, and taxes with similar implications at  $\epsilon$  1 annual rate of 10% starting 1/1/1998 and based upon rates effective January 1st 1998.

Products that are forbidden (to be traded) for religious, environmental, ecurity, and health reasons are exempted from the Execution Program of GAFTA. These products will be subjected to applicable national laws.

Removal of all non-trade barriers (administrative, quotas, and monetary)

Application of the "Agricultural Calendar" given the following conditions:

- maximum of ten products to be included on the list per country;
- the maximum time allowed for a listed product to remain on the calenda is 7 months (per year) with a maximum of 45 months in total for all listed products

The Agricultural Calendar does not authorize prohibitions. Products included in the calendar are allowed to enter, however they do not benefit from the gradull reductions in tariff rates during specific time periods. Note that in other periods, the same listed products would be subjected to the lower rates.

The possibility of exempting a number of industrial products from tle Execution Program of GAFTA, subject to certain rules and conditions and based upon a decision of the Social and Economic Council of the Arab League.

Recently a number of amendments to the implementation program were among which, changes to the agricultural calendar whereby the maximum in number of products listed was reduced from 10 to 9 and the maximum number of months permitted for all listed products was reduced from 45 to 35 months.

By the end of 2002, sixteen countries, including Lebanon, has signed on to GAFTA with most countries facing difficulties in implementing the Executive Program.

The challenges facing Lebanon include protecting infant industries and a dressing the fiscal implications as a result of liberalizing trade with members of GAFTA.

Source: MET, 2003.

# 3 Agro-food production, consumption and trade

#### 3.1 - Agricultural Production

The 1999 census conducted by MOA and FAO revealed that 248 000 hectares of lands were cultivated (24 percent of the Lebanese territory), of which 42 percent were irrigated and two percent were under greenhouse production. An additional 53 137 hectares were fallow lands abandoned for more than five years. Almost 42 percent of the exploitable agricultural land is located in the Bekaa, which also accounts for 52 percent of the total irrigated land.

More than half of the farms are small in size and less than two percent exceed 100 dunums (table 3, Annex 2). Almost 75 percent of farmers cultivate an area less than 10 dunums each and account for 20 percent of total cultivated land. The average farm size in Lebanon is 12,7 dunums: it ranges from 6,1 dunums in Mount Lebanon to 29,3 dunums in the Bekaa.

The agricultural sector employs about 195,000 holders, up from 143 000 in 1961 (MoA/FAO, 2000).

According to the "agricultural census project" the total cultivated area amounted to 261 hectares (2002). Fruit trees constitute around 53,7% of the total cultivated area. Cereals, vegetables, legumes and industrial crops cover 21%, 15,7%, 3,7% and 3,9% of the total cultivated area, respectively.

According to the last survey conducted by MOA, the total value total value of the agricultural production reached around LBP 1 929 billion (2002) an increase of 8% against the year 2001. Crop production represented 73% of the total value and the animal production had a 27% share.

Livestock production is an important activity, particularly in the mountains and in the Baalbeck-Hermel area on the eastern mountain chain where soil fertility is relatively low. Bovines and dairy production is becoming increasingly popular. In the past five years, 3 medium-to large-scale dairy farms have been established in the North and in the Bekaa. Farmers have also been encouraged to expand dairy production through several grants and loan agreements due to MOA and private initiatives under international and national NGO's.

Animal production doesn't satisfy local consumption except the poultry sector. About 26,630 farmers produce almost 10 million broilers and 4.5 million layers annually MOA/FAO, 2000). The vast majority are small, backyard farming systems for local consumption only (village and households)

# 3.2 - Food Industries

The Agro-food industry is the most important sector of the Lebanese industry accounting for 20% of industrial enterprises and contributing with 26% to GDP (Tmasin and Trifiro, 2002). The Lebanese Food industry sub-sector includes the traditional products such as alcoholic products (wine and Arak), confectionery, canned fruit and vegetables, bakery products and olive oil (table 9 in Annex 2).

New plants have been recorded in recent years in potato chips and snacks, dairy products, frozen food, vegetables, feed mill and poultry breeding centers.

According to the General Directorate of Industry, 824 new factories were established in 2002 (against 599 in 2001), employing 6 721 persons (4 425 in 2001) and necessitating the investment of LBP 179 billion (LBP 105.1 billion in 2001).

The distribution of new registered factories by categories of products shows a preponderance of food and beverages with 24,7% of the total (as shown in the table 4).

Food and beverages products are considered as an important sector in the economy. The industry represents 4,2% of the total exports (US \$ 64,7 million). However, there is a continued need to focus on standards and technical specifications. This can only be through investing on technological innovation, automation and quality control of processing plant.

Fruits and beverages processing and preservation sub sector comprise around 4% of the total food and beverage sector (160 establishments), while bakeries represent 48% of the total and sweets industries 22.5%. Some 150 companies have a production capacity that enables them to export.

The most important areas of production are for processed foods, such as pickles, jam and packed foods, with 132 companies operating in that sector. Another 35 companies, mostly in the Bekaa valley, are in dairy products.

Fruits and vegetable sector for example, the success this sector giggly connected with the agricultural sector that is most important source of raw materials, increased mechanization in agricultural production is needed, consequently financing and contract growing needs to be organized. On the other hand the need to achieve and maintain levels of quality that satisfy international standards can be important catalyst for the ago-food business. For example, wine production contributes little to exports (5% of the total export value). Nevertheless, high quality Lebanese wine still maintains a strong reputation.

This is more importantly to benefit of the EU market opportunities opened to Lebanon through the EU association agreement (see section 1.3). However, to many industrialist of this sector, the industry face policy related problems and lack of financing, low technologies and high taxes on raw materials, where around 80% of raw materials used by food industry are imported.

Table 3. Distribution of Registered Agro-food Industries at the Ministry of Industry by Number of Enterprises, Employees and Capital, 2002

	2002				
	Numbers of enterprises unit	Number of employees	Total Capital (Mn L.L.)		
Food products and beverages	204,00	1901,00	66867,90		
Other	620,00	4820,00	112031,52		
Total	824,00	6721,00	178899,42		

Source: Ministry of Industry, 2003.

# 3.3 - Food consumption

Food consumption data are still lacking in Lebanon. Lebanon is a net importer of food products. The gap between domestic food production and consumption requirements is covered mainly by imports.

Food deficit is mostly manifested in cereals. The share of milk production and meat in total requirements remains low. Red meats cover only 15% of the domestic consumption, whereas milk and dairy products provide 62% of the total domestic consumption, against 56% in year 2000.

Fruits, vegetables and poultry production exceed the local market consumption and could contribute substantially to increasing exports.

### 3.4 - Trade in agro-food products

According to the statistics of the Higher Customs Council, Total agro-food exports amounted to US \$ 235 million against US \$ 175 million in the previous year. The share of food and agricultural products to total exports was 15,48% in year 2003, against 16,7% in 2002. The largest export component of this category was the prepared foodstuffs, beverages and tobacco (63,8%), followed by plant products (27,66%) (table 4).

Main destiny for the Lebanese Agro-food export is the Gulf countries (60%), followed by Syria (21%), Jordan (10%), EU (2%) and Egypt (2%). The geographic distribution of agro-food exports shows that Lebanon main clients are Saudi Arabia, United Arab Emirates, and Kuwait. In fact, most of the vegetables and fruits industry products are exported to Saudi Arabia (16%), United Sates of America and United Kingdom.

Agro-food imports, on the other hand, reached US \$1331,6 million for 2003 compared with US\$ 1237 million in 2002 (table 5, Annex 2). Main exporting countries are Brazil, Egypt, Iran, Netherlands, and the United States of America.

Cereals are imported from the United States of America (41% of the total cereals), and Australia (11%) and Germany (8%).

Most of the live animals and animal products are imported from France, Germany and Turkey. Lebanon is sufficient in poultry products. Exports of eggs amounted to US \$ 43 million. Market of these products is mainly Kuwait (65%), Bahrain (18%), and Qatar (6%).

The wine industry has achieved notable success and accounted for US \$ 8 million worth of export to Europe, America and Australia.

Table 4. Trade of Agro-Food Products by Type, 2001-2003 (US \$ Million)

	2002		2003	
	Exports	Imports	Exports	Imports
Live animals, Animal products	8,2	381,9	12,0	418,9
Plant products	57,1	336,0	65,0	383,5
Oil, Grease and Fats	7,4	44,7	9,0	52,5
Prepared Foodstuffs, Beverages, and Tobacco	102,3	474,5	150,0	476,7
Total	175,0	1237,0	235,0	1331,6

Source: Higher Customs Council, 2003.

### 4 Fisheries

#### 4.1 - Infrastructure, consumption, and trade

The Lebanese shores are of 230 kilometers long. The total number of ports was reported to be 31 (figure 1, Annex 1). Number of fisherman who depends on fishing for living is estimated at 6 500 fisherman, whereas those considered as amateurs are in the order of 10 000 fishermen (as registered in MOA).

Most of the fishermen are members of different associations (25 coops and 4 syndicates) distributed over the mohafazats (districts) of Lebanon.

Total number of fleets is of 2000, most is of 10 meter long of which only 1961 fleets are considered as full timers. The total number of fleets, having more than 10 meters long, is only 71.

The total amount of marine captured fish is in the order of 8 000 ton. There has been recent advancement in the quantity of captured fish due to the introduction of modern techniques (lighting, longer nets, better engines for the fleets and the use of mobile phones).

While sea fish production in Lebanon compares to that of neighboring countries on a kilometer-of coastline basis, freshwater fish production continues to lag behind (table 5). There is no breeding of sea fish along the coast (coastal current too strong in most places). Offshore fishing of pelagic fish (tuna, blue fish, etc.) using draglines has become trendy in the past decade, mostly among sports amateurs equipped with motor speedboats.

Table 5. Fish Production in Lebanon and Neighboring Countries (1996)

Country	Sea fish production (tonnes)	Freshwater fish production (tonnes)
Lebanon	4,110	375 (mostly rainbow trout)
Syria	1,941	7,290 (mostly carp)
Palestine (Gaza)	1,229	
The Occupied Territories	2,939	17,568 (mainly carp and tilapia)

Source: MOE, 1999.

As for Pisiculture, the industry accounts for 1 200 stations mainly distributed in Bekaa area along Assi river with some smaller ones along the South coast. Most of the production is of Trout fish which is at 500 tons with a total value of billion 2,26 billion L.L. The year 2003 marked a decrease in the production against the year 2001 (800 tons).

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Anjar Station for Aquaculture Production that belongs to MOA imports Trout eggs and incubate them for fingerling production to be distributed free of charge for farmers. Only two pisiculture industry is able to incubate their own trout eggs and the rest of the industries depend on Anjar station. Fertilized eggs are usually imported from Denmark, and Italy.

Total amount of imported fish (including crustaceans and mollusks) in year 2003 amounted to a total of 12200 tons at a value of US \$ 30.69 million, against a total of 10 410 tons (at US \$ 29,86 million) in the year 2002. Turkey is the number one exporting country (32% of the total imports), followed by the United Kingdom (6%) and Kuwait (6%).

Domestic consumption is estimated at 25 000 ton per year with 24% coverage from local production (marine and pisiculture).

It is to be noted that a regional project (Cyprus, Egypt, Lebanon, Syria and Turkey), stated in 2004, aiming at preparing participating countries to set up and harmonize their fishery statistics systems and participate in full in the activities of the MedFIsis project, started in 2004. GFCM at its Twenty-sixth Session (Ischia, September 2001), endorsed a project proposal to develop a MedFIsis.

This 3 year project is jointly financed by FAO and the EU. Such a regional project is recognized as necessary to complement other fisheries management means and serve as the basic vital tool for international bodies to monitor the state of the Mediterranean fisheries and the well-being of the whole ecosystem in the basin.

This project is expected to help Lebanon in strengthening its capacity of the fisheries and information systems, with the set up of a computerized fishing vessel register and fleet analysis for key fleet segments and training of the staff in the fishery department of MOA. This will contribute to the set up of an operational National statistical system in providing accurate details the size, structure and spatial distribution of the primary fishing industry, (marine capture) i.e., number of fishing vessels, by type category, fishing methods, and equipment used, fishing labor force, etc.

# 5 Main Agricultural policies

# 5.1 - Evolution of the agro-food policies and public expenditures

The Lebanese MOA is currently revising its agro-food policies and strategies. This is the outcome of the Agricultural Strategy that is being developed with FAO and the one that was developed with the EU support and a third component through the French cooperation protocol.

The FAO project is basing its efforts on the "Agricultural Census Project" results to prepare for monographs and studying of the various plant and animal production chains (filières).

On the other hand, the EU project (Agriculture Policy and Planning), which ended very recently prepared a Master Plan for the agricultural sector. The main components of the plan were:

- the economic organization of agriculture;
- farming system analysis in Lebanon;
- the acquisition of competences;
- the marketing system;
- agricultural legislation and institutional reform.

The French cooperation component is based on organization of professional organizations and it is focused on vegetables, fruits and vine production.

Historically, public expenditures on the agricultural sector were low. Despite a slight increase in MOA budget for the year 2003 (0,40% of the total government budget) against 2002 (0,37%) MOA still have an allocation of less than 1% of the total government budget (table 6).

However, other government expenditure is also allocated through MET supporting subsidies of Wheat production (a total of US \$7,4 million for the year 2003), and MOF subsidizing Tobacco and Tombac production (US \$37,4 million), in addition to IDAL allocating US \$33 million to the Export-Plus program (tables 13 and 14 of Annex 2). CDR has also awarded a total value of contracts of approximately US\$ 3 million in year 2003 to the sector of agriculture.

Moreover, "kafalat" is a loan guarantee scheme- efforts made by the government to increase lending capacity from 100 to 300 million LL to SMEs (40 employees or less) in agriculture, tourism, IT, and industry and to stimulate investment in SME which make up the overwhelming majority of Lebanese firms. This is in addition to subsidized loans (Increase subsidies (7% below 5mn, 5% between 5 and 15mn LL) to increase investment in key sector and support SME).

Table 6. Evolution of MOA budget 2002-2003

	2002	2003
Total Budget (billion L.L.)	35	34
% to total government budget with debt service	0,37	0,40
% to total government budget without debt service	0,71	0,76

Source: MOA, 2003.

To this effect and according to BDL, Subsidized loans to industry, agriculture, tourism and handicrafts (those approved by the Banque du Liban and those guaranteed by Kafalat Corporation) were LBP 274,1 billion in the year 2003, out of which LBP 89,3 billion were credit facilities guaranteed by Kafalat Corporation.

The share of industry was predominant with 48,2%, followed by agriculture with 30% and tourism with 16,8%.

Concerning used loans that benefit from deductions in liabilities subject to reserve requirement medium and long-term loans to productive and housing sectors submitted by banks, including subsidized-interest loans), they amounted to LBP 184,8 billion in the year 2003, against LBP 367,3 billion at in the year 2002. The share of the agricultural sector was 4,1%.

As to sectorial distribution of bank credits by number of accounts a share of 1,81% of the total credits benefited the agricultural sector in the year 2003 against 1,72% in the previous year.

Table 7. Subsidized interest loans to sme's in 2002-2003

	2002		20	003	
	Value	%	Value	%	
Subsidized interest loans ap	proved by BD	L (in billion of I	LBP)		
Industry	238,,5	64,9	124,2	67,2	
Agriculture	7,6	32,4	7,6	4,1	
Other	121,2	33,02	53,0	28,68	
Total	367,3	100	184,8	100	
Subsidized interest loans gra	anted by Kafa	lat (in billion of	LBP)		
Industry	60,1	55,1	43,0	48,2	
Agriculture	27,6	25,3	27,0	30,2	
Other	21,5	19,69	21,61	24,20	
Total	109,2	100	89,3	100	
Total subsidized interest loans					
Industry	298,7	62,7	167,2	61,0	
Agriculture	35,2	7,4	34,6	12,6	
Other	29,93	29,9	72,3	26,4	
Total	476,5	100	274,1	100,0	

Source: BDL, 2002. \* 1 US \$ = LBP 1507.

# 5.2 - Structural Adjustment Policies

The government considered undertaking structural reforms that further liberalize the economy through modernizing existing laws, minimizing restrictions and simplifying procedures which will promote private investment improve public services improve productivity and render the economy more competitive and privatization.

Concerning modernizing the laws and enhancing the legal framework several measures were taken:

- A new, WTO-compatible Customs Law was enacted in June 2001, which, among others, simplifies procedures and introduces modern information technology for customs declarations, and international standards for clearance.
- Imports of oil were liberalized in 2001 and legislation to liberalize imports pharmaceuticals was submitted to Parliament.
- Legislation is under preparation to abolish exclusive agencies and commercial representation, which limit competition, and to streamline licensing requirements for trade.
- Competition law and consumer protection law is being prepared.

A number of other laws are being prepared in line with requirements for WTO membership through guarantees, Central Bank deposits, investments in Lebanese Government bonds and bills, and similar arrangements requested at Paris II meeting that is "the Non-Tariff Trade law" to which the first draft will be prepared in 2003 that amend and modernize existing laws and introduce new WTO compatible measures (TBT, SPS, licensing).

Moreover, the Government has set out to undertake a major program of corporatization and privatization of public infrastructure to bring about a reduction in the stock of debt, as well as improvements in efficiency of operations.

In this concern, Three laws were enacted in 2002 to set the stage for privatization of two existing cellular phone systems, the fixed line telecommunications, and the power sector. Note that the telecom and the power sectors represent by far the largest components of public infrastructure, other than roads, in terms of assets.

Moreover, preparations are also underway for more legislation to support the privatization of the water and wastewater sectors, and the Beirut Airport through concessions. Finally, legislative measures were taken in 2002 authorizing the establishment of special accounts for privatization proceeds to be used exclusively for purposes of debt reduction. The same legislation also authorizes Government to establish special accounts for certain revenues to be used for securitization, and for the receipt of loans with the sole purpose of debt payment.

# 5.3 - Prices and Subsidies Policies

For socio-economic considerations, including reducing rural-urban migration, and in efforts to replace illicit crops, the government through the General Directorate of Cereals and Sugar beets in the MET regulates wheat related economic activities.

The National Board for Tobacco and Tombac (NBTT) in MOF monopolizes Tobacco and Tombac production in the country. NBTT sets the prices, buys the farmers' harvest and supplies storage and processing of the product.

A recent decision taken by the Council of Ministers was about resuming Sugar beets market support as was strongly requested by Bekaa farmers a decision that was taken based on social considerations. This was after a year of taking an opposite decision within the context of reducing subsidies to farmers in response to WTO and EU agreements.

#### 5.3.1. - Wheat

According to the current government policy, the state ensures that all wheat produce is purchased from local farmers and at a subsidized rate. Both the public and private sectors import wheat at international market prices whereas refined sugar is imported only by the private sector.

The General Directorate of Cereals and Sugar Beets gets the wheat produce from farmers as well as from imports and sells this wheat to the 11 operating mills in Lebanon. Mills import three quarters of the local market needs annually (300 000 tons) after acquiring a visa from the MET provided that the ministry enforces a ratio of 1 ton for every 3 tons of imported wheat to be bought from the ministry. Currently the ratio is set at 1 to 4.

Each year The Ministry reviews the value of subsidy per ton according to the international prices of wheat.

Moreover, the wheat seeds are to be provided by the Lebanese Agricultural Research Institute (LARI), which multiply it and sterilize it and sell it to the General Directorate of Cereals and Sugar beets at costs.

According to this ministerial decision the production cost of a one Ton of wheat was less than LL. 258 000. Moreover, and as a result of removing the subsidy on Sugar beets, the yield of wheat crop increased and the cost of land decreased (after it was contributing to more than 65% to the total cost of production).

As the international price of wheat decreased to about US\$ 133/ton (according to Beirut Port), the MET set the price of subsidized wheat at 375 000 LL/Ton for the production season of 2002-2003, against 400 000 LL/Ton for the season 2000-2001.

As the total subsidy for the season 2000-2001 reached around US \$ 7,43 million (table 13, Annex 2), no official publication for such figure for the season 2001-2002 is yet out.

The total production reached  $45\,000$  tons (while total imports of wheat and meslin amounted to  $372\,531$  ton). A total of 1411 farmer benefited from the support of these about 68% has an area of 5 hectares.

#### 5.3.2. - Tobacco and Tombac

The National Board for Tobacco and Tombac (NBTT) in the ministry of Fininace monopolises Tobacco and Tombac production in the country. NBTT sets the prices, buys the farmers' harvest according to a license that sets a quota, supplies storage and processing of the produce.

In the year 2003, the total value of subsidy amounted to around US\$ 37,8 against US\$ 38 million in year 2002, for about 8 282,7 tons of licensed quantity of Tobacco and Tombac.

The total production of tobacco is 10 000 ton of which 61% is mostly in the South of Lebanon with an area of 8 500 ha and benefiting around 27 000 households. The average yield is 10 ton per dunum. This support benefits around 20 000 farmer or family.

### 5.3.3. - Olive Oil Support

The Higher Commission for Relief, a body that is under the authority of the Council of Ministers is entitled with special relief and development mission. In an effort to support producers of olive oil, the commission supports the marketing of their produce through buying the oil from farmers and Farmer's cooperatives. In the year 2003, the figure attained a total of 5 billion L.L. with 1 500 tons of oil (at a price of 80 000 L.L. per tank which is equal to 15 kg). The oil is then sold at subsidized price (half its price) to some institutions and distributed free of charge for social and humanitarian associations, public institutions and the Lebanese army (a total of 300 tons).

# 5.3.4. - Apple Support

In the year 2003, and as a response to Apple producers' complain about the surpluses of their produce due to the high cost of production and the tough foreign competition the Council of Ministers suggested to the Ministers of Agriculture and Finance to increase the tariff on imports of apple. Tariff was suggested to be increased from 800 LL/kg to 1500 LL/kg. Furthermore, it approved a direct payment of a total of 5 billion LL.

Around 1 billion LL was allocated to buy the produce on the basis of 12 000 LL per box of apple (20 kg) to a total of 80 000 boxes to be then used by the Lebanese Army. These payments were to be directly paid to farmers or their cooperatives.

Furthermore, an amount of 1 000 box to be supported on the basis of 3 000 LL per box of stored apple.

# 5.3.5. - Input Subsidies

MOA subsidies inputs to farmers (veterinary drugs and vaccinations, pesticides, seeds, seedlings, honey bee disease control...) on yearly basis (table 14 Annex 2). The total value of subsidized inputs for the year 2003 amounted to US \$ 3,2 million against US \$ 4,2 million in the previous year. This reflected MOA strategy in reducing the budget allocated to pesticides for the year 2003 in its efforts to disseminate IPM techniques and cutting down on pesticides applications and improving the quality produce.

#### 5.3.6. - "Export Plus" Program

"Export Plus Program" that started in August 2001, aiming at supporting the Lebanese agricultural exports is still in place. This program was viewed as one of the programs that can boost and revitalize the productive sectors in Lebanon. Investment development authority of Lebanon (IDAL) prepared this program, at an estimated amount of 50 billion LBP, from its allocated budget.

These direct payments were paid to farmers on the condition that the farmers bind to certain standards. This amount will depend on the cost of transporting the produce to its destined market and on the kind and date of agricultural production.

Total export through IDAL amounted to 356 254 ton in the year 2003 of which Potatoes rank number one (30% of the total export), followed by oranges (25%), Apples (10%), and grapes (10%). The exports of table eggs amounted to 174,627 boxes.

Although that this program is criticized as not directly benefiting farmers but rather traders, and according to IDAL the program was marked by the following:

- The overall activity for the first seven months of 2004 was marked by a 63% increase in the level of exports when compared to the corresponding period of 2003, with the total volume of exports of fresh fruits and vegetables reaching 212,811 tons.
- Despite the increase in export quantity marked by January, September, October, November, and December of the year 2003, the overall activity for the second year of Export Plus was marked by a 0,3% decrease in the level of exports when compared to 2002, with the total volume of exports of fresh fruits and vegetables reaching 356 255 tons.

- The drop in the level of agricultural exports in 2003 was mainly induced by bad weather conditions which resulted in lower yields and lower quality of products. As a result, the inspection bureaus rejected 4% of the products which were destined for exports. With 71% of Lebanese agricultural exports intended for the Gulf region, the volume of agricultural exports was further dampened by the war on Iraq.
- Saudi Arabia has maintained the lead (in terms of quantity, ranking first among other importing countries).
- The Export Plus program has a direct impact on the activity of the transportation sector, especially land transport. In December 2003, 1707 transportation trucks were used to transport agriculture exports. The trucks were from various nationalities, with those having Lebanese license plates accounting for the biggest share with 64% of the total.

#### 5.4 - Rural Development Policies

Rural development responsibility is fragmented among several ministries and agencies where each implements its own program and projects separately. However the Council for Development and Reconstruction (CDR) is the body responsible for national planning and coordination. Effectively, and in May 2002, CDR prepared a draft for a "Rural Development Strategy and Policy State". This represents an important measure concerning the formulation and application of a national and regional comprehensive rural development programs. The Proposed strategy and action plan for rural development emphasize the following:

- increasing effectiveness of public expenditures;
- improving access to social and economic infrastructure;
- enhancing competitiveness of agriculture;
- provision of enabling policies, laws and regulations;
- improving the natural resource management;
- increasing contribution of rural women in development;
- adoption of a participatory approach for rural development.

The strategy aims at increasing allocations to rural areas to achieve a more balanced regional development and it will give elected Municipal Councils in rural areas, in a partnership with local communities and civil societies, a considerable role in identifying local needs and priorities and involving them in the implementation of rural activities.

CDR will have overall responsibility for its execution and supervision. This will ensure national cooperation and coordination of the concerned institutions and agencies.

The Council for Development and Reconstruction (CDR), through a world bank managed Japanese Grant prepared 4 preparatory studies for a rural development project for Lebanon which dealt with the following:

A work plan and strategy for integrated rural development (Rural development Strategy and policy state); evaluation of urgent needs for involvement and rural development; marketing agricultural products and available options for interventions and institutional assessment. This project is under evaluation by the various parties for possible funding by the World Bank.

Moreover, the CDR is managing several projects aiming at improving the basic social and economic infrastructure and develops the productive capacities for people in these regions as well as to achieve balanced economic development based on partnership between the public and private sectors and civil society. Of these projects the following are considered to contribute largely to the government rural development initiatives: (1) Post-Conflict Socio-Economic Rehabilitation Program for Southern Lebanon; (2) the Community Development Project (CDP); (3) and the Economic and Social Fund for Development (ESFD).

**Post-Conflict Socio-Economic Rehabilitation Program for Southern Lebanon:** This project was launched by the CDR AND UNDP during the year 2000. During the year 2002 the program targeted youth, agricultural cooperatives and municipalities. About 20 youth clubs were established in the formerly occupied regions of south Lebanon. Training workshops were held for 45 agricultural cooperatives of which 20 received further support to establish small scale projects. Capacity building for 9 municipalities was done to access the resources of the program and help them execute small scale community development projects.

Furthermore, the program was able to sign agreement with the AGFUND to set the preparatory activities to the establishment of a credit scheme as a venue to stimulate post-conflict economic recovery.

**The Community Development Project (CDP):** is a World Bank loan of US\$ 20 million and government contribution of 5 million and an in kind (US 5 million) local community contribution. The project was officially launched in January 2003. The objective of this project is to secure sustainable and effective means to improve living conditions and the economic status for the most deprived communities. It will be implemented through a number of carefully selected NGO's or through partnership agreements to design and execute the program at national level.

The Economic and Social Fund for Development (ESFD): This project which started implementation in 2003 and extends for 4 years, was established on the basis of a funding agreement signed between Lebanon and the European Union. The funding agreement allocated 25 million euro with an additional 6 million euro from the Lebanese government for the establishment of the Economic and social fund for development as an autonomous agency, the project succeeded

in achieving a quantitative determination of the higher and lower poverty lines of the Lebanese district; prepared for the launching of pilot schemes for job creation and community development two components of the project; also capacity building for ESDF partners (including banks, MFIs, BDS providers municipalities and NGOs) has begun.

# 5.5 - Agriculture and Environment

Lebanon's agriculture offers environmental opportunities for green space, landscaped terraces and fresh and healthy produce. At the same time, improper agricultural practices lead to soil erosion and impoverishment, depletion of underground water resources, water pollution and health impacts from inappropriate use of pesticides and fertilizers, and environmental pollution from haphazard dumping of slaughter waste and animal farms.

The Lebanese Government policies appear targeted to increasing the availability of irrigation water and controlling the use of pesticides, with however, little investment or incentives for water- and soil-conserving irrigation techniques.

Non governmental organizations alone and or in partnership with governmental related institutions namely extension department of the MOA, is gradually taking advantage organic farming and high-value agricultural produce.

Among the current related projects the following projects are presented.

### ★ The Convention to Combating Desertification

Lebanon launched its National Action Program to combating desertification on the 17<sup>th</sup> of July 2003. The NAP, which was prepared with the support of UNDP and GTZ, emphasized line of actions that are considered as commitments of the government towards the implementation of the UNCCD. These included: Water management, Forest management, sustainable agriculture, soil conservation, rangeland management, protected areas, socio-economic conditions, land use planning, and institutional framework and legislations. Also map of desertification prone area was produced.

The UNDP (through its project that will last till March 2004) will be mainly tackling resource mobilization strategy for the implementation of the NAP, awareness raising and pilot projects conduction in the areas affected by desertification.

GTZ is currently supporting Lebanon in developing its monitoring system that serve in assessing the status of desertification in Lebanon and for reporting to the United Nation Convention to Combating Desertification on the implementation of the convention and for decision makers.

#### Methyl Bromide Phasing Out

Lebanon has until year 2015 to completely phase out methyl bromide. Hence, a series of projects were initiated to replace methyl bromide with economically and environmentally feasible alternatives.

One project is funded by Multilateral Fund (MLF) of the Montreal Protocol (MP) and managed by UNDP (1999-2001), and executed by the Ministry of Environment. The project was initiated and administered by the Ozone office in Lebanon. The project aimed at demonstrating the technical and economic feasibility of non-chemical methods as alternatives to the use of Methyl Bromide in the production of certain horticultural crops. Training of farmers on the correct use of the alternatives and designing national strategy for the replacement of methyl bromide, for which a national workshop for the harmonisation of the strategy outlines for the complete phase out of methyl bromide in Lebanon, was in place.

Following the implementation of the demonstration phase of the Methyl Bromide Alternatives Project, the Ministry of Environment launched 2 parallel projects, one in coordination with the UNDP for the sector phase-out of methyl bromide in vegetables, cut flowers, tobacco, and another one, in coordination with the UNIDO, for the sector phase-out of methyl bromide in strawberry production in Lebanon. Activities of these projects started in February 2002 and alternatives for each of the sectors have been defined in line with the regulations of the Methyl Bromide Technical Options Committee of the Montreal Protocol.

The UNIDO project is a five-year project that responds to the ratification by Lebanon of the Montreal Protocol, which set schedules to phase out Ozone Depleting Substances (ODS) industrialized and developing countries. It aims at the progressive phase out of methyl bromide from the strawberry sector in Lebanon and its replacement by soil steaming reach to the complete phase out by 2007.

# **∂** Conservation and Sustainable Use of Dryland Agro-Biodiversity Project

A regional project (Lebanon, Syria, Jordan, Egypt) funded by GEF, Managed by UNDP and Executed by LARI started in June 1999 for a duration of 5 years. ICARDA is providing technical backstopping and IPGRI and ACSAD are cooperating agencies. The project is targeting the drylands of Baalbeck Caza of Bekaa.

The Project reviewed the national legislation related to biodiversity and management of natural resources in Lebanon. Also, the project did a study that proposes the mechanism for the national domestication of international conventions and agreements related to the conservation and sustainable use of agro-biodiversity. In addition, the project prepared a study for the establishment of a national plant genetic resource (PGR) program in Lebanon. The objective of this PGR program is to regulate the conservation and exchange of the national plant genetic resources by setting the scientific, administrative, institutional and legal framework for this sector, in the light of the international and regional relevant agreements and conventions that were ratified by Lebanon.

The project is currently in the process of drafting policy options at the farm-household, community and national levels that would promote sustainable agrobiodiversity conservation and sustainable management of natural resources. The options will be based on the socio-economic, ecological and institutional analysis of factors affecting agro-biodiversity.

In terms of better understanding the major causes of agro-biodiversity degradation, the Project has developed GIS maps for the target areas and conducted several surveys (socio-economic, eco-geographic, indigenous knowledge and botanical). The botanical surveys were conducted every year for the herbaceous species and two were conducted for the fruit trees species since the beginning of the project.

A Curriculum Guide, which includes the distribution of the biodiversity concepts throughout the Lebanese education curricula, was produced and presented to the National Center for Research in Education.

Awareness raising and trainings were conducted for local communities, teachers from local schools, and researchers on areas related to project activities. These included areas such as agro-food processing, integrated pest management, organic farming, orchard management practices, water harvesting techniques, GIS, quality seed production, soil and water resources management, plant taxonomy, management of NGOs, land tenure and natural resources management, improved apiculture techniques, establishment and management of fruit trees nurseries, and management of soil and water resources.

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# Annex 1

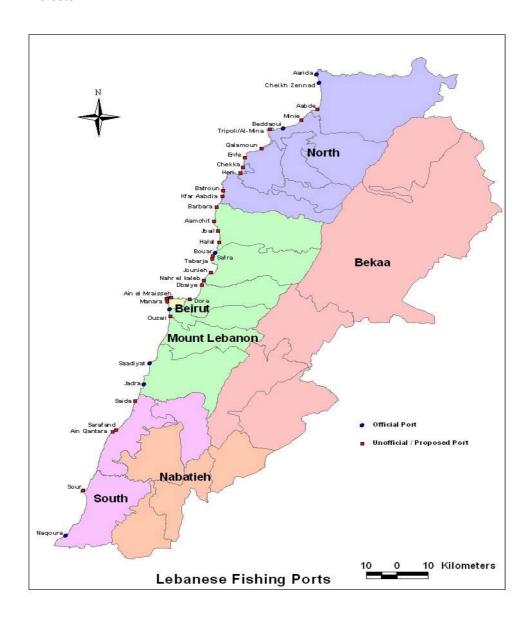


Figure 1: Lebanese Fishing Ports, 2004.

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# Annex 2

Table 2- Economic valuation of agricultural production, forestry and fisheries 2001-2002 (LBP Billion).

Crop production 12 Cereals rice Legumes roots and tubers industrial crops Vegetables	818,00 285,00 68,40 NAP 43,50 156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83 NA	1929,00 1408,00 66,30 NAP 35,10 142,00 96,70 339,70 208,02 38,24 49,53 8,61 265,20
Cereals rice Legumes roots and tubers industrial crops Vegetables Fruits Citrus Grapes	68,40 NAP 43,50 156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83	66,30 NAP 35,10 142,00 96,70 339,70 208,02 38,24 49,53 8,61
rice Legumes roots and tubers industrial crops Vegetables Fruits Citrus Grapes	NAP 43,50 156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83	NAP 35,10 142,00 96,70 339,70 208,02 38,24 49,53 8,61
Legumes roots and tubers industrial crops Vegetables Fruits Citrus Grapes	NAP 43,50 156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83	35,10 142,00 96,70 339,70 208,02 38,24 49,53 8,61
roots and tubers industrial crops Vegetables Fruits Citrus Grapes	156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83	142,00 96,70 339,70 208,02 38,24 49,53 8,61
roots and tubers industrial crops Vegetables Fruits Citrus Grapes	156,90 124,80 251,50 293,62 41,75 49,84 10,20 118,83	142,00 96,70 339,70 208,02 38,24 49,53 8,61
industrial crops  Vegetables  Fruits  Citrus  Grapes	124,80 251,50 293,62 41,75 49,84 10,20 118,83	339,70 208,02 38,24 49,53 8,61
Vegetables Fruits 2 Citrus Grapes	293,62 41,75 49,84 10,20 118,83	339,70 208,02 38,24 49,53 8,61
Fruits : Citrus Grapes	293,62 41,75 49,84 10,20 118,83	208,02 38,24 49,53 8,61
Citrus Grapes	41,75 49,84 10,20 118,83	38,24 49,53 8,61
	49,84 10,20 118,83	49,53 8,61
	10,20 118,83	8,61
	118,83	
	, ,	
Olive oil	TAU.	NA
Other	14,07	158,60
	533,10	521,00
red meat	58,40	68,00
Cow	29,70	33,60
Sheep	14,00	18,30
Goats	9,20	12,00
Pork meat	5,30	4,20
	219,00	204,00
	124,30	123,00
Eggs	53,30	49,00
Honey	19,10	17,00
Fish	59,00	60,00
. Intermediate consumption	97.	
seeds and plants	NA	NA
Animals	NA	NA
Energy	NA	NA
Fertilizers	NA	NA
Phytosanitary	NA	NA
veterinary products	NA	NA
animal feed	NA	NA
services	NA	NA
others	NA	NA
. Added value (market price)		
D. Subsidies		
. Taxes		
Added value (cost of factors)		+
G. Depreciation		+
I. net added value (cost of factors)		+

Source: Ministry of Agriculture/FAO Agricultural Census Project (1998-1999).

\* will be provided when published.

II- Forestry		2002	2003
A.	Total Agricultural Production	NA	NA
B.	Intermediate consumption		
	seeds and plants	NA	NA
	Energy	NA	NA
	Fertilizers	NA	NA
	Phytosanitary	NA	NA
	Maintenance	NA	NA
	services	NA	NA
c.	Added value (market price)		
D.	Subsidies		
E.	Taxes		
F	Added value (cost of factors)		
G.	Depreciation		
Н.	net added value (cost of factors)		
III- Fishery		2000	2001
A.	Total Production		
	Fish	57,00	56,00
B.	Intermediate consumption	NA	NA
C.	Added value (market price)		
D.	Subsidies		
E.	Taxes		
F.	Added value (cost of factors)		
G.	Depreciation		
Н.	Net added value (cost of factors)		

<sup>\*</sup> NA: Not Available \*\* NAP: not applicable

Source: Ministry of Agriculture/FAO Agricultural Census Project

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Table 3. Distribution of Number of Agricultural Holders by Size and Area of Holdings (Dunum) (1999).

Classe	Number of Holders	Area (Dunum)
<1	18126	11826
1-2	27689	38328
2-5	53749	172102
5-10	37994	264219
10-20	27434	377165
20-40	14977	406779
40-60	4559	219706
60-80	2079	142219
80-100	1048	92952
100-150	1434	169772
150-200	549	92690
200-500	911	265180
>500	244	226457
Total	190793	2479395

Source: Ministry of Agriculture/FAO Agricultural Census Project (1998-1999)

Table 4- Evolution of Main Crops Production 2001-2002.

	Area (1000ha)		Producti	on (1000T)
	2001	2002	2001	2002
Durum Wheat	NA	NA	NA	NA
Soft Wheat	NA	NA	NA	NA
Wheat	43,60	43,51	139,50	119,00
Barley	7,00	11,51	8,10	17,10
Corn	0,88	0,85	3,80	2,70
Rice	NAP	NAP	NAP	0,00
Other cereals	0,50	0,15	4,10	126,10
Total Cereals	52,05	56,02	172,00	264,90
Potato	11,94	16,86	257,00	397,00
Sugar beets	9,11	8,79	12,80	9,70
Sunflower	NA	NA	NA	NA
Forage Crops *	NA	NA	16,60	25,11
Lettus	1,09	0,72	35,10	17,30
Melon	0,50	1,13	14,90	32,20
Watermelon	2,13	2,66	61,00	67,70
Tomatoes	4,35	5,16	247,00	27,05
Green Pepper	0,28	0,32	5,90	4,20
Onion	4,12	0,34	144,20	72,60
Orange	8,90	8,78	155,80	155,40
Mandarin, Clemantine	2,25	2,41	46,10	42,50
Citrus	3,60	3,54	103,10	81,20
Apple	9,46	9,38	112,00	150,30
Pears	3,06	3,08	30,80	27,50
Apricots	5,78	5,79	19,60	39,30
Almonds	6,56	6,42	23,90	23,00
Banana	2,75	2,53	66,70	67,70
Table Grapes	11,02	11,37	89,00	84,80
Wine	2,80	2,89	27,20	17,20
Table olives	56,83	57,57	85,80	184,40
Oil Olive			12,00	25,00
Other	53,39	55,30	564,20	520,44

Source: Ministry of Agriculture/FAO Agricultural Census Project.

NA: Not Available NAP: not applicable. \* only Hay production.

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Table 5. Evolution of Animal Production, 2001-2002.

		Number of slaughtered animals (1000)		ction (1000T)
	2001	2002	2001	2002
Meat				
Cow	37,00	39,50	13,80	14,30
Sheep	120,00	155,00	5,20	6,50
Goats	110,00	135,00	4,00	4,90
Pig	23,00	21,00	2,20	1,90
Horses	NAP	NAP	NAP	NAP
Poultry	64,00	67,00	118,00	116,20
Rabbits	NAP	NAP	NAP	NAP

	Production (1000T)			
	2001	2002 *		
Milk	217,00	245,00		
cow Milk	167,10	193,55		
Sheep milk	22,20	29,40		
Goat milk	27,30	22,05		
other	NAP	NAP		
eggs unit	740,00	770,00		
Honey	0,80	0,73		
Fish *	7,40	8,20		

<sup>\*</sup> represents the marine + trout production.

Livestock (1000 head)			
2001	2002		
78,10	88,20		
328,50	297,80		
399,10	427,80		
23,00	21,00		
2500-3000	2500-3000		
	2001 78,10 328,50 399,10 23,00		

Source: Ministry of Agriculture/FAO Agricultural Census Project. NA: Not Available NAP: not applicable.

Table 6.- Production Cost of Main Products, 2001-2002 (LBP/kg).

	2001	2002
Durum Wheat	427	406
Soft Wheat	NAP	NAP
Barley	245	225
Corn	384	236
Rice	NAP	NAP
Potato	415	280
Sugar beets	112	
Sunflower	NAP	NAP
Forage Crops	NA	NAP
Lettus	285	328
Melon	408	264
Vatermelon	252	151
'omatoes	355	323
Green Pepper	360	316
Onion	275	267
Orange	355	550
Mandarin, Clemantine	465	610
itrus	405	471
apple	580	763
ears	675	814
pricots	660	436
lmonds	610	662
anana	505	587
able Grapes	560	584
ine	560	584
able olives	1385	1438
live Oil	5625	5625
ther	5025	5025
leat		
OW	2150	2350
heep	2730	2820
boats	2300	2450
ig	2410	2200
lorses	NAP	NAP
oultry	1600	1670
abbits	NAP	NAP
ther	INAI	INAP
filk		
ow Milk	F00	F 4 F
heep milk	593	545
*	614	593
oat milk	780	734
ther		_: <
eggs unit	71,6	71,6
Honey	22000	23000
Fish	NA	7572

Source: Ministry of Agriculture/FAO Agricultural Census Project. 1- Represents farm gate prices. NA: Not Available NAP: not applicable

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Table 7 - Price of Major Inputs, 2002-2003.

	Unit	2002	2003
Non qualified labor			
Male	L.L. /day	15000	15000
Female	L.L. /day	10000	10000
Qualified labor	L.L. /day	25000	25000
Non irrigated land rent	\$/dn	25	25
Irrigated land rent	\$/dn	120	120
Seeds			
Hard wheat	L.L./kg	360 - 400	360 - 400
Soft wheat	L.L./kg	1500	1500
Sweet corn	\$/kg	6-8	6-8
Field corn	\$/ton	160	160
Barley	\$/ton	90	90
Potatoes	\$/ton	900	700
Onion	\$/kg	35 - 40	35 - 40
Melons	\$/1000 seeds	35	35
Watermelons	\$/1000 seeds	25-30	25-30
Peppers	\$/5 g	25-30	25-30
Tomatoes	\$/5 g	80-85	80-85
Plants			
Citrus	\$/plant	2 - 5	2 - 5
Vine	\$/plant	1.5 - 2	1.5 - 2
Apples	euro/plant	5 - 5.5	5 - 5.5
Peaches	euro/plant	6 - 7	6 - 7
Pears	euro/plant	6 - 6.5	6 - 6.5
Apricots	euro/plant	6 - 7	6 - 7
Fuel	L.L/20 Liter	8000	8000
Fransport	% of production cost	15 - 20	15 - 20
Azoted fertilizer			
NH4SO4	\$/ton	170	170
NH4NO3	\$/ton	190 - 200	190 - 200
Phosphated fertilizer			
P2O5	\$/ton	180 - 200	180 - 200
Potassium			
K2SO4	\$/ton	360	360

Table 8 \*- Major Indicators of Agro-Food Industries, 1998.

		1998		
		Total Industries Agro-food		
		value	value	% of total
Number of enterprises	unit	22025,00	4482,00	20,35
Total workforce <sup>1</sup>	1000	114,10	26,39	23,13
Number of employees <sup>2</sup>	1000	78,60	19,90	23,32
Output <sup>3</sup>	US\$ million	3952,90	1011,31	25,58
Value-added	US\$ million	1706,80	432,80	25,36
Salaries	US\$ million	576,00	116,82	23,72
Investment	US\$ million	373,40	147,99	39,63

Source: Ministry of Industry.

According to a field survey conducted between October 1999 and februray 2000 by Ministry of Industry with the GTZ assistance and referred to 1998 results.

<sup>1:</sup> owners, family members, and employees excluding seasonal workers.

<sup>2:</sup> Permenant workers.

<sup>3:</sup> value of production from main activities + value of production from secondary activities + value of production that has been added to the establishment's assets.

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Table 9 - Sub-Sector Indicators of Agro-Food Industries, 1998.

	1998						
	Numbers of enterprises	Total workforce <sup>1</sup>	Number of employees <sup>2</sup>	Output <sup>3</sup>	Added Value		
	unit	1000	1000 employee	US\$ million	US\$ million		
Meat Industries	38,00	1,11	1,05	53,80	36,82		
Fish and fish products industry	33,00	0,17	0,12	6,87	3,84		
Fruits and vegetables	160,00	1,22	0,85	73,94	19,93		
Oil, fats and greases	312,00	1,07	0,46	20,62	11,84		
Dairy industries <sup>4</sup>	212,00	1,38	0,83	38,24	16,40		
Manufacture of grain mill products	182,00	1,33	0,86	184,32	87,14		
Animal feed	3,00	0,10	0,95	18,81	10,13		
Manufacture of bakery products	2181,00	9,23	5,82	173,67	65,05		
Sugar	34,00	0,15	0,79	0,61	0,15		
Cocoa. Chocolate and sugar confectionary	1007,00	5,58	3,78	154,53	57,42		
Wine	2,00	0,09	0,08	5,37	3,07		
Distilling and blending alco	hol and						
manufacture of malt liquors and malt	62,00	0,56	0,42	28,24	15,62		
Manufacture of soft drinks and mineral waters	115,00	2,68	2,50	158,77	67,97		
Other	141,00	1,70	1,39	93,52	37,41		
Total	4482,00	26,39	19,90	1011,31	432,80		

Table 10- Total Agrofood External Trade, 2001-2003 (Millions US\$).

	2001	2002	2003
Total Products			
Exports	889,90	1045,00	1518,00
Imports	7291,00	6444,00	7167,00
Agrofood Products			
Export	165,00	175,00	235,03
Import	1268,00	1237,00	1331,60

Table 11- Agrofood External Trade Distribution by Region, 2001-2003 (Millions US\$).

	2001		2002		2003	
	Exports	Imports	Exports	Imports	Exports	Imports
EU	41,00	417,00	24,00	490,00	38,00	499,00
North America	37,08	225,00	24,00	178,00	38,00	183,00
OECD	82,08	826,00	53,00	824,00	95,00	823,00
other countries	82,82	442,22	121,00	414,00	140,03	508,60

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Table 12. Agricultural External Trade Distribution by Product, 2001-**2003.**Source: Ministry of Agriculture/FAO Agricultural Census Project and Customs Administration

* including watermelon	AO Agricultural Census Project and Customs Administration 2001					
** including quince	Imports Exports					
*** NA: Not Available	Quantity	Value	Quantity	Value		
**** quantity in liter	1000T	1000\$	1000T	1000\$		
Durum Wheat	368,980	52675,333	0,013	16,000		
Soft Wheat	0,000	0,000	0,000	0,000		
Barley	73,080	7319,333	0,000	0,667		
Corn	298,420	32134,000	0,098	10,000		
Rice	457,830	15515,333	0,970	199,333		
Other cereals	6,240	1064,667	0,024	11,333		
Total Cereals	792,510	108708,667	1,110	237,333		
Potato	55,170	15642,667	81,180	9281,333		
Sunflower	5,800	3042,000	0,040	24,000		
Forage crops	134,480	33502,133	41,280	2968,667		
Lettus	-	318,667	-	1106,667		
Melon & watermelon	8,790	1940,667	0,390	50,000		
Tomatoes	12,910	2893,333	5,810	746,000		
pepper	3,710	1762,667	1,610	224,667		
Onion	22,300	3545,333	2,150	222,000		
Orange	0,034	10,667	87,630	10160,000		
Mandarin, Clemantine	0,001	0,000	15,500	1802,000		
Citrus	0,003	2,000	19,030	2195,333		
Apple	0,310	265,333	29,860	6348,667		
Pears **	0,400	256,667	7,040	102,667		
Apricots	0,370	384,000	1,960	289,333		
Almonds	10,280	13734,000	0,140	179,333		
Banana	0,160	50,000	8,300	742,000		
Table Grapes	0,022	25,333	21,050	3113,333		
Wine ****	2905,000	0,860	6594,000	1,130		
Table olives	0,000	0,000	0,045	58,000		
Meat	14,350	30000,000	0,093	172,670		
Cow	178,760	70598,000	0,001	6,670		
Sheep and goats	37,060	51468,670	0,051	76,670		
Pig	0,043	345,330	0,000	0,000		
Horses	0,000	0,000	0,000	0,000		
Poultry	0,400	239,330	0,030	60,000		
Rabbits	0,028	158,000	0,010	29,330		
Dairy produce	55,320	145687,330	0,680	1740,000		
cow Milk	NA	NA	NA	NA		
Sheep milk	NA	NA	NA	NA		
Goat milk	NA	NA	NA	NA		
Eggs	0,021	90,000	0,260	78,000		
Fishery products	12,870	34878,000	0,000	0,000		

Table 12 (contd.)

* including watermelon	2002			
** including quince	Imports Exports			
*** NA: Not Available	Quantity Value		Quantity	Value
**** quantity in liter	1000T	1000\$	1000T	1000\$
Durum Wheat	372,530	48052,000	0,000	0,000
Soft Wheat	0,000	0,000	0,000	0,000
Barley	74,780	7134,000	0,000	0,000
Corn	332,630	36885,000	3,470	579,000
Rice	45,650	17345,000	2,160	1286,000
Other cereals	1,480	821,000	0,160	43,000
Total Cereals	827,080	110237,000	5,830	1927,000
Potato	73,700	20,620	130,590	13,610
Sunflower	14,400	5000,000	0,000	0,000
Forage crops	78,370	7500,000	4,400	260,000
Lettus	-	503,144	-	1000,000
Melon & watermelon	8,230	1000,000	5,420	1000,000
Tomatoes	11,320	2000,000	6,450	1000,000
pepper	3,800	2000,000	2,100	290,000
Onion	17,450	2000,000	5,180	446,780
Orange	0,220	30,910	80,790	9000,000
Mandarin, Clemantine	0,060	55,840	12,920	2000,000
Citrus	0,360	0,680	20,374	2000,000
Apple	0,770	1000,000	18,800	4000,000
Pears **	0,450	255,700	6,160	1000,000
Apricots	0,120	131,750	2,660	360,000
Almonds	6,261	11000,000	0,150	93,630
Banana	0,180	648,540	16,460	1000,000
Table Grapes	0,070	43,980	17,320	2000,000
Wine ****	1,000	3528,000	1,300	7678,000
Table olives	0,070	71,250	18,700	26,570
Other	189,101	189474,235	10,946	19596,006
Meat	13,710	28000,000	0,113	285,090
Cow	12,520	25259,610	0,002	5,900
Sheep and goats	0,564	1628,800	0,021	120,000
Pig	0,057	102,582	0,001	3,400
Horses	0,000	0,000	0,000	0,000
Poultry	0,410	715,250	0,080	142,170
Rabbits	0,002	10,670	0,000	0,000
other	0,157	283,088	0,009	13,620
Dairy produce	-	153820,000	-	3147,000
cow Milk	NA	NA	NA	NA
Sheep milk	NA	NA	NA	NA
Goat milk	NA	NA	NA	NA
Eggs	0,010	48,000	0,170	58,000
Fishery products	10,410	29864,000	0,023	70,010

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Table 12 (contd.)

* including watermelon	2003			
** including quince	Imports Exports			
*** NA: Not Available	Quantity Value		Quantity	Value
**** quantity in liter	1000T	1000\$	1000T	1000\$
Durum Wheat	228,700	45227,000	0,000	0,000
Soft Wheat	0,000	0,000	0,000	0,000
Barley	16,900	1699,000	0,000	0,000
Corn	136,550	22874,000	1,000	0,000
Rice	29,660	12422,000	0,800	445,000
Other cereals	3,640	579,000	4,270	1299,000
Total Cereals	415,450	<b>82801,000</b>	<b>6,070</b>	1744,000
Potato Sunflower	75,810	14285,000	109,110	436,000
	10,890	3840,000	0,010	9,000
Forage crops	20,600	13879,000	48,660	7307,000
Lettus	-	264,000	<del>-</del>	1544,000
Melon & watermelon	7,870	2330,000	4,340	480,000
Tomatoes	11,480	2530,000	6,190	782,000
pepper	4,550	1661,000	1,590	232,000
Onion	20,710	2743,000	11,170	902,000
Orange	0,140	157,000	73,860	8546,000
Mandarin, Clemantine	0,018	16,000	13,450	1620,000
Citrus	0,250	104,000	19,260	2081,000
Apple	0,630	397,000	27,880	6112,000
Pears **	0,250	119,000	8,370	1275,000
Apricots	0,580	563,000	1,700	273,000
Almonds	3,630	2554,000	0,058	17,000
Banana	0,350	122,000	17,320	1477,000
Table Grapes	0,130	68,000	32,290	4906,000
Wine ****	1,000	4615,000	1,420	8070,000
Table olives	0,435	283,000	0,010	18,000
Other	1157,160	611745,000	169,160	150154,000
Meat	19,650	38023,000	0,660	1062,000
Cow	18,590	35121,000	0,003	6,000
Sheep and goats	0,430	1084,000	0,020	128,000
Pig	0,080	490,000	0,070	343,000
Horses	0,000	0,000	0,000	0,000
Poultry	0,001	737,000	0,054	555,000
Rabbits	0,000	0,000	0,000	0,000
other	0,550	591,000	0,510	30,000
Dairy produce	-	153199,000	-	3609,000
cow Milk	NA	NA	NA	NA
Sheep milk	NA	NA	NA	NA
Goat milk	NA	NA	NA	NA
Eggs	0,010	37,000	0,120	43,000
Fishery products	12,200	30691,000	0,080	459,000

Table 13 - Agricultural Support by Product, 2001-2003 (US \$ Million).

		2001	2002	2003
1- Wheat				
	Price support	8,16	7,50	7,43
2- Tobacco and Tombac				
	Price support	32,33	38,00	37,80
3- Olive oil				
	Price support	-	1,10	6,60
4- Apple				
	Price support	-	-	3,30

Table 14 - Public Expenditures on Agriculture, 2001-2003 (US \$ Million).

Investment Expenditures	2001	2002	2003
Research-extension <sup>1</sup>	3,98	1,32	3,32
Training	0,40	NA	NA
Market Support <sup>2</sup>	33,00	33,00	33,00
Input Subsidies <sup>3</sup>	8,30	4,20	3,20
Subsidized Interest Loans <sup>4</sup>	12,60	23,36	22,96
Salaries and Compensations 5	8,20	7,80	7,59
Other <sup>6</sup>	40,49	46,60	55,13

Source: original data are from MOA, National Center for Scientific Research, Banque du Liban and Minsitry of Economy.

NA= Not Available.

<sup>1:</sup> values of contracts awarded through CDR for year 2001 and budget of LARI for years 2002 and 2003.

<sup>2:</sup> Export Plus Program of IDAL.

<sup>3:</sup> total value of Subsidized inputs through MOA.

<sup>4:</sup> Source is Banque Du Liban: it represents the sum of the subsidized interest loans and the subsidized interest.

<sup>5:</sup> those of MOA only.

<sup>6:</sup> Total subsidies for Wheat, Tobacco and Tombac, Olive oil, and apple.

<sup>\*</sup> represents budget for iRAL

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Table 15 - Fishery Sector, 2001- 2003.

	2001	2002	2003
Harbour (number)	29,00	29,00	31,00
Fishing Fleets (number)	2800,00	2800,00	2000,00
Fishing Fleets (more than 10 meter long)	71,00	71,00	71,00
Capture (Tonnes)	7395,00	8000,00	8000,00
Capture (billion L.L.)	56,00	NA	NA
Employement (number of fisherman)	6500,00	6500,00	6500,00
Employment (number of fish cooperatives)	NA	30,00	30,00
Employment (number of fish cooperative members)	2514,00	2514,00	2541,00
Pisiculture (ton)	800,00	600,00	500,00
Pisiculture (number of industries)	120,00	120,00	120,00
Consumption (ton )	33000,00	29000,00	25000,00
Imports (tons)	12870,00	10410,00	12200,00
Imports (US \$ million)	34,87	29,86	30,69
Exports (tons)	0,00	0,00	79,00
Exports (US \$ million)	0,00	0,00	0,46

## Abbreviations and Acronyms

BDL	Banque Du Liban (Central Bank of Lebanon)
CDR	Council for Development and Reconstruction
EU	European Union
FAO	The United Nation Organization for Food and Agriculture
GAFTA	Greater Arab Free Trade Area
GDP	Gross Domestic Products
GFCM	The general Fishery Commission for the Mediterranean
GTZ	German Technical Cooperation
IDAL	Investment Development Authority of Lebanon
INSEE	Institut National de la Statistique et des Etudes Economiques
LARI	Lebanese Agricultural Research Institute
LL/LBP	Lebanese Pound
MET	Ministry of Economy and Trade
MedFIsis	Mediterranean Fishery Statistics and Information System
MOA	Ministry of Agriculture
MOE	Ministry of Environment
MOF	Ministry of Finance
NBTT	National Board for Tobacco and Tombac
SME	Small and Medium Enterprises
SPS	Sanitary and Phyto-sanitary measures
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNIDO	United Nations Industrial Development Organization
TBT	Technical Barriers to Trade
VAT	Value Added Tax
WTO	World Trade Organisation