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LEBANON

AGRO - INDUSTRIES

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INTRODUCTION AND BACKGROUND

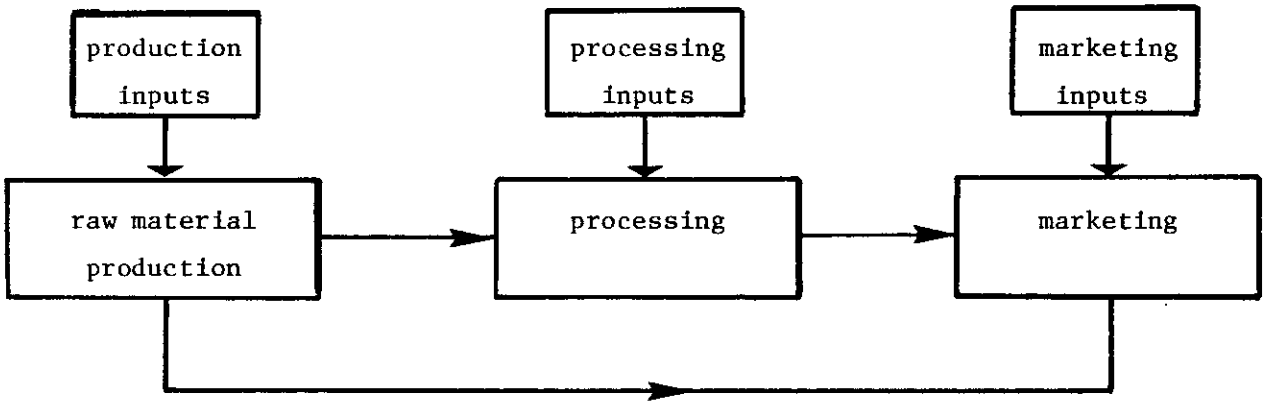
The mission has been asked to look at the current situation and at the prospects of agro-industries in Lebanon. We have understood agro-industries, within the context of the mission, to include all industries that transform agricultural raw material, be this food or non-food items, of vegetable as well as of animal origin. Besides, we have considered some aspects of auxiliary activities that bear directly upon agro-industries, such as the supply of packaging materials, the availability of financing for investment as well as for working capital, and the existence and application of norms, rules and regulations.

Although this may be seen as all inclusive with respect to agro-industries, it should be pointed out that we have limited our observations, conclusions and recommendations to the processing sector of what often is called the agribusiness system and to some crucial input factors into the processing sector, see figure 1. Aspects of raw material production on the one hand, and of marketing on the other hand have been dealt with elsewhere in the project of which this mission is a minor part. Furthermore, we have emphasized, particularly so in our conclusions and recommendations, the role of the public sector vis-à-vis agro-industries in the country. This, while recognizing fully that agro-industrial activity proper, in Lebanon, is the sole domain of the private sector, albeit with a few instances of government support.

This private sector has historically been operating in a free market economy, with limited controls but also with limited support. Central planning and direction of any economic activity is anathema in Lebanon. The price paid by private initiative for this freedom of operation has been curtailment of government support to the minimum possible, exercised in a few instances which were often rather for the protection of consumers than for the support of industries. Past import controls on dairy products can be seen as an example of support for the dairy industry, particularly for its raw material production sector. Subsidies on wheat and to a lesser extent on sugar are meant to benefit consumers, though industry has managed to turn these subsidies indirectly to its advantage.

The events of 1975 have turned the Lebanese economy into a quintessential free market as far as controls, regulations and public sector support are concerned. There is a complete anarchy of operations in the agro-industries observed by the mission. This does not imply that the entrepreneur is entirely free to do what he, or she, wishes. The enterprise is still subject to competition in the marketplace, now often encountered from products made available in the market at prices which bear no relation to actual production and delivery costs, for a variety of reasons. Among the latter, smuggling,

Figure 1 : The Agri-business system



dumping, and the sale of inferior and stolen goods are often mentioned as the main culprits. Apart from this unfair competition in the marketplace, the entrepreneur also faces the fractionation of Lebanese society into a large number of isolated units whose communications are limited. Thus, he may experience problems in e.g., the availability of labor or in raw material supply. For all intents and purposes, barriers now exist within the country against the free movement of people, goods and services. This creates inevitable losses and reduces overall efficiency of operations. Thus, in spite of an anarchically free market, the entrepreneur does not any longer have the inherent protection of laws and regulations enforced on behalf of his own society and he has to operate within a politico-economic system that has become fragmented and hence inefficient.

We have come to the conclusion that the problems faced by agro-industrial entrepreneurs are not technical and are only marginally economical; they have political roots. The country has more than sufficient human and financial resources to overcome the immediate operational problems of its agro-industries. However, no industry can work without a framework of basic law and order. The norms and regulations that are necessary for the orderly operation of agro-industries, even in a free market economy, are all on the books. However, objective and consistent enforcement is presently not possible. This requires authority and thus is a political problem.

The mission has tried to do its work within this reality of the Lebanese situation. We have first considered a number of agro-industries that are still viable, that are often indeed very profitable, in spite of the absence of law and order. Then, we have suggested a moderate government role with specific activities that can be considered legitimate public sector responsibilities even by the most ardent supporters of free enterprise. The suggested activities are all meant to foster agro-industrial rehabilitation and development. However, we have not assigned an active role to the government to shape the future direction of agro-industrial development in the country. We see the government merely as an active supporter of developments created as a result of prevailing conditions. This, we understand, has been the past role of the public sector in Lebanese society, a role which is not now expected to change fundamentally. Assignment of any more active role to government is, we firmly believe, not pragmatic under prevailing conditions in the country.

CONCLUSIONS AND RECOMMENDATIONS

1. Agro-industry in Lebanon is entirely in the domain of the private sector. Government support for this industry has been, and is, limited. In the spirit of a free market economy, public sector support and encouragement for the development of agro-industries has at best been passive. It is mostly in the form of selected protection against imports and as grants of tax incentives for developmental purposes. Active measures, such as assistance with research and development or concessionary financing of investments have been almost absent. There is no broad, coherent, development policy with respect to agro-industries.

2. Lebanon has a quitessential free market economy. However, it is not a fair and competitive market, mainly because of the absence of a moderating government role. There are many distortions that limit the operation of a true market economy. Dumping, stolen and inferior goods provide unfair competition in the market; the country is subdivided into small enclaves whose communications and interchange of goods and services are restricted; operating conditions for industry are very uncertain, security is a serious problem, etc. In essence the entrepreneur does not enjoy the basic protection of society, without which a competitive market economy cannot function well.

3. A moderate role is suggested for government to foster agro-industrial rehabilitation and development. It is understood that government will only be able to exercise this role once its authority has been re-established nationwide and law and order prevail. In the spirit of a market economy, government should be asked to support actively only those developments that emerge as results of prevailing conditions. It is not suggested that government should take an active role in shaping the future direction of agro-industrial development in the country. Suggesting such a role appears to us unrealistic in view of the role of government in Lebanon in the past, a role that is not expected to change fundamentally according to present authorities at the policy making level.

4. The current state and type of agro-industries in Lebanon are largely a result of the continuation of developing trends that could already be discerned prior to 1975. The changes in Lebanese society as a result of the events of 1975 and 1976, particularly the emergence of civil disobedience and insecurity, have accelerated development trends in certain industries and have slowed the growth and diversification of other industries. The events proper have not resulted in widespread plant closures or discontinuations. However, the continuation of present unsettled conditions may lead to further slow down and to eventual discontinuation of operations at a number of

industries whose long term survivial depends upon a normal framework of societal rules and regulations.

5. The link between agro-industry and raw material production has always been weak in Lebanon. Much of the processed material of such industries as vegetable oil production, animal feed milling, tanning, dairy and even canning has traditionally been imported. If any, this situation has been exacerbated after 1975, partially because of disruptions in agriculture and partially because of the vigorous growth of the fresh products market in neighboring Arab countries. It might be argued that local processors should be enticed to use more domestic raw materials, as a means to support agricultural development. On the other hand, Lebanon's free market economy has, sofar, managed to supply the local consumer with, mostly imported, products at very competitive prices. Lebanon's importers skilfully take advantage of other country's dumping, of the EEC's dairy mountain, of Eastern European countries' need for convertible currencies, etc. It is thus a matter of policy to decide if the consumer in Lebanon should be forced to subsidize domestic agriculture by buying its products and foregoing lower priced imports. Past experience with government support, notably in the sugar and flour milling industries, does not recommend widespread subsidies, protection or support for any segment of the county's economy.

6. The physical destruction of plant in the agro-industrial sector, as a result of the events of 1975 and 1976, has been limited. More serious and more widespread have been the losses of inventories and of movable assets, such as cars, trucks, furniture, portable equipment, and the like. Looting and pilferage have been rampant. The most severe setback for the industry as a whole, though, has been the disintegration of the very fabric of society, prolonged periods of lawlessness and continuing insecurity.

7. As far as development prospects are concerned the agro-industries in Lebanon to-day can be grouped into 3 main categories :

a. Those that were destroyed or those whose owners abandoned the industry. The number of discontinued business, in this category, is limited and is not confined to any particular activity.

b. Businesses that are still operating, but at less than their capacity, with a definite halt to further development. These industries are kept going by their owners in spite of unfavorable operating conditions, in the hope of a better to-morrow. The industries in this category will probably gradually disappear unless conditions improve. The immediate impact of the 1975-1976 hostilities has been limited, the real loss to the country will be felt slowly.

c. A group of industries is buoyant in spite of prevailing conditions, indeed sometimes thanks to the existing situation. Bulk processors of imported raw materials with export markets for their products are prime examples, e.g. soya bean crushers or producers of fruit drinks.

8. The fruit and vegetable canning industry will have to be based largely on imported raw materials and will have to produce specialty products. The development trend towards this mode of operation could be discerned before 1975; it has definitely been accelerated as a result of the events of 1975 and 1976. However, this industry needs assistance with the development of a range of specialty products as well as with its long term marketing, both in Lebanon and abroad. A promising start is made with the production of a few unsophisticated local ethnic, products. Further assistance to this development appears to us to be a legitimate government role, even in a free market economy such as the one in Lebanon.

9. In order to be effective in such support schemes, the government will have to improve its agility and way of operation. In order to gain credibility with the private sector, the government cannot continue its actions as it has in the past, for instance, with respect to the wheat growing support scheme. The 1979 support price for wheat purchases was announced three months after the harvest was in and the wheat had been marketed.

10. An overhaul of the wheat subsidy program is urgently needed. The current cost to the government, of this program, which is essentially a direct subsidization of bread, can be estimated at approximately 160 million Lebanese pounds yearly. If current trends persist, the government soon will have to subsidize millers' operations directly, over and above the subsidy to wheat purchases. Furthermore, it would appear that the licensing of eleven new wheat mills requires the liberalization of wheat imports. New milling capacity can only be used for the custom milling of export flour and other products, the raw material for which has to be imported. Existing milling capacity is more than sufficient to supply local demand for flour.

11. Central abattoirs that do custom slaughtering for a fee, are economically and socially justifiable. They will allow more complete use of all animal products and by-products, and will provide a means for sanitary control of the slaughtering operations and of the important first step in the meat trade. Since most meat consumed in Lebanon is imported on the hoof and is slaughtered locally, increased efficiency in slaughtering can have very substantial national benefits.

12. The poultry industry was one of the most flourishing agro-industries in Lebanon before 1975. Private initiative, supported by well planned and executed government action managed to rebuilt this industry within five years. Public sector support to this industry is probably the most effective government action with respect to agro-industries that was encountered by the mission. Its very success merits further study, in order to understand, and hopefully emulate, this example of efficient government action even under the trying conditions that followed the events of 1975.

13. Vegetable oil extraction and the production of oil seed meals for animal feed are a thriving industry in Lebanon. Soon, the country will be self sufficient in vegetable oils, mainly based on the local extraction of imported soya beans.
The competition between soya oil and other oils, mainly cottonseed oil, will remain strong initially. We expect, though, that the low cost soya oil will gradually erode the market for other oils. Sesame and olive oil will always retain a position in the market, albeit a minority one, because of their special flavors and their place in the Lebanese diet.

14. We expect that the important tanning industry will not regain its once eminent position. Problems of laborcosts and of environmental considerations, that were already felt before 1975, have been exacerbated and their emergence has been accelerated by the events of 1975 and 1976. Producers of specialty products, though, will probably be able to capitalize on their technical know-how and marketing acumen and may be able to maintain their positions as important suppliers to world markets.

15. Good quality packing material is available to Lebanese producers, with the possible exception of wooden crates for fruit exports. Small production, though, results in rather high costs, because the industry cannot take advantage of its inherent economies of scale. The production of glass jars suffers particularly from small orders and the glass manufacturer is thus reluctant to produce for the small local canner. Standardization of glass jars and pooling of orders might be a solution for this particular input industry. Also, government might support research and development work on the utilization of retortable pouches for the canner's specialty products. Retortable pouches may be, for Lebanon, a low cost alternative to the can, particularly for the canner who produces small lots of different products.

16. Traditionally, commercial financing for industrial ventures has been available in Lebanon. This applies to investments as well as to working capital. Government involvement in financing of enterprises with a developmental character, either because of the nature of operations or because of their location, has been very limited. The total outstanding portfolio of reconstruction and development loans

of the main industrial development bank is 200 million Lebanese pounds. Loans classified as development related financing are only 30% of this total. The figures mentioned here refer to all industries, not only to agro-industries. We have concluded that Lebanon does not have a program nor a policy to support agro-industrial development actively.

17. Three areas of activity are seen as legitimate public sector roles with respect to agro-industries in a free market economy such as found in Lebanon :

a. Enactment and enforcement of a body of law relating to control and regulation of the industry. Regulatory control should be exercised with respect to product fraud and to maintain an orderly competitive market structure.

b. The government should have a program to support a limited number of selected new and existing industries. Support should only be given when it is clearly justified economically and socially.

c. The government should facilitate product development and the design of long term strategies for growth and market penetration of those agro-industries that have demonstrably the highest potential.

AGRO-INDUSTRY IN LEBANON

Time constraints did not allow the mission to make an exhaustive study of agro-industries in Lebanon. Besides, this is probably not necessary for the advisory and guidance role of the project within which the mission operated. We have found, though, not surprisingly, that much of the current existence and condition of agro-industries can be understood and explained as a logical consequence of the situation prevailing before the events of 1975. Consequently we will first describe briefly the situation of the industry in the early seventies, as an introduction to the current state of affairs.

A. A RETROSPECTIVE

In 1970, there were approximately 900 establishments operating in food, beverage and tobacco processing. Among them, they employed more than 11,000 workers and had a combined output of almost 350 million Lebanese pounds. By 1970, agro-industries accounted for about one third of the output of the manufacturing sector of the economy. Although expanding rapidly, the industry was in an early stage of development. Between 1964 and 1970, employment increased at a compound annual rate of 19%, while output increased by not more than 9% annually. Expansion of the industry was thus found obviously in labor intensive operations. This is typical for agro-industries in early stages of development. As in most other industries, growth beyond the initial stages tends to become more and more capital intensive. We should probably voice a word of caution about the number of establishments in this sector. They include a large number of very small family type operations, among others several hundred neighborhood bakeries. The number of companies employing more than 25 persons probably did not exceed sixty. Thus, agro-industrial activity is not as large as it might appear at first glance. On the other hand, agro-industry is among the oldest industrial traditions in the country. The Phoenicians sold Lebanese wines, olives and olive oil all along the Mediterranean coasts.

Agro-industry was, and is, by and large a private sector undertaking. The government enacted the usual quality and sanitary standards, largely to protect the consumer. Enforcement of these standards, though, was often lax and sometimes not existing. The government also intervened in the marketplace in a few isolated instances to protect specific consumer or producer interests. Subsidies on wheat as a means to reduce the price of bread, a staple in the Lebanese diet, and operating subsidies to sugar refiners are the best known examples. The dairy industry had a measure of protection through import duties on most dairy products and through the requirement to buy fresh, local, milk as a counterpart to imports of milkpowder.

Imports of foodstuff and other raw materials for agro-industries into Lebanon have always been large. In comparison, its exports of manufactured products from the country's agro-industries have been modest, see table 1. Not surprisingly, then, the country's agro-industry initially aimed to substitute for some of these imports. Unsophisticated products such as marmelades were among the first to be produced. Other products that were either expensive or difficult to transport followed suit: frozen meat and fish products are the best examples. Industries that find it more difficult to compete with imported products were established rather recently: vegetable oil extraction and the manufacture of margarine are an example of these newer industries. Large scale processing of imported raw materials for re-export is an activity that grew with the rapid expansion of Lebanon's manufacturing industry in the late sixties and early seventies. We will show later that this expansion, at least as far as agro-industries are concerned, continues unabated, in spite of the events of 1975 and the subsequent collapse of the regulatory and control infrastructure. Tanning of hides and skins, soy bean crushing and the animal feed industry are probably the best examples of large scale custom processors in Lebanon, working with imported raw materials and catering for export markets. These markets, by the way, are both distant and sophisticated, such as the Western European market for Lebanese leather, and nearer and less sophisticated, such as neighbouring countries for animal feed and vegetable oils. By nature the incipient agro-industry in Lebanon, in the sixties, was unsophisticated, with small scale enterprises, who were fairly labor intensive and whose wages were thus on the low end of the industrial wage scale in the country. Added value in this industry was small. Only recently, i.e. in the seventies, have emerged the larger, capital intensive processing industries where salaries are competitive with other sectors of industry and where added value is high.

The link between agro-industries in Lebanon and the country's agriculture has always been weak. Important activities such as dairy and meat processing have consistently suffered from a lack of local raw material supply. The thriving animal feed industry nver had appreciable domestic supplies of main ingredients. On the one hand, natural conditions do not allow for competitive, i.e. low cost, production of either milk or beef. On the other hand, Lebanon's laisser-faire economy has always been accessible for often very low cost dairy products from the subsidized EEC dairy mountain. Meat is bought ad-hoc, often in distressed lots from where-ever it can be obtained cheapest. Indian beef, hardly a commodity of wide repute, is regularly imported into Lebanon. Thus, local production could simply not compete with imports for the bulk of requirements. Some specialty products, such as local yoghurt and cheeses, have been able to obtain a sufficient price, even when prepared from expensive domestic fluid milk, since the consumer is quality conscious with respect to these products. Consequently

Table 1 : Lebanon, exports of agro-industrial products and total exports of manufactures (000' L.L.)[1]

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total exports of manufactured products	208,308	261,773	245,449	246,342	826,492	823,893	n.a.[2]	826,152	772,387	1,262,988
Agro-industrial exports										
Food products	20,978	22,301	21,946	25,654	58,310	30,434	n.a.	38,648	26,325	184,185
Meat	21,647	29,212	46,015	65,054	88,528	56,161	n.a.	43,805	35,779	32,583
Beverages	502	429	265	1,003	389	380	n.a.	2,543	37,268	7,190
Plywood	6,610	10,641	19,191	17,078	5,935	4,585	n.a.	2,813	3,318	4,643
Hides and skins	257	668	5,620	17,333	31,107	22,983	n.a.	22,713	24,630	24,571
Sub-total :	49,994	63,251	93,037	126,122	184,269	114,543	n.a.	71,874	127,320	253,172
Agro-industrial exports as % of total exports of manufactures :	24%	24%	38%	51%	22%	14%	n.a.	9%	16%	20%

1) It is likely that both total exports and agro-industrial exports are underestimated because of incomplete reporting and because of the arbitrary definition of agro-industries.
2) Data for 1976 are not available.

Source : L'Orient-Le-Jour - special industry section of its edition of March 27, 1980.
Data based on information from the Ministry of Industry.

the government could enact, in the sixties, a regulation that obligated counterpart purchase of domestic fresh milk as a condition to obtain import licenses for milkpowder. The latter also carried a moderate import duty. This government action, made possible by prevailing economic conditions, is widely hailed as an instance of government support for domestic infant industry. The price differential between products made from local fluid milk and imported milkpowder, and reportedly also the uncertainty about quality and integrity of local dairy products, had led the majority of Lebanese households, by some counts more than 60%, to produce their own dairy products from imported milkpowder. The latter is readily available from well-known international manufacturers, in all retail grocery shops in the country.

Lebanon's fruit and vegetable processing industry never had sufficient domestic supplies of raw material at competitive costs, even before the rapid expansion of the markets in the Gulf countries for fresh produce. As elsewhere the domestic canning industry in its early stages, had to rely upon highly seasonal overflow of the fresh produce market. This was an uncertain source in quantity as well as in quality. Inevitably, the industry often had to accept what could not be sold fresh, not only overflow, but also refuse. Since it is not possible to produce a good quality canned product from an inferior raw material, this industry was caught in a vicious circle. Its market did not expand rapidly enough because its products were unattractive and since its markets remained small it could not enter into contracts for the growth of industrial varieties of products which could have boosted its raw material supply in both quantity and quality, at the same time lowering its costs. It is the classic vice in which the incipient canning industry in any country is caught. Only a concerted effort by the processors to introduce large scale growing of high yielding industrial varieties can get the industry out of this bind. Lebanon's canning industry suffered from the additional disadvantage that fresh fruits and vegetables tend to be available during most of the year. Its natural market is thus the urban housewife and institutional kitchens looking for convenience in food preparation, rather than the housewife who is deprived of fresh produce during a long winter, as is the case e.g. in Northern Europe.

Paradoxically, there were a number of agro-industrial activities that suffered or could have suffered from an oversupply of raw material. This was the case in most years with sugarbeets; apples and slaughter offal. The sugarbeet processing plant had a nominal throughput capacity of 65,000 tons of beets, while supply averaged 110,000 tons yearly. Apple processing was never undertaken on any scale, in spite of increasing availability of off-grade apples culled from export shipments to neighboring countries. The processing capacity for slaughter offal was inadequate, partially because of the problems and costs inherent in collecting this material from the many, scattered, small butchers.

It should thus not come as a surprise that due to the dearth of local raw materials, agro-industries turned increasingly to imports as a means to fullfill their basic supply needs. Flour mills, chocolate and confectionery producers, animal feed manufacturers, breweries and vegetable oil expellers, except olive oil pressers,are among the best known users of imported natural raw materials. A number of manufacturers resorted to artificial substitutes for non available natural raw materials. Manufacturers of fresh drinks based on essences and aromas are probably the best known examples of this group. It is interesting to note that fruit drink manufacturers have used concentrates of those natural juices that were always unavailable in Lebanon as a basis for fresh drinks, particularly pineapple juice concentrates. Initially these manufacturers used locally available natural juices, mainly orange juice, to the extent feasible and complemented their production program with imported concentrates. Their plants were thus well prepared to switch entirely to imported concentrates, including orange juice concentrates, when this became attractive for reasons of production costs. As we will see later, fresh Lebanese oranges, with the Gulf states' market as their alternative, have now become far more expensive, as a fruit drink base, than imported orange juice concentrate from as far away as Brazil.

By and large, Lebanon's agro-industries were still in the early stage of development when the events of 1975 interrupted their growth temporarily. It was a mixture of small, artisanal activities with some modern, though still modestly scaled, plants. Overall management and operations were weak. Newer, larger, plants often operated well below their nominal capacities due to the inability of its owners to see, plan and manage their enterprises within the perspective of an interrelated agribusiness system. There was hardly any forward planning to secure raw material supplies, marketing strategies linked to planned growth of the business were not thought out. Operations and production were largely ad-hoc, oriented towards a restricted domestic market. Exports, if any, mostly came by surprise. Notable exceptions to this mode of operation were two onion drying plants in Zahlé, several fruit juice manufacturers in Beirut, the chicken breeding operations in the Be'eka, tanning, and the treatment, sizing and classification of sheep and goat intestines for re-export.

B. THE CURRENT SITUATION

Physical destruction of processing plants and facilities during the events of 1975-1976 and again during 1978, is not as severe among agro-industries as one is often given to believe. A number of plants outside the Beirut area are completely untouched. A few factories that were located in areas of consistent heavy fighting have indeed been severely damaged. However, many plants visited by the mission showed remarkably little internal damage, i.e. to machinery and in-

stallations, in spite of obvious substantial external damage to façades, windows and roofs. The hostilities have mostly been fought with small calibre weapons, and with a limited amount of explosive ordnance. There were no air bombardments, no sustained use of incendiary weapons, phosphor granates or napalm. In other words, weapons designed for mass destruction of buildings and other structures were not used. Far from belittling the appalling results and the human suffering of Lebanon's internal war, we feel nevertheless that damage to agro-industrial production facilities has been limited. Our observations appear to be in line with the results of a sample survey of 32 agro-industries conducted recently.[1)] Fifty three percent of surveyed plants were unhurt, only 28% had suffered heavy physical damage. Of course, the damage to inventories and losses due to pilferage have probably been much higher.

However, of much greater import than the physical damage, has been the disintegration of economic infrastructure and the virtual disappearance of institutional support and protection. The country is effectively split into a number of regions who, although still interdependent to a degree, nevertheless limit the free interchange of goods, services and people between them. Hidden and not so hidden barriers have created artificial inefficiencies for the operation of agro-industries. For instance, raw materials cannot any more be obtained from a certain area, since it is under the control of a group that is hostile to the group that exercises power in the area where the plant is located. For the same reason products cannot any more be shipped to certain regions. Labor that used to come from a certain part of the city cannot any more travel to the plant, etc. The security problems created through the absence of law and order are particularly severe. Farmers are unwilling to grow products that can be pilfered easily; chicken breeding is a case in point. Truckloads of merchandise just disappear. Plant owners have to pay protection money to racketeers in order to stay in business. Sales credit has been reduced to a minimum, thus increasing working capital requirements of the distributor, wholesaler and retailer. Smaller lots are purchased, increasing distribution costs, etc. These problems are not only faced by plants that operate exclusively on the domestic market, but by exporters as well. A,once large, exporter of sheepskins and sheepskin products told the mission that his clients in Western Europe did not accept any more the previously customary delivery in let's say 6 to 9 months for custom ordered merchandise. These orders used to be paid with letters of credit payable against shipping documents, and constituted a major source of the firm's working capital, since they could be discounted. Given the uncertainty of the Lebanese situation this particular operation's clients did not wish to run the risk to be without merchandise in 6 to 9 months. Hence they were looking for

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1) by IDCAS -

other sources of supply. The only way for the Lebanese enterprise to maintain a foothold in its traditional market was to establish its own wharehouses in Italy and Germany. In other words, this firm now has to sell from stock and has to finance its entire finished goods inventory by its own means. Worse, the entire business risks inherent in the current situation in Lebanon are now borne by the enterprise. Not surprisingly, this firm only operates at about 25% of its nominal capacity, barely sufficient to hold on to the most important segments of its market. Working at 100% of capacity would require an additional capital of around 5 million Lebanese pounds for its in-process and finished goods inventory alone. A large portion of this inventory, and hence of the firm's investment, would be fully at risk with respect to conditions in Lebanon. The owners will not and cannot take that risk. Here is an enterprise which typifies the situation of many operations wo are, what might be called, in a holding pattern. They keep operations going in the hope of a better to-morrow. However, this static situation gradually erodes their market as well as their competitive position because of a lack of innovation and modernization of plant. The segment of agro-industry that is in these conditions is thus slowly dying. Contination of current conditions will most likely lead to the complete disapperance of an important segment of Lebanon's agro-industry.

Most remarkable and often astounding is the flexibility and agility with which other industries, less dependent upon current conditions, have recovered and indeed are growing. Most typical for this category are those enterprises that import raw materials in bulk and export finished products to Lebanon's natural hinterland, the Arab countries. Lebanon's ideal geographic location at the end of sea routes from main raw material suppliers and at the beginning of increasingly accessible overland routes to growing Arab markets remains a key factor. However, the unhindered free enterprise system and the continued availability of capital are other complementing factors toward maintaining Lebanon's position as an attractive, though not longer ideal, location for this type of export oriented processing industries. Soya bean crushing, animal feed production, and the manufacture of fresh drinks from fruit juice concentrates are typical examples of this category of industries. It should be noted that there have been no revolutionnary changes in the type and mix of agro-industries in Lebanon before and after the events of 1975. Changes are rather in development prospects and in actual current development of various industries, changes brought about by the changes in the Lebanese economy and society. Thus, the development trend of agro-industries that could be discerned prior to 1975 continues, albeit with shifts in emphasis as compared with what might have been. For instance, the fruit juice industry has now shifted entirely to imported concentrates, discontinuing the use of fresh juice from local fruits. The trend towards concentrates was already existing before 1975; the events merely precipitated the total switch over. The canning industry has accelerated

its move towards the production of ethnic Lebanese, and other Arab, canned products from imported raw materials. Again, this trend towards production of specialized products existed prior to 1975. The virtual unavailability of local raw materials since then has speeded the move. Security, scarcity of agricultural labor, dislocations of farmers, and the rapid growth of Gulf country markets for fresh fruits and vegetables have all contributed to this development.

Recapitulating we can distinguish three main categories of agro-industries in Lebanon to-day :

1. - First is a limited group of companies that were damaged beyond repair or whose owners left the country. We have not found any particular agro-industrial activity that was made impossible as a result of the events of 1975. Plant closures and discontinuation of production is distributed randomly among all types of plants.

2. - There is a substantial number of plants whose activities depend to a considerable degree upon what, by want of a better definition, is mostly called normal conditions. This refers here particularly to the enforcement of rules and regulations pertaining to production and trade and to basic law and order. The position of industries in this category is increasingly precarious; they will not be able to maintain the current conditions indefinitely. We have previously referred to industries in this group as being in a holding pattern. Export oriented tanneries, poultry processors, some dairies that require fluid milk, and margarine and vegetable oil manufacturers for the domestic market are examples of industries in this group.

3. - Finally there is a group of, mostly large, enterprises that are thriving in spite of, and sometimes thanks to, current conditions. These industries can be grouped in three categories as follows :

    a. Bulk processors of imported raw materials whose products are largely exported; soya bean crushers, exporting oils and animal feed mixtures, integrated with flour mills are the best example.
    b. Industries that produce consumer articles for the domestic market, using imported raw materials. Eighty-five percent of the dairy industry, meat packers and fresh drink producers are examples. Often these industries take advantage of current lax enforcement of custom's regulations, to import dumped or inferior raw materials, virtually elimi-

nating any competition from users of domestic raw materials. The absence of quality control and public sector policing coupled with the lack of domestic competition has led to serious abuses in many industries. Regularly, cases of severe adulterations, food poisoning and other malpractices are reported. Because of the linkage between processing and raw material production, food processor's understandable preference for low cost, often smuggled, raw materials, hampers the reconstruction of agriculture. This is particularly serious in the dairy industry. Thus, some agro-industries are clearly thriving because of an unscrupulous flouting of all rules that were designed to protect both the industry and the consumer.

c. A limited number of industries, mostly canners and a few producers of specialty items such as flower's water and essential oils, are doing well because circumstances forced them to accelerate development and production of items with which they are inherently competitive. The most obvious examples are canners of such products as hommos téhiné and baba ganoushe[1)], and producers of exotic essential oils used as flavoring agents in oriental dishes.

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1) Popular hors d'oeuvres, essentially vegetable dips. Hommos téhiné is crushed chick peas with sesame oil and lemon; baba ganoushe is based on crushed egg plant.

SELECTED ACTIVITIES

Comprehensive current information on agro-industries, i.e. on type, location, size, capacity etc., is not available in Lebanon. The mission has investigated the possible existence of data at all of the usual public and private sector institutions. The results are severely limited and fragmentary. Consequently, an understanding of the present condition and of expected development trands in this industry had to be based upon plant visits. The mission has visited 24 different plants and company offices in all major subsectors of agro-industrial activity. The selection of companies visited has been such that we believe to have seen a representative sample of Lebanon's agro-industry. Comments made further on are primarily based upon the results of these visits, complemented by some recent work done on particular industries, mostly by or through F.A.O.

A. AGRO-INDUSTRIES

1. Fruit and vegetable processing

Lebanon used to have a fledgling processing industry for fruits and vegetables. At least 5 fruit juice bottlers used a combination of locally pressed fresh juice and imported concentrates as bases for canned and otherwise packed fruit drinks. To-day, this industry employs imported concentrates, essences and aromas exclusively. There is a wide variety in product quality and integrity, from products that are manufactured from predominantly natural ingredients to products that are based on essences, chemicals and artificial aromas. Preservatives are used extensively. What will soon be the largest plant in the country, Bonjus in Beirut, now produces 15 to 20 tons of fruit juices daily, packed in tetrapak as well as in 9 ounce cans with aluminum pop tops. A manufacturing plant for plastic bottles is under construction, so is a large extension of the juice plant proper, and an independent water supply from newly dug wells. The company also has a dairy operation, producting locally popular yoghurt type products[1] and ice cream, as well as a tomato concentrate plant. Bonjus has extensive storage space for frozen products, i.e. for its main raw material, imported juice concentrates, and for its ice cream. This is definitely a thriving operation. So far, its market, is mainly domestic. The long term uncertainty of export markets in neighboring Arab countries for Lebanese products, have made management cautious about expansion of production solely for export.

Another fairly large plant is a joint venture with Libby's. This plant produces 30 to 40 tons of juice daily, all in 9 ounce cans with aluminum pop tops. Ketchup is produced from imported raw materials.

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1) Lebne and Laban

Seventy percent of Libby's production is sold domestically, the remainder, 30% is exported. Again, this industry appears to do well.

Lebanon used to have three very successfull onion drying operations in Zahle, in the Be'eka. Among them they were able to produce up to 20 or 25 tons of dried onions daily. The bulk of production was sold to large European processors, mainly to the familiar manufacturers of dried soup mixes, Knorr and Maggi. Apparently, the product must have satisfied these discriminating clients. This industry, though, is now inoperative because of its inability to find sufficient onions at prices it can afford. Dried onions are offered to-day from, for instance, Egypt at about US$ 1,500/ton. Dried onion yield is approximately 10% of the fresh product. Thus, raw materual cost alone in dried onions cannot be more than a maximum of US$ 150 per ton or 15 cents (53 Lebanese piastres) per Kg.This calculation does not take into account the substantial costs of drying and other expenses. Total onion production has declined as a result of the disruptions and insecurity caused by the events of 1975 and because of the competition from other crops, not in the last place from hasjish. Actually, Lebanon imported 16,000 m.tons of onions in 1978 and 8,000 to 9,000 m.tons in 1979, mainly from Egypt.

Lebanon's vineyards are of biblical fame. To-day, approximately 23,000 has. of producing vineyards are in existence. Eighty percent of the production consists of tablegrapes that find ready markets in and outside the country. The rest is used for wine, of mediocre to good quality, and for distillates, particularly arak[1]). The collapse of Lebanon's tourist industry has reduced the local market for its wine industry. Neighboring countries offer only very limited export opportunities. Quality and quantity of wines offered do not facilitate the opening and maintenance of an export market in either Europe or the United States. However, Lebanese wines may be competitive on price with other similar offerings in these markets e.g. from Algeria, Argentina, Chile or South Africa.

Lebanon used to have a fruit and vegetable canning industry that processed the overflow of the fresh produce market, much as this industry started elsewhere. With the possible exception of onions and may be of okra, there was no production specifically made for industrial processing. There were no varieties introduced with the particular color, texture or consistency that produce superior canned goods. What was canned, was what could not be sold fresh. Supply to canneries was thus erratic in timing, quality and quantities. It is our understanding that by the mid seventies, a few canners had reached a stage of development, others may say of frustration, that made them willing to venture into raw material production themselves. We have

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1) Anis-based hard liquor with 53% alcohol, not unlike the Greek ouzo, or the French Pernod and Anisette.

seen this same development trend in other countries and we have become firmly convinced that active involvement of processors in agricultural production is the necessary final stage in the development of a healthy and competitive canning industry. Unfortunately, the events of 1975 have put a halt to this development. Raw materials are scarcer and more expensive than ever before; industrialists are far from considering to venture into the unknowns of agriculture. Thus, the local production of canned and pickled vegetables has been greatly reduced. Some jams and marmelades are still produced, but their sugar content is far above what would have been acceptable before 1975. Still, local jams enjoy a quality image that allows them a price which is double the price of similar products imported from Balkan countries.[1] This in spite of the fact that, reportedly, the imported product has a higher fruit content and thus lower sugar level than the presently produced domestic jam. As mentioned before, the Lebanese canning industry has accelerated the production of what are called in the U.S. ethnic products, in this case typical Lebanese and Arab goods. Many of these products are based on imported raw materials: fava beans from Canada, chick peas from Turkey etc. For the time being, there is no competition from the large transnational producers, and Lebanese manufacturers appear to have a comfortable niche in a new market. This production of specialty items may indeed be the future for Lebanon's canning industry. However, in order to be ultimately successfull this industry needs product development with respect to, not only market demands, but production requirements; it needs more sophisticated industrial management and it needs marketing effort with a long term perspective. With all due respect for the legendary commercial ability of the Lebanese, their mercantilistic acumen has to be adapted to the requirements of sales and production of manufactured goods. If they are not able to do that, European and American specialty food producers will invade and capture the market for ethnic Arab products. Any supposed Lebanese exclusivity on the production of these products is, in our opinion, a myth. Here may be a legitimate and potentially fruitful public sector role to assist the Lebanese canning industry to hold and further enhance its current position in specialty oriental foods.

2. Milling and animal feed production

Lebanon produces only somewhat more than 10% of the wheat consumed in the country. Wheat production in 1980 is forecast at 40,000 m.tons, unchanged from last year. A support scheme for wheat production has been in operation in Lebanon since 1962. It includes seed distribution at subsidized prices, guaranteed minimum buying prices and purchase guarantees. The events of 1975, though, have interrupted this program. In late October of 1979, three months after har-

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1) 4 to 5 L.L. for a 16 oz. jar of local apricot jam, against 2 to 3 L.L. for the imported product.

vesting was completed and most of the production was marketed by the producers, the government announced the 1979 wheat support prices. Planned imports are 316,000 m.tons, against 322,000 m.tons in 1979. Total wheat consumption in the country is thus currently around 356,000 m.tons yearly. The majority of wheat imports is purchased by the Lebanese Cereals and Sugarbeets Office (CSO) following international tenders i.e. at prevailing worldmarket prices. Last year, commercial purchases amounted to 305,000 m.tons, or 95% of total imports. The rest was donated. Commercial wheat flour imports are small at about 3,000 m.tons yearly.

Lebanon also produces 6,000 to 7,000 m.tons of barley and about 2,000 m.tons of maize per year. The rest of its substantial feed grains demand is imported, 325,000 m.tons in 1979. Forecasts for 1980 predict total feed grains imports at 325,000 to 350,000 m.tons. Yellow maize constitutes usually two thirds of these imports and barley the rest. Well over 50% of feedgrains is re-exported, mostly incorporated in feed mixes, and goes to neighboring Arab countries. Local soy bean crushing provides a rapidly expanding supply of high protein soy bean meal, a basic ingredient for poultry feed.

Since 1971, commercial wheat imports are handled exclusively by the government. The CSO distributes the wheat to the eight operating mills in the country, all located in Beirut. The combined milling capacity of these mills is a nominal 30,000 m.tons monthly, or 360,000 m.tons per year. Current milling rates are about 25,000 m.tons monthly, equivalent with an overall capacity utilization of around 80%. Small artisanal and village mills process an appreciable portion of the local production. Combined wheat storage capacity at the mills does not exceed 50,000 m.tons, approximately two months supply at current milling rates. The country depends for grain storage largely upon its main silo in the port of Beirut.

The government's wheat subsidy program aims at maintaining unchanged the price of flour and hence the price of bread, a main staple in the Lebanese diet. The official bread price is 80 piastres per Kg., the actual price is 135 piastres per Kg. The approximately 1300 bakers in the country refuse to be held to the official maximum price. The government's mechanism to achieve a stable low bread price is to supply the flour mills with wheat at a fixed, subsidized, price, currently US$ 77 per m.ton delivered in bulk on truck in the port of Beirut. All mills are allowed the same milling margin and have to sell flour and bran at fixed prices. Flour has to be sold to regular, designated customers. Officially allowed milling margins, i.e. perceived costs of operations of the mills, have increased gradually. Thus, the price of wheat to millers had to be reduced periodically in order to maintain a constant flour price. Indeed, the wheat price to millers has been reduced from US$ 90 per ton in August of 1977 to US$ 77 per ton to-day. Since it is likely that this trend will persist

in an inflationnary economy, the government may soon face the necessity of outright subsidy to miller's operations, over and above free delivery of wheat. Table 2 shows recent estimates of the cost of this subsidy program as a function of assumed salesprices of bread. Apart from the direct cost to government of this subsidy program, the execution mechanism of the subsidy policy creates substantial opportunities for abuse. A magnitude of the incentive for abuse can be judged from the difference in price between wheat (US$ 77/m.ton) and let's say, barley (US$ 220/m.ton) as faced by the wheat miller who, most often, also produces animal feed. It should come as no surprise that by conservative estimates at least 25,000 m.tons of wheat disappears yearly into animal feed. The ways to achieve that are multiple. All mills are considered to have the same operating costs, the same operational efficiency and thus the same milling rates and losses. This, of course, is not true in practice. The industry will try to paint the darkest picture as far as efficiency and losses are concerned. This increases both the milling cost margin allowed by government and the losses authorized. Milling is subject to substantial economies of scale. The larger the mill, the more the owner stands to gain from the current simplistic control system. If the outlined possibilities for extra gains are not enough, the miller can always try to find some fictitious clients for part of his output, clients who do not take delivery, and split with them the difference between US$ 77 per ton and US$ 220 per ton, i.e. the difference between the actual price to him of wheat and barley, interchangeable ingredients in animal feed. Small wonder that the government authorized in 1979, for the first time in many years, the construction of new mills. Reportedly, licenses for eleven new mills, with a total investment of US$ 13.7 million were granted. All of these new mills will be located outside Beirut. Since present milling capacity exceeds demand with at least 20%, the new capacity must be predicated upon milling for exports. This will, among others, require a change in government policy, since private imports of wheat are not now allowed. As we have argued earlier, Lebanon is well placed to perform custom processing of bulk imports for Arab markets. Wheat milling definitely falls into that category.

The trade in all feedgrains, except wheat, is entirely free. Requirements for prior licensing of both imports and exports were cancelled in 1977. This freedom of trade, the deepwater facilities of the port of Beirut and the 115,000 m.ton port elevator have helped to make Lebanon an important transshipment point of feedgrains and pulses. Piracy and port pilferage, suffered to-day by many cargoes of consumer articles, are of minimum importance to bulk cargoes, such as grains. The trade suffers though from some illegal levies, justified as protection money, by various parties. These taxes, though, are apparently bearable. Many feedgrains are bagged and shipped onwards to neighboring countries. Syrian and Turkish lentils are cleaned, sorted and decorticated for re-export to Europe. The extension of the

Table 2 : Lebanon, yearly cost of the wheat subsidy program under various assumed bread prices[1)]

Price of bread (L.L./Kg.)	1.35[2)]	1.50	1.65	1.75	2.00[3)]
Cost of subsidy program (millions of L.L./yr.)	160	110	36	5	0

1) Calculations based on estimated average 1980 wheatprice of US$ 220 per m.ton C.I.F. Beirut.
2) Current actual price
3) Current real cost

Source : Private communication to mission; data reportedly from recent government sponsored study.

Beirut port elevator by another 15,000 m.tons and the construction of a new private elevator of 105,000 m.tons capacity will further enhance Lebanon's position as a transit location and intermediate processor. Proper security would do much to accelerate this development.

Lebanon's total oilseed imports were 104,000 m.tons in 1979, up from 60,000 m.tons in 1978. This increase was mainly due to a doubling of soy bean imports from 45,000 m.tons in 1978 to almost 90,000 m.tons in 1979. Due to sharp increases in demand for both soy bean oil and meal in neighboring Arab countries, Lebanese soy bean imports and crushing are expected to increase substantially and very fast. Imports of soy beans in 1980 are forecast at 150,000 m.tons. In spite of increased imports and local crushing, Lebanon still imported, in 1979, an estimated 15,000 m. tons of oilseed meals. If the anticipated level of soy bean crushing in 1980, of 150,000 m.tons, materializes, the country will increase dramatically its soy bean meal exports from the 40,000 m.tons exported in 1979, to almost double that amount in 1980. Current crushing capacity is reportedly about 150,000 m.tons, divided between two plants, Sinno and Jabbour in Sala'ata and Gandour in Beirut. The mission has observed a number of operational shortcomings in at least one of these plants which make us sceptical about the industry's ability to crush the forecast amount of 150,000 m.tons of beans this year. However, conditions are improving and expansions of capacity to about 350,000 m.tons yearly are planned. Normalizations of conditions and improved security is all that is needed to maintain the development momentum in this industry.

3. Dairy

The mission feels that the F.A.O. report of April 1978[1)] on diary in Lebanon fully treats the dairy situation in the country. Comments, observations and suggestions made in 1978 are still valid to-day. We would like to draw particular attention to pages 58 through 68 and accompanying annexes, for a lucid treatment of the dairy industry, of its predicaments and of suggested policies with respect to this industry. The situation described in the report, of an industry relying for up to 85% of its raw material supply on imports is still valid. Moreover, these imports are now obtained through channels that bypass the legally required custom's duties and licenses, thus depriving local milk producers of the little protection enjoyed prior to 1975. One might argue that the Lebanese consumer has obtained and obtains, dairy products at the lowest possible cost, although with

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1) Programme International de Coordination du Developpement Laitier et Programme International de Developpement du Secteur des Viandes
Projet de Rapport - Republique Libanaise.
F.A.O. - Rome - Avril 1978

widely differing qualities between producers. To what extent this commercial success should be allowed to hamper local milk production is a matter of development policy and of the required degree of self sufficiency in dairy felt to be desirable by the government. The mission does not feel that it can contribute any more beyond what is already discussed and analyzed in the referenced F.A.O. study.

4. Meat and meat preparations

An estimated 85% of Lebanon's meat requirements are met by imports, in spite of the strong recovery of the poultry industry. By 1970, per capita consumption of meat and fish was about 30 Kg. yearly. Beef, mutton and poultry were each about 23% of total consumption. The rest was fish, pork, goats and others. The vast majority of this meat is imported as live animals. Of the 294,000 head of sheep imported in 1979, only 48,000 or 16% were chilled carcasses, the rest was imported live. Official information lists all beef imports as live cattle on the hoof. This cannot be entirely correct, since it is widely known that frozen beef is imported from, among other sources, India. The mission has seen frozen beef from Argentina and frozen mutton from Australia. We have no way to estimate the extent of frozen meat imports. However, we venture that sharp recent increases in livestock and meat prices, coupled with the increasingly distressed sales of Uruguayan and Argentinian beef on the European market, will increase the imports of frozen meat in Lebanon. The market is sizable and thus will attract the attention of agressive sellers. Official 1977 statisties show the value of imported meat and livestock in that year already at L.L. 137 million. It may be recalled that 1976 through mid 1979 was a period of low international meat prices. Current, much higher prices, support an estimate of around L.L. 200 million as the probable value of Lebanon's import market for beef and mutton.

In spite of an expected increase in imports of frozen meat, live animals and thus local slaughtering will remain predominant for some time to come. Slaughtering by individual butchers, under unhygienic conditions, and without sanitary control, is still the norm in Lebanon. This is not only a public health hazard, but it entails substantial economic waste. It is impossible to collect slaughter offal from myriad butchers all over the country for central processing into such products as bone and blood meal for animal feed or glue made from horns and bones. Furthermore, skinning of the animals is not done with the aim to collect unblemished, and thus valuable, hides and skins. It was estimated by Lebanon's major tanner of sheepskins, that local sheep skinning techniques which leave cut marks in the leather, represent a loss to the tannery industry, and thus to the country, of around L.L. 1 million per year. These observations lead to the suggestion that modern central abattoirs which do custom slaughtering, for a fee, are probably economically and socially justifiable in Lebanon. Construction

and operation of such abattoirs, coupled with a ban on slaugher elsewhere, could be a legitimate government undertaking. The vast majority of meat is sold as red meat. One modern meat processor, AMPAK S.A.L., produces about 60 to 80 tons per month of such items as hamburgers, various sausages and a range of prepackaged cold cuts for supermarkets and specialty grocery stores. The same processor also uses about 6 to 8 hogs per week, all domestically raised. The pork market in Lebanon is understandably limited. Surprisingly though, and in spite of the country's meat shortage, 9000 hogs were reportedly exported to Syria in 1979 alone.

In common with many other countries, Lebanon has seen a sharp increase in poultry production in the sixties, based on the increased availability of low cost poultry feed. The latter was a result of the extraordinarily successfull soy bean cultivation in the United States and later in Brazil and to a lesser extent in Argentina. Poultry meat production increased from 1,700 m.tons, or 4.8% of total meat and fish production, in 1955 to more than 15,000 m.tons or 22.5% of all animal protein, in 1965. Poultry meat consumption had reached more than 25,000 m.tons by 1974, so far the year of maximum production. In that year, the country produced almost 600 million eggs, 30 million day old chicks and 17 million broilers. This production originated from 280 broiler farms with a flock approaching 3 million animals, covering 30 has. of land. North Lebanon and Mount Lebanon accounted for more than 70% of total broiler production. There were 316 layer operations, 77% of which was located in the Be'eka. Egg farms occupied about 50 has. Layer population was 2.3 million and average productivity was 271 eggs per hen yearly. There were 13 hatching egg operations, 10 of which were in Mount Lebanon and 3 in the Be'eka. About 71,000 hens were held on 2 has of total area; average productivity of the hatching flock was 263 eggs per hen yearly. Poultry slaughtering and processing was done in specialized operations. The processing industry was expanding. One potential poultry processor told the mission to have lost all machinery for an entire processing plant in the port of Beirut during the hostilities. Although more than 95% of poultry meat produced was consumed domestically, exports enjoyed a particularly favorable quality image. Reportedly, Lebanese broilers commanded a 50% price premium over Danish and other merchandise in Kuwait and elsewhere in Gulf state markets. An impressive industry with good productivity, but vulnerable to the disruptions caused by the hostilities. Lack of security caused many farms to be closed down; others lost their flocks through confiscations, destruction and pilferage. Lack of security in and around Beirut hampered the animal feed industry. Poultry operations are critically dependent upon consistent supplies of feedstuffs. Lack of security disrupted veterinary services, leading to widespread outbreak of poultry diseases. These factors combined led to reductions of egg production with 75% and broiler production with 65%, by the end of 1976, as compaired with 1974. For the first time in years Lebanon had to import eggs and poultry meat. Broiler

meat imports were estimated at 800 m.tons in 1975 and at 4,000 m.tons in 1976. Egg imports were at least 60 million units in 1976. Damage in the industry was estimated by the government at more than US$ 50 million. Fortunately, poultry is "fast meat", allowing for a relatively quick recovery after a major setback such as experienced in Lebanon. Indeed, the poultry industry is an example of the resilience of Lebanese enterprise. Broiler production in 1979 was again estimated at 17 million birds, equal to the 1974 production. Egg production remained somewhat below its 1974 peak of 600 million units, at an estimated 470 million eggs. The main reason here is the relative decline of the export market for eggs in neighboring countries, because of the increase of indigenous production in these same countries. There is some interest now in the production of turkeys and quails, specialty products that might indeed prove attractive to Lebanese producers.

The government, through its animal production office, has supported the local poultry industry rather effectively, in spite of the hostilities. Previous to 1975, imports of eggs and poultry meat were prohibited, to protect local industry. During the hostilities, when central government authority was weakened, illegal imports of both eggs and poultry meat began to appear. In February of 1977, the government authorized temporarily the imports of eggs, broilers and baby chicks. Eggs and broilers, though, were assessed a moderate import levy to protect local industry. The import levey was not large enough, US$ 0.31/Kg. broiler meat and US$ 0.01/egg, to make smuggle attractive. The import authorization has been periodically extended for broilers, but was discontinued for eggs in September of 1978. Also, the government's animal production office has, at times, prohibited the export of eggs to curb domestic price rises. For instance, an export limit of 10,000 boxes of eggs monthly was enacted in the autumn of 1977. It occurs to us that here is an example of purposeful government action, well conceived and executed, in spite of trying circumstances. It might serve as a model of legitimate and fruitful government action in other sectors of agro-industrial activity within Lebanon's free market economy; the dairy industry springs to mind.

5. Vegetable oils and fats

Apart from the rapidly increasing soy bean imports, mentioned in paragraph 2 on milling and animal feed production, Lebanon also imported in 1979 8,500 m.tons of cottonseed, 4,500 m.tons of sesame seed and about 2,000 m.tons of other oil bearing material, including copra. These imports were to complement the local production of approximately 500 m.tons of sunflower seed, 4,000 m.tons of groundnuts and 300 m.tons of sesame seed. All these raw materials enter four plants that can be considered the modern, technologically sophisticated part of Lebanon's vegetable oil industry. It can be expected that this industry will further expand rapidly, will make Lebanon self sufficient

in oils and fats and will become a major exporter to neighboring Arab countries. Soya beans will be the principal raw material for this expansion.

The other, more traditional, part of Lebanon's vegetable oil industry is based on locally produced olives. There are scores of small, sometimes very primitive olive presses scattered all over the country. Lebanon's olive crop varies from a low of 40,000 m.tons in an off-year, such as 1979, to 65,000 m.tons in a good year. Olive cultivation tends to have alternative years of low and high yields. Approximately 10,000 to 15,000 m.tons are used yearly for direct consumption, the rest 25,000 to 55,000 m.tons are pressed for oil. Oil yields are approximately 20% of the weight of fresh olives. Usually, around 85% of the oil produced is used as edible oil, the rest is processed into soaps, is burned in oil lamps, etc. Average yearly edible olive oil production is thus around 6,800 m.tons. This is approximately 25% of the country's usual annual consumption of all oils and fats. it can be concluded that Lebanon's olive oil industry is economically significant and socially important. The latter, because of the widespread partial dependence of many rural people upon the traditional olive cultivation and processing.

Table 3 shows the availability of oils and fats in Lebanon in recent years, 1977 through 1979. The trend of rapidly increasing local production is quite apparent. Even the hostilities of 1978 did not reduce the amounts of oils and fats locally available. Since total domestic consumption is around 28,000 to 30,000 m.tons yearly, Lebanon will soon be self sufficient in oils and fats, although its production will be mainly based on imported oil bearing seeds. It should also be noted that Lebanon must have been a net exporter, or re-exporter, of oils for several years; the yearly availabilities of oils and fats consistently outstrip domestic consumption. It is likely that exports have been even larger than they appear from the data in table 3, because a sizable portion of local demand is reportedly satisfied by illegal imports. Some of these imports may not be included in the data in table 3 . Smuggling of vegetable oils has a strong incentive in import duties ranging from US$ 132 to US$ 148 per m.ton, or 28% ad valorem, whichever is higher. On top of this, a municipality tax of 3.5% ad valorem has to be paid.

It should be noted, in table 3 , that soy bean oils are the fastest growing component in Lebanon's oils and fats market, a trend we expect to continue as indicated earlier. There are two main reasons for this expectation, one is technological, one is economic. Modern refining techniques of crude oils are such that the source identity of the oil can be made to disappear for all practical purposes. This implies that neutral salad and cooking oils, as well as margarine, can be made from almost any oil base. The least expensive base will, of course, be preferred. Already, soya oil is priced in the Lebanese

Table 3 : Lebanon, availability of oils and fats in recent years (m.tons)

Products	1977 Amount	1977 % Imported as oil or fat	1978 Amounts	1978 % Imported as oil or fat	1979 Amounts	1979 % Imported as oil or fat
Soy bean oil	6,663	21	8,875	11	16,250	3
Olive oil	7,783	7	4,600	35	9,000[1)]	6
Sesame oil	2,800	0	3,750	0	3,750	0
Maize oil	461	100	1,100	100	1,500	100
Coconut and Palm oil	1,000	63	1,200	100	1,200	100
Cottonseed oil	1,686	23	1,075	19	1,100	20
Groundnut oil	756	13	600	50	500	60
Sunflower oil	20	100	450	14	300	17
Other oils and blends	5,000	59	3,500	80	3,000	85
World Food Program	1,262	100	770	100	1,300	100
Beef tallow	4,768	100	7,000	100	7,000	100
Totals :	32,199	39%	32,920	49%	44,900	34%

1) Approximately 1,000 m.tons were exported.

Source : United States Department of Agriculture
Foreign Agricultural Service
Data based on Beirut Port Company statistics, on trade information and on estimates of the U.S. agricultural attaché.

retail market at less than half the price of comparable other oils, see table 4. Current price differences are maintained largely because of consumer preferences. If experiences elsewhere are any guide, these substantial price differences will erode the markets for other oils in favor of soya oil. This, in spite of alleged consumer preferences. It should also be noted that soya bean wholesale prices as listed in table 4 are high by international standards. We feel that soya bean oil producers can further reduce their prices if necessary to penetrate the vegetable oil market further. The producers of most other oils probably do not have as much leeway in pricing as their soya oil competitors.

Current processing capacity in the two major soya bean crushing plants is approximately 150,000 to 200,000 m.tons per year. The Ghandour plant is located in Shoueyfat, 15 Km. from Beirut; the new plant of Sinno and Jabbour is located 55 Km. north of Beirut along the coast, next to a fertilizer factory. Sinno and Jabbour are constructing their own port at the plant complex, capable of handling bulk cargoes of soya beans in up to 20,000 ton vessels. Current silo storage capacity is already 20,000 m. tons. Plans have been drawn up to increase crushing and storage capacity at this same location further substantially, reportedly threefold i.e. to an ultimate 1,500 m.tons per day. Such a plant complex will rank among the world giants. The largest soya bean crushing plants in the world under one roof, have a capacity to crush around 2,500 to 3,000 m.tons of beans daily. Sinno and Jabbour's location, though, next to a fertilizer factory is unfortunate. The plant, and may be its product, suffer from air and water pollution occasioned by the fertilizer factory. Government insistence to reduce this pollution would greatly benefit current and future operation of the soya bean crushing plant. Both factories have modern facilities for both solvent extraction and further refining of the oil. Hydrogenation equipment, to produce margarine, will soon be installed. Operation of the Sinno and Jabbour plant, though, visited by the mission appears not entirely satisfactory, from the viewpoint of technical and managerial competence. This may be due to the current reluctance of qualified staff to take up residence at the plant location or even to relocate to Lebanon.

Apart from these two soya bean crushers, there are a number of smaller mills with a combined capacity of around 50,000 m.tons of seeds yearly. Historically, their main raw material has been cottonseed, imported from the Soviet Union. We understand that none of these mills has solvent extraction facilities. Their high cost, and low yield, expelling operations will find it increasingly difficult to compete with the soya bean crushers.

Table 4 : Lebanon, wholesale prices of selected vegetable oils in March of 1979

Product	Wholesale price (L.L./Kg.)
Olive oil (local)	7.50
Sesame oil "tehineh" (local)	7.25
Maize oil (U.S.)	7.25
Olive oil (Spanish)	6.50
Maize oil (Italian)	4.65
Cottonseed oil (local)	3.60
Soy bean oil (The Netherlands)	3.30
Soy bean oil (local)	3.20

Source : United States Department of Agriculture
Foreign Agricultural Service

6. Tanning and animal by-products

Lebanon used to have a fairly large and well regarded tanning industry. There is a long tradition of tanning in the country and Lebanese tanners were well located to buy and collect hides and skins all over the Middle East for processing and re-export. Gradually the industry had grown to the extent that, by the early seventies, hides and skins were imported from the main world sources of these raw materials, African countries and Latin America's southern cone. Unfortunately, the events of 1975 came at a time when Lebanese tanneries were beginning to feel pressures similar to those of European tanners: environmental considerations with respect to the objectionable air and water pollution from tanneries and rapidly increasing labor costs. As a result there is a growing tendency for tanneries to be relocated nearer to the sources of their raw material, with a preference for developing countries.

Under those conditions it is understandable that it has been extra difficult for the tanneries to reconstruct after the hostilities. Furthermore, the bulk of Lebanon's tanneries were located in the area north-east of the port of Beirut, an area that received heavy damage through Syrian shelling. As a consequence, tanneries as a group have sustained more physical damage than the average damage to agro-industries.

It is, thus, doubtful in our opinion whether tanning will regain the eminent position it occupied once in Lebanon. An exception to this may be those few industries that produce a specialty product. The Kamel enterprise, J.R.K.-tanneries, that specializes in the processing of top quality sheep skins for such vanity items as bath and bedroom floormats, automobile seat covers and the like is an example. This industry with a daily processing capacity of 5,000 to 6,000 sheepskins was technologically fully up-to-date in the early seventies. It catered to the most sophisticated and quality conscious market for its products; West Germany. Now, this is one of the industries we would classify as being in a holding pattern. Normalization of business conditions in Lebanon is all that is needed to put this firm again on its feet.

B. AUXILIARY INPUTS

1. Packaging materials

Contrary to many other countries with an incipient agro-industry, Lebanon has a well developed packaging industry. Cans are produced by a modern plant in Beirut. Their quality is excellent, including the lithography. Sideseams are still soldered, though, we have not found welded cans. Interestingly, the canning industry complains that the quality of the Lebanese can is too good, i.e. is too expensive. Imported goods from Spain, Greece or Italy often are packed

in cans made of thinner tin plate and with less costly internal lacquers than the cans available to Lebanese canners from the domestic can making plant. Reportedly, empty Greek cans have been landed in Beirut at the same price as the local product. Since for relatively inexpensive items, such as canned fava beans, the cost of the can is more than 50% of total production cost, one can understand the price consciousness of the local canner with respect to his cans. Even for more expensive specialty items such as hommos téhiné, the cost of the can may be one third of production costs of the product. Nevertheless, in our opinion, it is dangerous to request a canmaker, who has a monopoly in the market, to lower his quality. We have seen elsewhere unscrupulous manufacturers buying waste tinplate as raw material for their canmaking operations. It is possible to buy distressed lots of tinplate that have been rejected for the manufacture of sanitary cans because of the existence of large numbers of pinholes, very small holes in the plate, that are often hardly visible with the naked eye. Cans produced from this plate will show an extraordinarily high failure rate. More than 20% failed cans within 3 days of production have been reported in instances where waste tinplate is used. Failing cans, because of pinholes, are discovered only after filling and closure, i.e. after all costs of production have been incurred. The Lebanese canning industry would be well advised not to be too insistent in a quality reduction of their cans.

Glass jars are produced as well in Lebanon. However, we understand that strong export demand and low lot sizes ordered by the domestic canning industry, have made the glass industry reluctant to produce for the local canner. Standardization of glass jars of all users in Lebanon into a limited number of types and sizes might increase lot sizes to a level attractive again to the glass industry. Product and manufacturers' identity can still be maintained through labelling and through custom printed tops and covers. Standardization, and may be pooling of orders, could be a legitimate government undertaking to help the canning industry.

Carton is produced by several plants and its supply and availability appear to be no problem. The availability of boxes for fresh produce, though, is a problem, mainly because of the limited and costly supply of wood. Reportedly, some of Lebanon's famous cedars have at one point be cut for the production of apple and orange boxes. The production of plastic crates to substitute for wooden boxes has been mentioned to the mission as a possibly feasible alternative.

Plastic bottles and other containers are of course produced in great profusion. Retortable pouches, as a alternative to cans for certain products, have not yet reached Lebanon. The high cost of local cans may make retortable pouches attractive in spite of the limited lot sizes of products manufactured. Government supported research and development work on the application of retortable pouches to typical

Lebanese canned goods, appears to be a potentially beneficial undertaking.

2. Financing[1)]

Historically, financing of both investment and working capital appears not to have been the stumbling bloc it is in many countries that are less well endowed with sophisticated financing institutions, and cash, than Lebanon. However, the events of 1975 have created unusual demands for reconstruction financing and have also severely cut down the once sprawling bank community. In the face of these requirements and problems the government has made available, so far, 300 million L.L. for reconstruction through the Industrial Development Bank. The latter is supposed to complement this fund with another 100 million L.L. from its own resources and from the resources of other, private, banks.

A recurring theme heard when interviewing agro-industries that should be eligible for reconstruction financing under the facilities of the Industrial Development Bank, is the long time required and the red tape involved in obtaining what they believe to need. A period of two years of elapsed time between application and final indications of consideration is the norm.

According to the management of the Industrial Development Bank, at the time of the mission's visit to Lebanon, April and May of 1980, 90 reconstruction loans, totaling 140 million L.L. had been granted. Besides, the bank had granted a total of 60 million L.L. in what is classified as development oriented loans. Reconstruction loans carry an interest rate of 5% and a possible grace period on principal, not on interest, of a maximum of 3 years. Loan periods differ, there is apparently no maximum. Development loans now carry an interest of 10%. Management stated that the bulk of the bank's resources were committed elsewhere; we understand in term deposits at rates of more than 10%. The bank is thus understandably reluctant to lent at concessionnary rates of 5 and 10% those resources that are now earning more than 10%. Finally, the Industrial Development Bank's entire outstanding portfolio of reconstruction and development loans to industry is 200 million L.L., after 8 years of operation. To put this in perspective: it is roughly the same amount of money that the government will spend this year on the wheat subsidy alone. We conclude that direct assistance to industrial reconstruction and development has a low priority in the eyes of government policy makers.

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1) For a more comprehensive coverage of financing available to industry in general, as well as for a description of issues of industrialization policy see: E.C.W.A. - An industrialization policy and strategy for Lebanon - Beirut June, 1978.

Indirect assistance in the form of tax incentives are more generous. Income tax exemptions can be granted for periods up to 6 years to qualifying new investments and even for profits resulting from the expansion of existing facilities. Essentially double the usual incentives are available for industries that are establishing themselves in under-developed areas. These incentives may include a very generous tax holiday of ten years. Establishment in under-developed areas might be particularly attractive to some kinds of agro-industries.

Financial incentives to promote exports have been weak. The only export subsidy ever given was for certain types of textiles, a subsidy paid out of a levy on textile imports. The most widely applied export incentive is a form of drawback, either directly, or indirectly through the establishment of bonded wharehouses at manufacturing plants. The canning industry has occasionally imported cans from Greece in bond for the manufacture of canned goods for export.

3. Government regulations

Rules and regulations pertaining to health and quality standards for agro-industrial products have been on the books in Lebanon for a long time. The same can be said for a more limited set of tariffs and regulations aimed at protecting local industry against unfair competition from abroad. With the exception of the wheat and sugar subsidies, Lebanon apparently has never had a policy of protecting infant industry against regular international competition. This would not have been in the spirit of a true free market economy. Rather, protection and tariff policies have been dealt with ad-hoc, reflecting historical incidents; tariffs have been designed primarily to generate public sector revenue instead of being aimed at protection[1]; tariffs and protection were never part of national development objectives but were linked to the commercial viability of a project. It is our distinct impression from interviews with senior civil servants that the current government will continue the policy of a free market economy, with minimum interference in its development.

Nevertheless, it is recognized by government and it is grudgingly admitted by most entrepreneurs that there should be a certain framework of public sector activity with respect to agro-industries. In its most modest form this framework exists as the rules and regulations that are now in theory in force. The immediate and practical

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1) Average nominal tariffs for imports of all manufactured products were 18% in March of 1969. Most other nations with developing industry had a much higher average tariff at that time. See: E.C.W.A. : op.cit.

problem is to impose this framework industry wide and to enforce its application. It is recognized by all parties involved that this application and policy of regulatory discipline with respect to agro-industries is part of the wider problem of national government authority and enforcement of law and order. In other words, it is a political problem and not technical nor economical. In the following chapter we will make some suggestions about a limited number of activities the government should exercise in an otherwise laisser-faire economy such as is prevalent in Lebanon.

SUGGESTED PUBLIC SECTOR ROLE

Even the most ardent supporter of free enterprise will have to admit that certain activities legitimately should be performed by the public sector, on behalf of society at large. In the following paragraphs we have tried to outline what we believe could be a modest program of control, development and promotion of agro-industrial activitity in Lebanon by the country's government.

A. ACTIVITIES

We see three distinct activities that the government should undertake for the benefit of agro-industries :

1. Control and regulation

Agro-industries, and particularly its food producing sub-sector are vulnerable to abuse aiming at increasing the profits of manufacturers. Often, abuse and adulteration pose a health hazard. Thus, in order to maintain fair competition, even in an otherwise free economy, and to protect the consuming public, government has a role, indeed an obligation to regulate and control certain aspects of agro-industrial activities. A full treatment of this issue is beyond the scope of this report. However, such now widely accepted measures as ingredient labelling on packaged foods, restrictions on the use of additives and preservatives that may be health hazards, requirements for certain minimum standards of product treatment, plant hygiene, etc. are among the issues that should be dealt with. As stated before, Lebanon has, in the past, enacted a number of laws related to control and regulation. We understand that this Lebanese legislation is patterned after the French anti-fraud laws. The latter deal with fraud in manufacturing industries in general, not only in agro-industries nor are they specifically related to food. Besides, French and by implication Lebanese anti-fraud legislation deals with product fraud, such as adulteration or misuse of additives, as well as with economic fraud, such as dumping. This combination of product and economic fraud in one legislative package is appropriate for France where government involvement in economic matters traditionally has been strong. However, it would occur to us that this may not be equally appropriate in Lebanon, where government involvement in the economy has been traditionally rather limited. Also, the duality in legislation may create a controversy as to where control and regulation belong administratively. In Lebanon this responsibility is, we understand, shouldered by the ministry of economics. It might be argued that aspects of control and regulation with respect to food more appropriately are the responsibility of the ministry of health or may be of agriculture. A clear focus of anti-fraud legislation upon product related matters, instead of upon economic matters, would most likely assign administrative responsibility to one of the latter ministries.

Recapitulating, we suggest that the Lebanese government contemplates the desirability to split its anti-fraud legislation with respect to agro-industries into two distinct parts, i.e. :

a. Laws and a policing mechanism dealing with economic fraud.
b. Laws and a control and enforcement mechanism dealing with product fraud.

It may furthermore be suggested to invest two administratively independent agencies with the two aspects of fraud. The agency dealing with economic fraud could conceivably report directly to the minister of economics or to the minister of justice. The other agency, dealing with product fraud, could report to either the minister of agriculture or the minister of health. It is probably important for its objectivity to have either agency independent of other ministerial bureaucracies. Indepence in the form as enjoyed by the office of animal production under the minister of agriculture appears to be workable in Lebanon and might serve as the model.

2. Support for new industrial development

Within the free market philosophy of Lebanon, public sector support for industrial development is necessarily limited. As indicated before, direct support, in the form of concessionary development financing has been very small. Indirect support, for instance in the form of tax incentives has been somewhat more generous. The latter does not involve government outlays but only a hypothetical loss of revenue of activities that might not have been established in the absence of the incentives. By and large, Lebanon does not have a development policy with well defined objectives relating to agro-industries. Agreement upon such a policy, though, is a necessary precondition for the design of a government supported development program for agro-industries. Again, we do not advocate direct government involvement with industrial ventures, we merely suggest that a modest program of well focused actions could be beneficial to the country at large. At least three areas of development related activity come to mind as a result of the mission's field work :

a. In the interest of broadening its narrow industrial base and in order to create employment and further development opportunities countrywide, the government should strengthen its efforts to locate new industries away from Beirut. Agro-industries appear to be particularly susceptible to a modest program of incentives aimed at rural location rather than again in Beirut.

b. A limited number of selected industries may merit protection against import competition. Purposely we have stated : "a limited number", since several countries, notably Chile, Argentina and

Uruguay are currently dismantling the heavy protective barriers erected in the sixties and early seventies for their infant industries. Instead of maturing, many of these country's protected infants had remained extremely inefficient and high cost producers. Still, we believe that careful analysis will show justification for protection in certain cases. The socially important olive oil industry is a case in point, providing a livelihood for a large number of people out of proportion with whatever the consumer could gain by reduced prices of imported oil. The, again, flourishing poultry and egg industry has benefited from protection against cheap imports from its inception. It might be questioned if this industry would even have grown to its current size in Lebanon in the absence of protection.

It should be realized, though, that design, monitoring and development of an equitable and effective protection system for industry calls for an elaborate and demanding administrative machinery. If such a machinery cannot be developed, the very idea of effective protection may well have to be shelved.

c. Lebanon has never had an export promotion policy. A general drawback system and bonded storage is all that is actually available to agro-industry. In our opinion the existing measures are wholly inadequate when set against the importance of export to Lebanon's economy. This is true under normal conditions and is particularly important now, under the trying circumstances suffered by the entrepreneur and the country alike. Earlier in this report we have given an example of an industry in what we called : "a holding pattern", one of a number of agro-industries slowly fading away. We refer to the sheepskin processing operation of J.R.K.-tanneries. This company's major problem is its inability to finance its export demand because of the prevailing insecurity in the country. Its market is still there, the skins are available, the factory is fully operational. We suggest that a government guaranteed financing facility for exports would be the appropriate answer for this, and other, industry's problems. Such financing facilities for exports are operational in all major exporting countries. One of the best known is probably the U.S.-Import Export Bank. Often, the actual government investment in these facilities is limited. A government guarantee to assume responsibility in case of default is often all that is needed to secure commercial bank financing. The instrument of government guarantees is widely used in the U.S., not a particularly regimented economy, to facilitate purely commercial operations. Bond issues with government guarantees automatically receive triple A ratings, i.e. obtain the lowest interest rates and find a ready market with cautious institutional investors. This mechanism was used to bail out Lockheed, without the government losing a penny. Quite to the contrary, the U.S. treasury charges for its guarantees. The same mechanism is now used to try and salvage Chrysler. Government guaranteed merchant marine bonds have been used very successfully to finance the multi billion

dollar commercial shipbuilding program of L.N.G. (Liquid Natural Gas) tankers. These were all export orders.

We believe that Lebanon could most forcefully enhance its export industries by establishing a financial support mechanism for its foreign trade. We realize the potential for abuse, intentionally or not, that is inherent in the government assuming commercial risks. However, we believe that Lebanon has sufficient sophisticated banking expertise to be able to run such a program. The problem will be to run it for social benefits rather than for personal gain.

3. Promotion of product and company development

Lebanese agro-industrialists tend to have a strong mercantilistic sence. Unfortunately this commercial mentality emphasizes short term gains over long term opportunities. Consequently, Lebanese producers buy and imitate currently available products and technologies. They are most reluctant to invest risk capital into such uncertain ventures as product development. By the same token, long term planning and development strategies are concepts that are rather foreign to the average Lebanese producer. There is room, in our opinion, for some government support and encouragement with such longer term development aspects as research on new products or strategic planning for the company. The ethnic Lebanese and Arab products that are now being produced by the local canning industry are a good example. So far, this industry produces the very simplest local products, essentially dips[1] consisting of a few ingredients each. Preparation is similar to the way the housewife produces it; only the scale of production is somewhat larger. Already these producers complain that their product's taste is somewhat different from the home made product, since canning involves a heat treatment which the domestic product does not undergo. Some research and product development work might lead to other ways of heat transfer to the product to be canned[2], coupled with aseptic canning; stronger tasting raw materials might be selected; flavor enhancers might be added, etc. We are firmly convinced that further development of the production package of ethnic foods in Lebanon will require increasingly sophisticated R&D. We are equally convinced that the large international producers of specialty food items will capture this market for ethnic Arab foods once these are identified and opened up by Lebanese producers, unless the latter can meet that competition through continued innovation and through the relentless pursued of a quality image in the eyes of the consumer.

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1) See previous discussion in "B - The Current Situation", paragraph 3c, page 17.
2) For instance by means of scraped surface heat exchangers, sometimes called Votators.

A company needs a long term strategy for its own development, in order to focus R&D work on product development. The government might support the availability of expertise to companies to help them in the design of such strategies. Sometimes, an effective effort to make companies aware of this need is sufficient. We do not believe that it is a government task to give this managerial and organizational assistance directly. The government is probably ill equipped to do it. We only advocate a government role in facilitating the acquisition of this specialized expertise by industry.

Finally, the government might play a role in such promotional activities as trade fairs and other international marketing and exchange efforts. However, this can only be done fruitfully in close collaboration with industry. This, in turn, requires the prior establishment of dialogue between government and industry.

B. PROJECT PROFILES

The following pages contain summary descriptions of some organizational aspects of short term projects that are essentially concerned with matters of policy design and with recommendations for appropriate mechanisms to implement suggested policies. The projects profiled here are a consequence of the suggestions made with respect to the role of the public sector in the previous sub-chapter.

PROJECT PROFILE 1

Name	: Norms, standards, rules and regulations for agro-industrial products in Lebanon.
Objective	: To arrive at a comprehensive set of behaviour and production rules for agro-industry and trade in Lebanon and to design a realistic framework for the implementation and enforcement of these rules. To the extent feasible, the Lebanese regulatory control mechanism should be in line with accepted international rules and practices. Close liaison with the project suggested under profile 2 is recommended.
Executing agencies	: a) local; probably a joint commission of the ministries of health, economics, agriculture and justice. b) international; F.A.O. (Codex Alimentarius-group)
Resources	: a) local; 4 ministry officials, one secretary, one fully equipped secretarial office, one professional office cum meeting room, occasional availability of ministerial transport, operational budget. b) international; 1 manyear of expert assistance, usual FAO/UN contributions to operating expenses.
Duration	: Initially one year
Location	: Beirut and Rome
Estimated cost	: The equivalent of US$ 125,000 (this does not include the salaries or other remuneration of the Lebanese officials).

PROJECT PROFILE 2

Name	: Trade regulations in Lebanon, with particular emphasis on agro-industrial products.
Objective	: To design a body of legislation governing the orderly conduct of trade in general and the trade in food products in particular. Aspects of economic fraud, its detection and remedies should be the focus of the project. International standards, such as those laid down in the GATT agreements should guide the work. Close liaison with the project suggested under profile no. 1 is recommended.
Executing agencies	: a) local; probably a joint commission of the ministries of justice, economics and agriculture, with an observer from the ministry of foreign affairs. b) international; UNCTAD/GATT
Resources	: a) local; 4 ministry officials, one secretary, one fully equipped secretarial office, one professional office cum meeting room, occasional availability of ministerial transport, operational budget. b) international; 1 manyear of expert assistance, usual contributions of the U.N. system to projects of this nature.
Duration	: One year
Location	: Beirut and Geneva
Estimated cost	: The equivalent of US$ 125,000 (exclusive of travel expenses of Lebanese officials and of their salaries and other remunerations).

PROJECT PROFILE 3

Name	: An industrial development policy for Lebanon, with emphasis on agro-industries.
Objective	: To discuss within the broadest possible context and to recommend upon an industrial development policy for Lebanon. The study should be addressed to the legitimate role of the public sector with respect to fostering industrial development in a quintessential free market economy. The end result of the study should be a general policy framework, a number of specific and well defined actions to be taken, and suggestions about an implementation mechanism for these actions.
Executing agency	: A private sector consulting company whose economists have links with such free market advocates as the Chicago School of Economics (Milton Friedman). Some advisory role by senior staff of the World Bank would be desirable.
Resources	: Funds to pay for the study, official support at the minister's level in Lebanon.
Pre-condition	: A broad agreement at cabinet level that the government will consider a development policy, and its strategy, for application in Lebanon.
Duration	: 6 Months
Location	: As yet undefined
Estimated cost	: The equivalent of US$ 160,000.

PROJECT PROFILE 4

Name	: Public sector support for exports from Lebanon.
Objective	: A plan should be drawn up to give effective support to export efforts of Lebanese manufacturers. Ways and means available to exporters in other countries with a market economy and a strong manufacturing sector should be used as guides. Financial facilities in he form of government guarantees for export financing should receive particular attention.
Executing agency	: A joint public and private sector study group should undertake the development of recommended mechanisms and procedures. The private sector representation should be found in the commercial banking sector, complemented with one or two senior executives of major exporting firms e.g. Mr. Georges Kamel of J.R.K. tanneries.
Resources	: One secretary and a fully equipped secretarial office; an operational budget and funds to pay for outside consultancy on export supports elsewhere.
Duration	: One year
Location	: Beirut
Estimated cost	: The equivalent of US$ 60,000; this is exclusive of remuneration to the Lebanese participants in the study.

PROJECT PROFILE 5

Name	: Technical and managerial research and development in Lebanon's agro-industries.
Objective	: A study should be made of the type and scope of technical support required for the long term development and viability of Lebanon's agro-industries. Research on product development and on improvements in quality and production techniques should receive particular attention. Concurrently with this study it should be investigated what managerial and organizational support should be available to the nation's agro-industries and how this support might be given most effectively.
Executing agency	: One of the international consulting companies who are themselves active in basic research as well as in management consulting e.g., Battelle, Arthur D. Little, Inc. or the Stanford Research Institute (S.R.I.).
Resources	: Funds to pay for the study
Duration	: 6 Months
Location	: Undefined
Estimated cost	: The equivalent of US$ 225,000.

ANNEXES

ANNEX 1

Terms of Reference

M. Richard L. Lacroix
Consultant, Industries Agro-Alimentaires

Sous la direction du coordinateur du project LEB/79/013 et en coordination avec le consultant en commercialisation agricole et les homologues nationaux, le consultant :

1) analysera la situation actuelle et les difficultés qui s'opposent au développement des industries agro-alimentaires;

2) proposera les principaux éléments d'une stratégie d'ici l'an 2000;

3) proposera programmes et moyens nécessaires (investissements) pour mise en oeuvre de ces programmes;

4) préparera fiches techno-économiques des projects.

Note : Dossier complet de M. Lacroix avec M. Nicolosi, LNOR. Voir tél. Nicolosi/de Fauconval 11/3 (copie attachée). L'intéressé a fait de nombreuses missions pour la FAO.

ANNEX 2

People met whose names could be recorded

1. Abela, Joe - Albert Abela S.A.L. - catering
2. Atteyeh, Dr. Abdallah J. - Chamber of Commerce
3. Bourgey, André - C.E.R.M.O.C. - study center
4. Chaib, André E. - Ph.D. - A.U.B. - economics department
5. Chibli, Khattar - Ministry of Finance -
6. Cortas, Emile - Cortas Company - canning
7. Dada, Rafic B. - Centre Viticoles - wine making research
8. Darwiche, Georges - S.T.I.P. - tannery
9. Doumit, Mr. - Doumit-dairy - dairy processing
10. Emad, Neema N. - Emad Company - vegetable oils
11. Estephan, Dr. Joseph - Middle East College - bread baking
12. Foulaihan, Dr. - Development Bank - banking
13. Hamde, Mr. - AMPAK - meat packing
14. Hazelhoff Roelfzema, W.U. - A.B.N. bank - banking
15. Hilal, Albert S. - S.L.C.M.C. - canning
16. Hinédi, R. - Rafic Hinédi and Company - onion drying
17. Idris, Atef S. - S.L.C.M.C. - canning
18. Imasounian, Joseph and Sons - T.I.J. - tanning
19. Jannoun, Mohammad - Sino and Jabbour - milling, veg.oils, bag manufacturing
20. Kamel, Georges J. - J.R.K. - tanning

21. Kizirian, Hovaquim M. - U.S. Embassy - agricultural intelligence
22. Le Brun, Mr. - Le Brun and Company - wines and spirits
23. Maksoud, Elie, J. - Foremost - dairy
24. Mansour, Jamil - Crown Flour Mills - milling
25. Mettni, Mr. - Mettni Company - spices
26. Nasrallah, Philip - Unifood - poultry processing
27. Nawam, Iwam - Ministry of Industry - head industry department
28. Rossi, Christo - Rossi and Company - sheep intestines
29. Roufajel, Raymond - Office Fruitier - coordinator fruit production
30. Stewart, Bonnie Ann - Ph.D. - A.U.B. - agricultural and rural institutions
31. Tanous, Raja - A.U.B. - food technology