

T H E I N D U S T R I A L D E V E L O P M E N T

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A T H E S I S

S U B M I T T E D B Y

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a c a n d i d a t e t o q u a l i f y

f o r t h e d e g r e e o f

P H I L O S O P H I A E D O C T O R

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PREFACE.

This thesis is one of the first attempts to present a study of the "Industrial Development of the Lebanon". The aim therefore was to cover the widest possible scope rather than to deal with any particular industry or its problems.

It is intended that this thesis should serve as a basis for further more specific investigations.

The purpose of this study is :

- To give a statistical measurement of existing Lebanese industries.
- To examine their problems and prospects.
- To suggest some solutions to these problems.
- To study prospects for new industries.

The lack of industrial statistical data for the Lebanon was remedied by personal interviews with, and questionnaires submitted, to, Lebanese industrialists whom I would like to thank for their collaboration.

I wish to express my gratitude to Professor P. Sargent-Florence for help and guidance throughout the course of study.

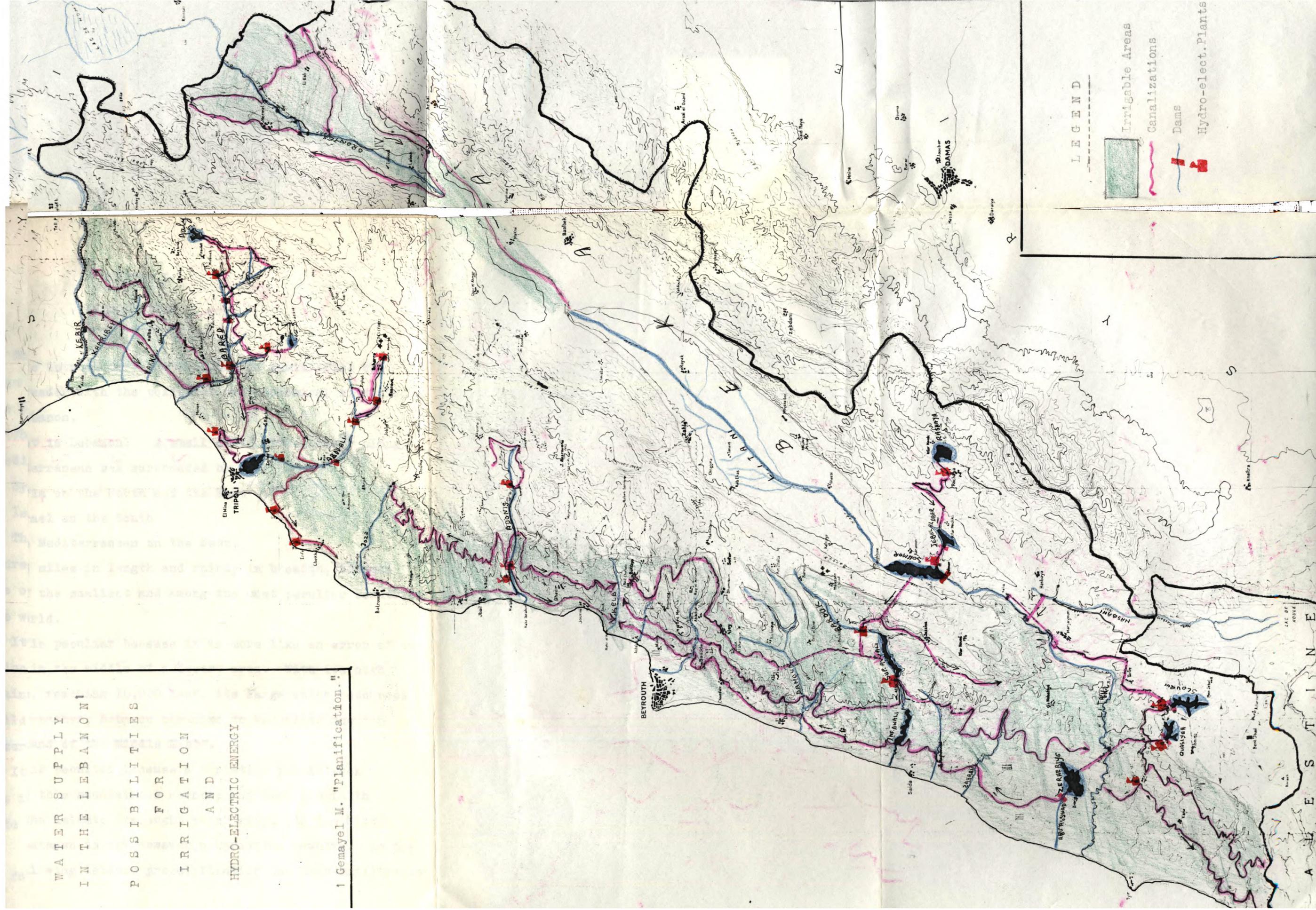
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WATER SUPPLY
IN THE LEBANON!
POSSIBILITIES
FOR
IRRIGATION
AND
HYDRO-ELECTRIC ENERGY

1 Gemayel M. "Planification."



LEGEND

- Irrigable Areas
- Canalizations
- Dams
- Hydro-elect. Plants

CHAPTER I.

INTRODUCTION.

This introductory chapter aims to familiarise the foreign reader with the political and economical situation of the Lebanon.

What is Lebanon? A small strip of territory along the Mediterranean sea surrounded by :

- Syria on the North and the East
- Israel on the South
- The Mediterranean on the West.

A hundred miles in length and thirty in breadth, Lebanon is one of the smallest and among the most peculiar countries in the world.

It is peculiar because it is more like an error of the creation in the middle of a desert area. With its high mountains, reaching 10,000 feet, its large water resources its mild weather, Lebanon has come to be called the "Switzerland of the Middle East".

It is peculiar because a Christian people took refuge in this mountainous country and kept its faith despite the Islamic onslaught which swept all the Middle East. Lebanon is not however a Christian country. In the years following Islamic proselyfisation the Arab infiltration

found its way in the country and occupied the sea shores and the plains in the South and the North. This was a peaceful penetration. The invaders most of them political refugees were amalgamated with the Lebanese people and many of the big Islamic families, who settled in the country, were even gained to the Christian faith.¹

Today we have in the Lebanon a strong minority of Moslems with a small majority of Christians (57%). This makes Lebanon the only place where the two most fanatical religions, Islam and Roman Catholicism² meet and have to live together.

This coexistence of religions makes the country more peculiar since all the political structure in the Lebanon is based on this religious division. The parliamentary representation is proportional to each religious group. Thus all the political life of the country is a compromise between the Moslem and the Christian populations and although the relations between the two groups are not unfriendly yet each one of them keeps to his own faith and religious feelings are stronger than the national one.

This situation has created a number of controversies and contradictions threatening the existence of the Lebanese entity. In Middle Eastern countries the national feelings

-
1. Mainly the Chehab and the Dahdah.
 2. The largest Christian group in the Lebanon, the Maronites, is a R.C. Sect.

are much more religious than political, and political attitudes are strongly influenced by one's religious beliefs. This could be explained by the fact that:

1. Islam was not only a religion but a political reality as well. The head of the state the "Caliphe" was at the same time the head of the Moslem religion. The temporal and spiritual powers were thus concentrated in the same hands, and Al. Gouilly attributes the decay of Islam to the division of the temporal and spiritual powers and feels that Islam would always tend to their reunion. ¹

2. Judaism is also religious and political. Such concepts as "the people of Israel" ... the "Kingdom of Juda" ... and "the promised land", in a way link a religion to a definite territory. Hence the claim of the Jews on Palestine.

3. Christianity in this respect is at a disadvantage since the doctrine has nothing to do with politics. Yet the confusion of the political and religious feelings which we notice in the Christian population of the Lebanon could only be explained by the reactionary attitude it had to take to face the environing religions.

This confusion of religions and political beliefs has given rise to what I would call the "Fallacy of Arabism". The doctrine claims an "Arab Nationality" to group all the

1. Al. Gouilly: L'Islam devant le monde Moderne (introduction).

countries of the Middle East and is based on two arguments.

1. Linguistic community: Arabic is spoken all over the area.
2. Racial community: All these countries are populated by the remnant of the Arab invaders who came with the Islamic conquest.

In fact language has never been the sole determinant of a nationality or else how could we explain the political distinctions between France and Belgium, Germany and Austria and more particularly those between Latin American countries.

As far as the racial community is concerned it would be vain to search for the survival of a race in a desert area with no natural defences and where huge displacement of population followed the score of invasions which swept the area.

The "Arab Nationality" is a fallacy which could not be defended on the above mentioned grounds. Yet there is a strong link between the countries of the Middle East. The only one in fact which gives them a real feeling of community is Islam. The Arab invasion carried a considerable force which whipped out all the heterogeneous entities, communities or tribes to englobe them all in Islam thus becoming a religion and a nationality. The sincere and impetuous transport of the neophytes made them

repudiate the past in function of the new imperative. Islam suppressed everything and gave to its followers a new life, a new nationality if not a new race.

It is only on this ground, brought by Islam, that we can speak of a political community in the Middle East. Professor Arnold Toynbee who shows great concern over the "Western virus of nationalism"¹ has overlooked the real problem. The Western world which still keeps strong nationalistic feelings even after two world wars, want to see an "Arab" unity in the Middle East. Such an attitude hardly understandable since it goes against Western interests and actual facts, can only be successfully supported on the ground of a religious community. We should not be speaking then of the "Arab Unity" but of the "Islamic" one from which the Lebanon with its Christian population, has to be excluded.

But in a secular age it is hard to claim political aims on religious grounds and this is the reason which gave light to a doctrine like the "Arab Nationality" which is a pretence to cover Islamic aspirations.

Unfortunately this idea of an "Arab Nationality" has spread over the Lebanon and it is curious to notice that the Moslem population holds to it whereas the Christians

1. In his B.B.C. talks in December 1952.

do not. This only shows that, in the Middle East, religious feelings are predominant and the political ones still dormant. The national feeling has not proved to be very successful in overcoming the religious one and in grouping the two communities of the Lebanese population. UNDER THESE CIRCUMSTANCES THERE ARE NO HOPES FOR THE LEBANESE NATION BECAUSE THE COUNTRY COULD NOT LIVE FOR EVER ON COMPROMISE AND YET, AT PRESENT, COULD NOT EXIST WITHOUT THEM.

The only possibility of a rapprochement lies within a secular approach to the problem and this seems to be a rather remote if not impossible perspective as long as each religious community is fanatically holding its position. The problem however exceeds the scope of this study and we only wanted to mention some facts known to many but too delicate and dangerous to cope with.

Now that we have reviewed the political situation in the Lebanon we shall turn to her economic condition.

What are the sources of income in the Lebanon? Unlike the neighbouring countries Lebanon is not only agricultural, since a long time ago it has become a trading community which traded all over the Middle East. The Lebanese, placed in a country whose geographical situation favours trade, is reputed to be a very shrewd merchant and it would be enough to say that -

1. Lebanese business men are dealing with a large part of the retail trade in British and French Africa.

2. Lebanese emigrants are considered as the wealthiest foreign community in many South American countries. ¹

It is only normal then that their business acumen enabled them to dominate Middle Eastern markets. Even today Lebanon draws a large part of her national income from trade and this fact has, so far, determined the rather liberal policy of the Government and the neglect of industry. Until very recently Lebanese merchants were the sole agents for most of the foreign products (cars, motors, machineries, chemicals etc.,) for all the Middle East, the situation today is no longer the same. All Middle Eastern countries are now compelling foreign firms to have native agents and Lebanon is losing many markets. With the growth of such a threat to its income derived from trade, the Lebanese economic policy of "laissez faire" has to change.

Should it turn towards industry as another source of income? In fact during the last war, which cut down all foreign trade, the Lebanese industries had a great expansion and were able to supply in consumption and even production goods -

1. L. El Dahdah: Le Role de l'Emigration dans l'economie Libanaise p. 129.

The home market

The Middle Eastern countries

The Allied Forces stationed in the area.

It was an unprecedented boom and on the whole the standard of living was higher than the present one. With the end of the war industries greatly reduced their volume of production and are facing a severe crisis because they were not encouraged by a sound economic policy.

The problem is not however in transforming Lebanon into an industrial country but rather in encouraging the industrial development which was brought by the war and in taking advantage of every industrial possibility.

The prospects for the Lebanese industries could be anticipated in the predominance they could have in the Middle Eastern markets. Although the purchasing power of the people in this area reduces considerably their effective demand, yet with the discovery of new petroleum resources and their exploitation the standard of living is rising rapidly and they will form more and more important markets for Lebanese products.

But what about the competition from within the Middle East? For how long would these countries carry on their primitive economy?

This brings us to analyse the Islamic world and its prospects. Is there any chance of an immediate "Islamic Renaissance" after the long decay in which Islam has

settled for many centuries? The example of Turkey might induce us to think that another Ataturk could bring the whole Islamic world into a new era.

In fact the success of Ataturk¹ lies within -

1. A complete adoption of Western civilization.
2. A repudiation of Islamic teachings (even the latin alphabet was introduced instead of the Arabic, that of the Koran).

We might wonder whether the same thing could happen in the Near East. It is my opinion that the "renaissance" of the Islamic world cannot be foreseen in the near future mainly because of the following dilemma.

1. To be successful, a "renaissance" should take as its roots the complete adoption of the Western way of life (which has proved to be closely linked and associated with progress). This can only be brought about by a secular policy, as it was the case in Turkey, putting aside and even opposing religious beliefs.

2. Or the renaissance might be based on religion and try to raise in its own ways the Islamic world to the level of Western civilization.

In both cases however the success is unlikely.

1. In the first case the whole religious power of Islamic fanaticism would strongly oppose any secular

1. And still for the many visitors touring Turkey it is obvious that Ataturk was only able to build up a European facade leaving behind it a very backward rural population.

approach. Furthermore we should keep in mind that Middle Eastern countries are mainly linked together by Islam and if you remove it you could not unite them.

2. In the second case it is doubtful whether a renaissance could be brought about merely by Islam. Islam has failed to meet the necessities of the new era established by the "industrial revolution". It has proved to be too much a static religion and in order to redeem the Middle Eastern world you have then to modify or oppose Islam. ¹

With such a dilemma, the role of the Lebanon which has often been described as "the link between the East and the West" could be decisive. After having taken the lead in the cultural development in the Middle East, ² this small country should take the lead in industrial expansion. This role might have been played by Israel because of the industrial genius of the Jews but the Islamic world will never accept the Zionist intrusion on its land.

Thus the prospects for an industrial development in the Lebanon are very encouraging. But there are other reasons which make it more and more urgent.

-
1. Some Moslem philosophers like Sayed Dgemal Eddin el Afghani taught in 1878 at the Cairo University that the East should take advantage of the Western inventions to oppose Europe and that there were no contradictions between the Koran and Modern Science.
 2. Lebanese writers played a preponderant part in the "cultural renaissance" of the Arab world since the end of the last century.

1. For the first time the country is faced with a serious problem of unemployment. More than 25,000 workers are actually unemployed. The country is overpopulated with a density of 120 per Sq/Kilmt. as compared with -

Syria	13
Irak	11
Great Britain	200
France	80

Every year more than 5000 people, the 5⁰/ooth of the population, leave the country (a comparison with Great Britain would mean 200,000 Englishmen migrating every year).

2. The income from industry is more advantageous to the population on the whole than the income from trade since it is more evenly distributed whereas in the second case the profits are concentrated in the hands of a few merchants who often invest their money abroad.

How far is the industrialization of the Lebanon desirable? Industrialization was closely linked with a high standard of living and it has become the symbol of economic progress and political independence. But today most of the industrialized countries are facing severe crisis and many an Englishman, for instance, would have preferred a less industrialized England with half its actual population. Furthermore the terms of trade are

now largely in favour of agricultural products.¹ Why should then Lebanon follow such an unappealing prospect? In a way Lebanon is faced with the same problem as Great Britain: overpopulation. Yet the advantage of Lebanon is that it will never rely solely on her income from industry. In the first chapter of this thesis we shall show that the actual income from industry is £172,000,000L² and that the capacity of production of the same industries could bring this income to £726,000,000L which would provide an appreciable extra income (of £750 per capita each year).

On the other hand a country should not rely merely on agriculture because of the wide discrepancies between the yearly incomes provided by the crops. Two or three bad harvest years could lead to a complete collapse of the structure of an agricultural country. Furthermore if the terms of trade are today favouring agriculture it is doubtful that they will remain the same once the actual international economical and political disturbances are removed.

It is then vital for the Lebanese economy that the industrial movement which has started during the war should be continued. A policy for industrial development should not be ambitious and seek self sufficiency for instance. On the contrary it should aim at a definite specialization in those

-
1. Colin Clark at the Congress of Monaco in 1949.
 2. The Lebanese £ is worth the 1/6th of the £ at the official rate of exchange and the 1/10th at the market rate of exchange.

fields where it has the greatest advantage.

It is no use subsidising industries which could not compete with the foreign ones. This is why we would be speaking in our thesis of an industrial development rather than of an industrialization which implies "industrialization at any cost".

Thus the income provided by industries would be an additional one - In fact the major sources of revenue in the Lebanon are: ¹

1. Trade L£200,000,000
2. Agriculture L£180,000,000
3. Remittances from emigrants L£150,000,000
4. Industries. L£200,000,000

There are two sources on which the country should not rely as much as in the past.

1. Income from trade which as we have said is diminishing.

2. The remittances from emigrants: this is undoubtedly the best income of the country since it is given free from any material obligation. Every year Lebanon receives something like L£150,000,000 in hard currency, mainly dollars. For a population of 1,200,000 inhabitants Lebanon has 1,500,000 emigrants scattered all

1. Since there are no accurate figures concerning the Lebanese National income, these are a rough estimation.

over the world and although most of them have acquired the nationality of their new country, still, many of them keep close relations with the fatherland. The problem is: how long could the Lebanon rely on such remittances? Although we can foresee that this income will not stop during the next fifty years, yet many extraordinary circumstances could put an end to this flow of capital pouring into the country. For three instances already we have been temporarily deprived of this support in the last thirty-five years.

- The two world wars.

- The economic depression of the 1930's.

As far as agriculture is concerned the prospects are certainly more favourable than those of industry. With a sound policy the income from agriculture could be ten times larger than the actual one. The Near East which used to be called the "granary of Rome" is actually hardly providing enough food for its own population. Again we should find an explanation for this transformation in the Islamic practices.

1. By the prohibition of usury Islam left only one channel for capital investment: land acquisition and we see in this area large estates and big landlords.

2. According to Islamic traditions "the hand that guides the plough is not respected" this is why all these huge domains were left barren. The land owners did not

take care of them since they still provided them with a sufficient income (though the people in charge of the land had barely enough to live).

In the Lebanon this state of things is found among the Moslem community. The Christian population is confined in the mountains and the tourist visiting the country is amazed by the conquest of these hard working peasants over the rocks and the mountains. A policy for agricultural development in the Lebanon should be one of definite specialization in order to take advantage of the large possibilities offered for certain appropriate crops.

Thus since the war Californian apple seeds of "Golden" and "Starken" have been planted in the country and it is said that they are now giving better results than in California.¹ We have known many apple plantations of these varieties yielding a net income of £500 per acre. This large opportunity is far from being adequately exploited. Most of the small landowners (and Lebanon is a country of small property holders) do not have the ready cash nor the necessary reserves to -

1. Transform their properties into fruit plantations.
2. Wait five years before the land starts yielding any income. By extending credits and creating efficient

1. The Clapp Mission (U.N.O.) favoured fruit plantations in the Lebanon.

agricultural banks the Government might help them in doing so.

Furthermore it is quite possible to convert some 150,000 acres into fruit plantations which would yield a yearly income of about £500,000,000 and raise the standard of living accordingly. But the hysterical insecurity in the Lebanon had a definite impact on agriculture. Self sufficiency was the aim of each small community and village since they were often cut off from the other parts of the country. The large famines which prevailed sometimes in the country confirmed the rural population in its aim. This explains the large fraction of the land devoted to wheat and potatoes which yield very meagre incomes. Lebanon should become the orchard of the Middle East where climatic conditions do not allow fruit plantations.

From this brief review of the Lebanese economy we could draw two conclusions.

1. The industrial development is becoming more and more urgent mainly because of the demographic situation.
2. Agriculture remains for the time being the major factor in the economic prosperity of the country.

CHAPTER II.

PRE-REQUISITE FOR AN INDUSTRIAL DEVELOPMENT IN THE LEBANON.

The industrial development of a country depends on a series of conditions which will determine its success or failure. The most important conditions as far as the Lebanon is concerned are:

The Natural Resources.

The Social Conditions.

S.1. NATURAL RESOURCES IN THE LEBANON:

The prosperity of a country depends in a large measure upon the variety, quantity and quality of its natural resources. Yet there are many countries with tremendous resources which still have a primitive and backward economy; prosperity then does not depend only on the existence of these resources but rather on the extent to which they are effectively utilized.

In the case of the Lebanon there are no accurate records of the available resources and we could not really tell about the wealth of the Lebanese substratum. As far as we know it is not as important as to permit the development of heavy industries but real exploration has never been undertaken. Few years ago, Sir Alexander Gibb, an English expert was invited by the Lebanese Government to report on

the Lebanese economy and this is what he had to say about her natural resources.

"A large proportion of the world's metallic minerals (iron ores and manganese ores being the principal exceptions) occur in association with igneous rocks of which the more important groups are :

- a. Granitic intrusives.
- b. Lavas mainly andesitic and rhyolitic.
- c. Ultra-basic intrusives such as peridotites.

With a. and b. are associated most of the sulphidic ores (copper, zinc, lead, silver, antimony, arsenic) and gold and with c. the pegmatite minerals including mica and uranium. With c. are associated, in many parts of the world, chronite, asbestos and magnesite." ¹

From these general principles, a superficial study of the Lebanese geology permitted to make some estimations on the country's resources. Although this study was far from being complete it enabled Sir Alexander Gibb to draw the following conclusions:

"Except for basaltic flows, Lebanon is completely devoid of igneous rocks. Moreover basalts are not usually associated with valuable mineral resources. The oldest rocks in the Lebanon are Jurassic in age. They are succeeded by cretaceous, tertiary and recent formations.

1. Sir Alexander Gibb "The Economic Development of the Lebanon". p.65.

All the mineral deposits both metallic and non-metallic associated with the archean basement are missing.¹

We have gathered in Table I the principal metallic and non-metallic minerals which could be found in the Lebanon. The problems however remain:

1. In the estimation of the importance and quality of these resources. It seems that most of the minerals existing in the country are found either in small quantity or of poor quality.

2. In a scientific and complete exploration of the Lebanese subsoil. We should not, as we are still doing, rely on estimations drawn from general principles and empirical studies. A scientific exploration of the Lebanese substratum should be undertaken by the Government in order to help making a judgment on the natural resources of the country.

1. Id. p.66.

TABLE I.

Principal Minerals in the Lebanon.

Source: Sir A. Gibb. ¹

Minerals.	Location.	Remarks.
Metallic.		
Galena	Mount Hermon	Quantity not determined.
Iron Ore	El Mrouje	Evidence of possible deposit.
Non-Metallic		
Building stone.	Widespread	Plentiful supply
Building material	" "	" "
Water	" "	" "
Petroleum	Sehmarra	Exploration in progress.
Lignite	Hechari-Nth.Leb.	Poor quality - not economical.
Asphalt	Hasbaya	Difficult of assessing deposit.
Silica Sand	Araya	Worth investigation for glass industry.

Table I stimulates the following remarks.

- a. Heavy Industries: The possibilities for the establishment of heavy industries like steel and structural engineering are almost non-existent.

1. op.cit. p. 67.

Lebanon should accept the fact that it would never become a heavily industrialized country and should not fall therefore in the trap of "industrialization at any cost". In this respect the example of Turkey could be considered. This country built up in 1939 metallurgic industries operating at a high cost of production.¹ Lebanon should concentrate on building those industries which could rely on cheap local raw materials. Of course it would be technically possible to introduce in the country steel works and other heavy industries but the scheme would be uneconomical.

b. Petroleum: Although there is a need for investigation concerning the petroleum resources of the country yet the Lebanon is at present the major outlet to the sea of the Iraki and Seudi Arabian petroleum. There are so far two pipe lines bringing Middle Eastern crude oil to the country from where it is shipped to Europe and the United States.

The Irak Petroleum Company's pipeline from Kirkouk to Tripoli where there is an important refinery with a volume of production exceeding 500,000 tons a year.

The Transarabian pipeline from Seudi Arabia to Saida where another refinery is now being built.

Thus without having any petroleum resource of her own the Lebanon is largely benefiting from what has come

1. J. Beaujen Gardier "L'Economie du Moyen Orient". p. 47.

to be called the "Black Gold" of the Middle East.

1. By the royalties given by the Companies to the Government.

2. The employment provided for thousands of workers. The I.P.C. alone, with her head-quarters moved from Haiffa (Palestine) to Tripoli; employs more than 2000 clerks in her offices. It is a fact that without this company Tripoli and North Lebanon would have known a very severe crisis of unemployment.

3. The supply of refined oil provided for the local consumption is a great relief to the Lebanese balance of trade. Before the war the country used to import all her needs in petroleum from Western countries. Today the Tripoli refinery satisfies all the local demand and relieves the reserve in foreign currencies from a substantial drain.

4. The expenditures incurred by the companies and the capital invested is highly profitable in countries where money is scarce. Only with the I.P.C. we could mention some expenditures spent in recent years. ¹

£21,750,000 in 1951 for a second pipeline from Irak to Tripoli.

£14,500,000 in the Mussul district for new explorations.

£18,000,000 in the Bassora district during the last six years.

1. Al Dastour 1st of June 1953. p.7.

In the Lebanon however the problem is to find out whether the substratum is likely to hide petroleum resources or not.

The petroleum reserves in the Middle East are explained by the fact that many millions of years ago an ancient sea, known as the Tethys sea linked the Mediterranean to the Persian Gulf. Large volumes of sediments accumulated in the Tethys sea and the organic remains of plants and animals were trapped in the sediment which in decomposing formed petroleum. This decomposition of organic materials created an over pressured gas which sometimes seeped to the surface and often ignited. This explains the "Sacred Fire" mentioned in the Bible. The former inhabitants of these lands had already used some derived products of petroleum such as asphalt and bitumen to make their ships and foods stores impermeable. The Bible again mentions that Noah sealed the bottom of his Ark with bitumen.

As far as the Lebanon is concerned there were slight chances of finding petroleum for two major reasons.

1. The country is on the fringe of the area supposed to have been covered by the Tethys sea.

2. The Lebanon is an area of intense mountain building. Great heat and pressure are generated at depth by the intense rocks movement such as the friction of one rock mass moving across another. This resulting heat

and pressure "breaks" the petroleum down and may drive it out completely. Reservoirs of petroleum near the surface may be exposed by the accelerated erosion in areas of high relief resulting in the petroleum seeping to the surface and being lost.

In spite of all these adverse conditions the Lebanese Petroleum Company, a branch of I.P.C. undertook serious exploration in Northern Lebanon at the foot of the Turbol mountains and after digging down to 6,000 feet they reached no positive results. Today the country is hoping to find petroleum resources in the South East. The discovery six years ago in the village of "Shehmara" of some rocks containing abundant marine fossils might be an indication of the existence of petroleum resources in the area. After six years of research there are strong evidences of finding petroleum in "Shehmara". On the 21st of February 1953 the first trial boring, financed by Lebanese capital, was inaugurated. The experts are decided to dig ten wells of an average depth of 7000 feet.¹

The discovery of petroleum might mean sudden prosperity to the Lebanon since it is more able to grasp the benefits from this resource than the other Middle Eastern countries. In fact these countries were unable to exploit themselves these resources when they were first

1. "L'Orient" 22nd of February p.1.

discovered and had to leave their exploitation to foreign companies. This brings us to the problem of nationalization which is taking today a paramount importance.

Nationalization of Petroleum: This study will put aside the legal and political aspect of the problem and only consider the practical economical repercussions of Nationalization.

In their exploitation of Middle Eastern petroleum resources most of the foreign companies were having the best part of the deal and their profits were highly exceeding the royalties paid to the countries concerned.

It might seem abusive that a country only owning the natural resource should ask an equal share of the profit from the company exploiting it and incurring all the expenditure and investments. These investments often reach gigantic figures and to mention only the Anglo-Iranian Oil Company an investment of 500 million pounds was needed. Why should then Iran and other Middle Eastern countries ask for a fifty per cent participation to the profits when they are doing nothing for the exploitation of their petroleum resources which would have remained unproductive without the help of foreign companies.

To the Western comprehension an equal share might seem unfair to the concessionary companies. Thus in the United States for instance a landowner can only claim 12%

of the value of the minerals found on his land.

In the Middle East the approach is different. If we assimilate the exploitation of the substractum of a land with the exploitation of the land for agricultural purposes we could find the systems of land tenure granting:

- a. Half the proceeds to the landowner
- b. A quarter to the tenant
- c. The remaining quarter to the one providing the tools and animals. ¹

This system of land tenure in the Middle East might explain the exigencies of the landowner (the state or the Sheikhs) for an equal share from the exploitation of the petroleum resources. I would even say that if we accept for granted the local practices of land tenure the owner of the resource is at a disadvantage since agricultural exploitation does not affect the future yield of the land whereas the exploitation of the petroleum would in future exhaust all the resource.

In the year preceding the nationalization of the Anglo-Iranian, the company had given 21 million £ to the Persian government and made a profit of 63 million £. ²

1. See Chapter IV Section I paragraph A. (p.85)

2. In the report of the Anglo-Iranian published in 1952.

This disparity between the respective profits made by the country owning the resources and the company exploiting them created a feeling of injustice and led towards nationalization which would enable the government to grasp more profits.

Today foreign petroleum companies are realizing the danger and are more and more willing to give the countries concerned a better share in their profits. Thus Kuwait and Seudi Arabia are now receiving 50% of the net profits and the royalties to Irak will increase from £31,000,000 in 1952 to £59,000,000 in 1955. ¹

On the other hand it would be vain to try proving that the companies exploting the petroleum resources in the Middle East are acting according to the best interest of the owner countries. Their main concern remains in extracting as much crude oil as they can without thinking about the exhaustion of the reserves and their spread over a longer period of time. According to many economists a major criteria for nationalization is the "maximum spread of participation and satisfaction (present and future) and co-ordinated use and direction of resources in the interest of the nation as a whole". ²

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1. Al Dastour 1st June 1953. p. 7.
 2. Professor S. Florence "The Logic of British and American Industries". p.224.

Furthermore it would be puerile to say that Middle Eastern countries would not be better off if they could exploit their resources themselves.

The problem is "could these countries exploit their own resources in their present state of economic development" and in my opinion the answer is certainly negative. All these countries lacked :

a. The investment capital needed to finance the exploitation and which in the case of the Anglo-Iranian alone amounted to £500,000,000. Such a capital could never have been found in Persia.

b. The experts, technicians, managers and even the skilled labour required to carry out the exploitation. The Bahrein Petroleum Company employs some 1200 foreign technicians and there are only 120,000 inhabitants on the island with less than ten capable natives having responsible jobs.

It is obvious then that Middle Eastern countries cannot for the time being exploit their resources by themselves, they should therefore accept the situation of a man forced to take a partner because he cannot run his business by himself. Furthermore they should gradually try to be prepared for the time when the concessions offered to foreign companies would come to an end.

C. Water Resources: Water is the major Lebanese natural resource. Many centuries ago the Romans had already seized the importance of this factor in the economical life of the country and had so ingeniously set up a system of ~~captation and canalisation~~ ^{dams and canals} that the water resources were used "to the last drop". Yet the Romans only used water for irrigation purposes whereas today the wide field opened to water for the generation of hydro-electric energy makes it a still more important asset in the Lebanese economy.

All experts, natives and foreigners, investigating the natural resources of the country come to the same conclusion "The Lebanon should exploit its vital factor: Water". Here are some of their remarks.

"Lebanon the reservoir of the Middle-East: Due to the fact that rainfalls are abundant in the Lebanon, and very scarce in the neighbouring countries with their desert weather, and that they are concentrated on a period extending over five months, water our principal wealth, makes the Lebanon the reservoir of the Near East. Lebanon could become a distributing centre of hydro-electric energy of all the neighbouring Arab states".¹

Sir Alexander Gibb had the following to say - "The exploitation of all hydrological resources constitutes one of

1. Maurice Gemayel: La Planification integrale des Eaux Libanaises". p.13.

the most vital problems of the Lebanon.... The principal natural resource of the Lebanon is water. From the degree of perfection in its exploitation and from the methods of its utilization depends the economic prosperity of the country".¹

Lebanon has become the reservoir of the Near East since the time when the high mountains forming the country have collapsed in their central meridian thus creating a central ridge (the high plateau of the Bekaa) separating two chains of mountains, Lebanon and Anti-Lebanon. In this central ridge were constituted three independent hydraulical reservoirs which marked the whole physical structure of the country.²

1. The first on the North formed the valley of the Orontes running deep into Syria.

2. The second forming the valley of the Litani on the south and remaining within the Lebanese territory.

3. The third, that of the Hasbani-Jordan, forming the valley of Jordan and oriented towards Palestine.

Apart from these three major reservoirs the water resources of the Lebanon are formed by twenty other smaller ones forming small valleys of minor importance.

Table II groups all the Lebanese water reservoirs.

1. *ff. id. pxi8. op.cit. p.18.*
2. *Id... p.31.*

TABLE II.

Water Resources of the Lebanon. ¹

Rivers	Length in Kilometers.	A Yearly flow in millions of cu/metres.
Nahr el Kebir	58	160
Nahr el Kharibeh	22	32
Nahr Arca	20	28
Nahr el Bared	24	125
Nahr el Moussa	18	100
Nahr Abou Ali	42	85
Nahr el Joz	38	45
Nahr Ibrahim	30	135
Nahr el Kelb	30	105
Nahr Beirut	24	45
Nahr el Damour	31	30
Nahr el Awali	48	28
Nahr el Zahrain	25	40
Nahr Abou el Assuad	15	30
Nahr el Litani	145	360
Nahr el Hasbani	21	50
Yammuneh Lake	4	70
Spring of Ras el Ain	-	28
Orontes	16	290

The major problem of the water supply in the Lebanon remains in the irregularity of its distribution over the year as is shown in Graph I studying the most important Lebanese river the Litani.

1. Jean Chidiac. "Water and Electric energy in Lebanon". p.11

GRAPH I.

THE FLOW OF THE LITANI (1)

cu/mtres

40
35
30
25
20
15
10
5

Sept. Oct. Nov. Dec. Jan. Feb. March April May June July Aug.

	cu/m		cu/M		cu/m
September	4.8	January	32	May	13.8
October	5.6 "	February	36.9 "	June	8 "
November	7.3 "	March	30 "	July	5.2 "
December	12.2 "	April	22 "	August	4.2 "

1. Jean Chidiac op.cit. p.19.

Lebanon is suffering from an excess of water in winter (materialized by frequent floods in Syria (Orontes) and in Palestine (Hasbani-Jordan)) and a shortage in summer when most of the rivers are nearly dry. The line to follow appears then very clearly: there should be established a system of water confinement which would regulate the general flow over the year and make use of all the available resources.

The second problem of the Lebanese water supply is that of its distribution between the two economic sectors which could use it i.e., irrigation and hydro-electrical energy. If we consider that: ¹

a. The net income derived, for agricultural purposes, from 1 litre second of continuous water flow is :

for spring crops: £185 - £260 L.

for summer crops: £1500 -£1700 L.

for plantations:

on the coast £3500 -£5500 L.

in the mountains £10,000 - £14,000 L.

b. And the net income of hydro-electrical energy from 1 litre second with a head of 1 meter is £1.85 L.
with a head of 100 meters and 1 m.³/sec. £185,000 L.

We realise that the prospects in both sectors are equally good and the problem of a choice in the distribution very difficult.

1. Gemayel "Planification..." p.23.

In my opinion, predominance should be given to irrigation because it is the most direct way of raising the standard of living of the small landowners.

Yet it is obvious that water could be used for both purposes at the same time. In fact water runs first in the high mountains, where it could be captured for generating electric energy, and then reaches the plains, where it could serve for irrigation. Thus the same water supply could serve for two purposes and this is the basic principle of the distribution of the water supply which the Government should realize.

There are some Lebanese rivers, however, taking their source in the high plateau of the Bekaa where no hydro-electrical plants could be built. They could only be built farther down and near the coast. In this case if the water supply is to be previously used for irrigation there would be nothing left for the hydro-electrical plants and the problem of distribution arises again. The example of the Litani, the largest Lebanese river, is very striking because:

1. It takes its source in the Bekaa
2. It offers large possibilities for hydro-electrical energy which attracted the technicians of the Point IV.
3. It runs through one of the poorest agricultural

areas in the Lebanon which if irrigated could provide a better standard of living to the population.

In this respect I would mention one of the greatest dangers of the Point IV, which has been created in order to help the economic development of backward countries; most of the foreign technicians of the Point IV are often unaware of the real needs of the country and they are more likely to consider the technical prospects of a scheme rather than its repercussions on the local population. Mr. Lewis a member of the commission of the Point IV made the following statement: "The works which will have to be carried out in South Lebanon are in my opinion more profitable for hydro-electrical energy than for irrigation".¹ In my opinion however the population of South Lebanon is much more in need of irrigation than electric energy.

What is then the best solution to the problem? It is obvious that the better the utilization of all the available water supply the larger would be the share devoted to each sector (irrigation and hydro-electrical energy). Mr. Albert Naccache a leading expert of ~~the~~ Lebanese water resources considers that the best utilisation of the Lebanese water supply should be made through "Integral planification".² He showed that there is a certain unity in the "system" of the water resources which should be exploited as a whole and not in taking every river separately.

1. "Commerce du Levant" 4th August. p.1.

2. In the book "Planification Integrale des Eaux Libanaises" by H. Gemayel.

"If we consider that some areas are drained by extremely abundant water flows and others suffer from scarcity, the problem is to find a system of compensation by which all the water reservoirs of the country would complement each other through a harmonious combination. What we risk without a planning is the extreme exploitation of a rich river, or even only the rich element of this river (electricity) and the abandonment of the poor stream. The risk in the exploitation of rich streams taken separately is a lower yield. Thus if the isolated exploitation of the Litani yields 10 and that of the Hasbani 5, the combination of the Litani, Hasbani would give a result not of $10 + 5 = 15$ but of $15 \times 5 = 75$."¹

With the serious lack of natural resources in the Lebanon the possibilities opened to Lebanese industries seem very restricted. The water supply of the country, under these circumstances, is the keystone of the Lebanese economy and from its exploitation could depend its prosperity.

1. A. Naccaché. Id. p.31.

S.2. ISLAM AND ECONOMIC PROGRESS.

A. Industrialization and Social Conditions.

The history of the "Industrial Revolution" ¹ might have been exhausted in its smallest details and yet very little has been said about the social impact of industrialization. The question why the "Industrial Revolution" has not occurred in most of the countries has not been fully investigated. Although we should reckon with the material difficulties (existence of mineral resources, financial possibilities) which in themselves were a natural selection of the countries able to exploit the benefits from industry; yet there are many countries with large natural resources which are still keeping a primitive economic life. The explanation to such a difference between countries should be sought in their social structure. It has often been said that industrialization was a "way of life" ² that it requires a certain social mentality ready to accept it and exploit it. The process of industrialization does not consist only in the establishment of manufactured industries but it implies a basic change in the economic and social structure of the country undertaking it. How far a people would agree to undergo a change in its way of life is the criteria for the success of industrialization.

1. The French conception of the "Revolution Industrielle" starting with the invention of the machine.

2. Jean Meynard. "La vie Economique" p.377.

The social mentality of each country differs from that of the others; it is made up of a mixture of ethnical characteristics religious beliefs and philosophical conceptions. It is mainly in this mentality that we could find an explanation to the unequal spread of the "Industrial Revolution" all over the world. In such a world it seems that the European white race was the only one able to understand the new age of the machine. All the other groups had to imitate the European way of life which has become synonymous with economic progress and civilization.

Professor Andre Siegfried made a remarkable analysis of the economical possibilities of each race ¹ and he considers that the European white man has established his superiority because of three major "conceptions".

1. Conception of knowledge: inherited from the Greek civilization which gave him the habit of confronting problems with a logic freed from superstition or magic. Consequently the European is objective and has a sense of proportion and time. He is able to adapt his means to his ends, he created the machine and controlled its expansion.

2. Conception of man: brought by the Greeks and Christianity. The human being is considered as an "individu pensant" able to use his reason and having a right to human

1. Professor Andre Siegfried: "Les Echanges Internationaux"

dignity and deserving liberty.

3. Conception of production: derived from the Industrial Revolution and made possible by:

A new method of thinking introduced by Bacon's induction and experimentation and Descartes' rationalization.

A new technique: the machinism, science is brought to serve industry. Science is no more contemplative as during the time of Archimedes but it becomes an instrument of power. ¹

Furthermore, the European is characterized by:

A critical spirit which weighs measures and even denies
A spirit of conquest and expansion which brought him to master large scale organization.

In this study we shall try to establish a relation between Islam and "Economic Progress". We shall be treading on dangerous ground and will probably call forth resentment but we shall in all good faith try to deal with the question objectively.

B. Economic Significance of Islam. ²

It is often difficult to connect a religion with the economic condition of the country where this religion prevails. The most important misleading factor, in a

1. Id. p. 68-69. op.cit.

2. Although the Lebanon is not a Moslem country we have found it interesting to study the Economic significance of Islam.

judgement of this sort, is that all of the theist religions came at a time where the present conditions of economic life could not even be foreseen. Hence the difficulty of finding in the teachings of a religion any clues which could help us judge the economic progress of a country through its religion. Furthermore, most of the religions were not very much concerned with economic conditions and did not tackle the problem at all. This is why we might not find much material in the Koran, for instance, to enable us to determine the impact of Islam on the present economic conditions of Moslem countries. Yet if we consider that industrialization is a "way of life" we realize that the way of life of a people is mainly determined by their religion especially when it is as influential as Islam. If as a doctrine therefore Islam could not give a complete answer to the question yet as a way of life it could provide an explanation for the economic backwardness of the Middle East. This hypothesis is emphasized by experience.

a. Turkey, a Moslem country, could not modernize itself except by a systematical divorcing of religion from state.

b. The only two countries in the Middle East where we witness a real economic development, Israel and Lebanon, are not Moslem.

c. In Egypt a leading Moslem country, most of the businesses are in the hands of foreigners, Greeks, Italians, Lebanese etc.,

We are not passing judgement on the Moslem religion as such, but rather trying to establish the fact that Moslem countries have not been able to comprehend the economic trend brought about by the "Industrial Revolution". What is now true of Islam was to certain thinkers also true of Roman Catholicism and it has yet to be disproved that the "Industrial Revolution" would have been delayed but for the advent of Protestantism.

This is why we shall study separately -

- The doctrine of Islam as taught in the Koran.
- The social mentality, brought by the doctrine, of Moslem countries.

1. The Moslem Doctrine and Economic Life.

In studying the Koran and the speeches of the Prophet ¹ we discover some definite attitudes concerning the economic life mainly as regards-

- The accumulation of wealth
- The rate of interest
- Agriculture
- Trade.

1. According to the Moslem faith the Koran is inspired by God and the words used are His. The speeches of the Prophet are his own teachings.

a. Islam and the accumulation of wealth: Unlike Christianity, Islam is not opposed to the accumulation of wealth.

In this respect Jesus Christ said "My kingdom is not of this world". "It is more difficult for a rich man to enter paradise than a camel..."

The Koran said: *ولا تنسى نصيبك من الدنيا* 1

"and do not forget your share in this world"

ربنا آتينا في الدنيا حسنة وفي الآخرة حسنة 2

"Oh Lord give us a good share in this world and a good share in the other".

In his speeches the Prophet said: "the best one amongst you is not the one who neglects the hereafter for this world, not even the one who does the reverse, the best one among you is he who takes from both." 3

The accumulation of wealth proved to be a driving factor of economic progress and we could consider that the contribution of Protestantism to economic progress was precisely in the breaking down of the rigid interpretation of the Catholic Church in this matter. The Koran seems then very favourable in this respect. But once the Koran permitted if not encouraged the accumulation of wealth it should have provided for its utilization. At that time there were very few channels for capital investment

1. Koran: Surate XXVII verses 77.

2. Id. Surate II verses 197.

3. Mohsen Barazi: "Islamisme and Socialisme". p.8.

Agriculture

Rate of interest and trade in precious metals.

b. Islam and Agriculture: Agriculture is not favoured by Islam. The Prophet had said "Dishonour comes with the plough"¹ and the Moslems seemed to have neglected the land on this account.

Acquiring land was the only way of investing accumulated wealth and this contributed to the formation of large domains. The landowner, however made a point of honour in not working on his lands and not even supervising the work of his "fellahs". This is why the productivity of the land in Moslem countries is very low.

On the other hand the status of the property laid down by Islam was that of a collective ownership rather than private property. This comes from the belief that "earth belongs to God and His representative on earth, the Khalife, is the only one who may dispose of lands in the name of God".²

This is why there were two categories of land which could not be owned privately ("Ghair Mamluka" i.e., not owned):

- Lands owned by a community as a whole for the general benefits (common pastures).

1. Al. Gouilly: L'islam devant le Monde Moderne" p.48.
2. A. Granovsky: Land Taxation in Palestine". p.21.

Miri lands: where right of property remains to the state and their usufruct given to individuals.

This status of the land was so complicated under the Ottoman Empire that due ownership is very difficult to prove, and there is great need for the reformation of the Islamic status on land.

c. Islam and the Rate of Interest: The Koran has a categorical attitude concerning the rate of interest.

الذين يأكلون الربوا لا يقومون الا كما يقوم الذي يتخبطه الشيطان من المس ذلك بأنهم قالوا انما البيع مثل الربوا واهل الله البيع وحرم الربوا... ومن عاد فاولئك اصحاب النار هم فيها خالدون 1

"Those who would swallow usury would walk up at the day of resurrection like the man who was slain by satan. Because they say: usury is similar to sale. God permitted sales but He forbade usury... Those who would deal with usury would be delivered to hell where they would remain for ever."

This formal forbidding of usury paralysed the economic life of the Moslem countries and in order to remediate they had to entrust the Jews and the Christians with the task of setting up their bank system. But as a consequence Jews and Christians became the masters of the economic life of Moslem countries.²

1. Koran Surate II, verse 276.

2. Al. Gouilly. "L'Islam devant le Monde Moderne" p.47.

While encouraging the accumulation of wealth Islam has thus failed to provide the necessary channels for its investment. This is the most important criticism we could direct against the economic attitude of the Koran.

With agriculture (the major factor in a primitive economy) surrounded by scorn and disdain there was no chance for the economic development of Moslem countries.

Furthermore if we appreciate the important role of usury in the formation of capitalism and the major importance of the rate of interest in the present economic life we can but say that Islam is not compatible with economic progress and we can understand the backwardness of Moslem countries.

It might be argued that economic progress could not really be judged merely through agricultural expansion and usury. But they are important as affecting:

Increased supply in agricultural raw material for industrial purposes.

Liberation of a labour supply from agriculture, which might be shifted to industries, if they were to be created.

Formation of an investment capital to encourage developments in new sectors of the economy.

Constitution of large stock companies and banking systems asking for private savings in return for a

certain rate of interest.

d. Islam and Trade: Concerning trade the Koran was quite encouraging:

واحل الله البيع

"God permitted sales". ¹

In his speeches the Prophet went even further and this is how he answered to the people of Medina who were complaining about the high cost of living: "Leave the creatures of God profit from one another". ²

Yet in spite of this tolerant attitude of Islam concerning trade, the Moslem population did not seem very interested in this form of economic activity. It might be explained by the existence in the Islamic world of small communities Christians, Jews, Greeks, Armenians, whose business acumen was superior to that of the Moslem population. These communities in a way monopolised trade transactions as they had monopolised all banking institutions. ³

We notice however that the Moslems in Africa, for instance, are very enterprising merchants. Is it because they are dealing with even less enterprising populations?

Nevertheless, as far as Islam is concerned, the doctrine was very tolerant if not encouraging in regard to trade.

1. The Koran Surate II verse 276.

2. M. Barazi "Islamisme et Socialisme". p.89.

3. Al.Gouilly "L'Islam devant le Monde Moderne" p.47.

2. The Moslem Mentality and Economic Life: We have selected a few predominant characteristics of the Moslem mentality from which we might explain the economic backwardness of Moslem countries.

a. The Lack of critical sense: Progress is often enhanced by criticism, and one of the characteristics of the European population was its critical sense which enabled it to reach an accurate conception of knowledge devoid of superstition or magic. It is a fact of experience that the most important conceptions against which the critical sense of a people reveals itself are religion and the form of Government: religion, because it goes very deep in one's beliefs and conception of life and is so important to the masses that the critic feels he should contest their validity for himself and enlighten the people; form of government, because it implies the subordination of one category of people to another.

Thus a criticism of the interpretation of the Christian faith brought the Reformation and the division of Christianity into many sects.

In this respect, mainly as far as religion is concerned, the Moslem people lack this critical sense characterising the European. For them the Koran is not the work of the Prophet, but the very words of God who inspired His Prophet. Moslems have then to accept the Koran literally without

altering a comma. ¹ No Moslem could have criticized the Koran without feeling he was criticizing God himself. This is why we cannot detect in the whole history of Moslem thought a single critical work directed against the Koran and Islam. Christianity has had many detractors but Islam remained unchallenged by its adepts.

On the other hand the Koran does not speak, as Christ did, in parables which could be interpreted in different ways. It is a plain language though beautifully poetical ² and its meaning, intended for a primitive people, quite unambiguous.

But once the "Moslem mind" has blindly accepted some fundamental beliefs, as religion and the form of government since in Islam the temporal and the spiritual were closely linked, its critical sense was likely to be blunt in the appreciation of other conceptions. In the economic field this bluntness of the critical sense might explain why Moslems did not deal in trade for instance where a critical appreciation of risks and profits is needed.

c. Fatalism: It would be interesting to study the causes and origins of fatalism in Moslem countries. Fatalism is that attitude of the mind which accepts events as they come with the deep conviction that they cannot be

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1. Even in reading the Koran Moslems should not alter the exact pronunciation without committing a sacrilege.
 2. The style of the Koran has never been equalled and this confirms the belief that it is the very words of God.

be changed. What is "Mektub" i.e., written for you in heaven, would be your fate.

It is difficult in fact to find support for this fatalistic attitude in the Koran. We might deduce however that the emphasis the Koran puts in God, Almighty, supervising everything for His creatures ... etc... had brought the conviction that the poor mortals could not do much in improving or changing their conditions and accept it as a fatality leaving the care of his destiny to God.

Fatalism is a typical characteristic of the Moslem mentality. We notice it in many common sayings which more than anything give a plain description of the mentality of a people.

لا تکرهوا شیئا لعله خیرا لکم

"Do not hate misfortune it might turn in your favour".

المنعوسی المنعوسی

"The Cursed upon will remain cursed upon".

الکتوب مکتوب و کل نسیبه

"What is written for you is already written and to everybody his fate".

The practical problem is to know: how could such a mentality affect the economic life of Moslem countries. What are the economic significances of fatalism in the Moslem mentality?

Above all fatalism reduces considerably the incentives

of people in their economic activities. If we consider the incentives which were needed for the establishment of capitalism we realize that Moslem mentality with its fatalistic attitude could not progress. Prosperity and success in business seem to rest in the hands of God. To people asking him to fix and tariff the prices the Prophet said: "Cheapness and dearness of commodities are in the hands of God. He fixes the prices".¹ Thus the fundamental mechanism of economic transactions are denied and since God could dispense with earthly treasures regardless of the work involved, the Moslem population stagnated in their way of living which remained unchanged since many centuries.

c. Immobility: The Moslem world is characterized by a definite stagnation of its social and economic life. Since the beginning of Islam the way of living of Moslem people has remained the same. This immobility which some orientalist consider as a "principle" would be interesting to trace in Moslem teachings. The speeches of the Prophet seem to interfere extremely with the ordinary life of people, their clothes, their food, their crafts etc... have been fixed and have not changed since.

The economic significance of this immobility is very important and as Lothrop Stoddard puts it:²

"The economic life was based on the principle of immobility. The western economic principles of the contract

1. Lothrop Stoddard "The New World of Islam".

2. Id. p.242.

and competition were practically unknown. There was no stimulus to progress, no change in wages, no aspiration to a better life. The various crafts were stereotyped and the apprentice only imitated his master rarely thinking of introducing new tools or methods of production."

We can see then that in the very few attitudes it took, Islam both in its doctrine and the mentality of its adept has proved to be incompatible with modern economic conceptions and is at the root of the backwardness of Moslem countries.

The example of Turkey might be used as a typical illustration: it is only in repudiating Islam and adopting the western conceptions that Ataturk was able to redeem his country from the stagnation in which it had remained for many centuries.



CHAPTER III.

THE ACTUAL STATE OF LEBANESE INDUSTRIES. ¹

S.1. HISTORY OF THE EVOLUTION.

In the world of today, the need and the will to industrialize is undoubtedly the outstanding phenomenon witnessed in undeveloped countries. Industrialization has tended to be considered as the symbol of economic progress and political independence. The "Industrial Revolution" has definitely established a classification of powers where the industrial forces seemed to be the major criterion differentiating the various countries.

This "Revolution" did not reach equally all the countries and some of them kept on to their traditional economic activities. Today we are under the impression of two civilizations having followed different ways and confronting one another across the gap brought about by industrial progress. This situation has divided the world into two groups.

-On one side the producers of raw material and food.

-On the other the producers of manufactured goods.

1. This chapter is a mere description of the actual state of Lebanese Industries and will not deal with their problems which will be tackled in Ch.V.

Many Western politicians thought and wished this situation to be everlasting. But in many backward countries the productive forces have started to develop and have led to the creation of national industries using their own raw materials and thus threatening the life of the old industrial countries in narrowing the "vital space" of their foreign markets.

What was the situation in the Lebanon?

At the time of the "Industrial Revolution" all Middle Eastern countries were under the domination of the Ottoman Empire the "sick man" who not only kept the Islamic civilization in stagnation, but also brought a complete decay of her spirit setting back the people to their primitive ways of life. After a spectacular expansion the Islamic world failed to cope with the age of the "Industrial Revolution". It is only the recent confrontation (after the first world war) with the European civilization that has shown the gaps to be filled.

The Lebanon should not however be assimilated to the Eastern, Arab and Islamic world, and the following considerations should be taken into account:

- Her geographical situation which makes her the bridge between the East and the West.

- Her Christian civilization as far as Christianity is connected with the West.

Her political status which for many centuries kept her, either as an autonomous or completely independent state, outside the grip of the decadent Ottoman Empire.

Yet the country had neither the material possibilities nor the prospects for a successful industrial development and followed the general trend, of primitive economy, prevailing in the Middle East.

Historically the real industrial movement only started by 1930 and its evolution could be divided into three different phases.

The origin: 1930-1940

The War Period: 1940-1945

The Post War Period: 1945-1952

Today, in their process of industrialization, backward agricultural countries, according to Prokopovicz, must follow several stages before reaching the level of modern industrial countries.¹

- To start with the country should rely on an increased agricultural production. At this stage the industrial production appears as an auxiliary branch of agriculture, only transforming the agricultural raw materials into manufactured goods.

- In the second stage of their process agricultural countries would start producing ordinary consumption goods

1. S.N. Prokopovicz. "L'Industrialisation des pays agricoles". p.57.

for the masses of their inhabitants.

- The third stage of the process is characterized by the creation of heavy industries able to produce the capital goods needed for further expansion.

In the Lebanon however the process of the industrial development did not exactly follow these lines. In fact World War II accelerated the process and mixed together the regular stages of the industrial development of a backward agricultural country.

A. The Origin of the Lebanese Industries: 1930-1940.

After the first world war Lebanon was placed under a French mandate and thus came to be directly connected with European economic conceptions. Although the mandatory power was not very eager to develop industries in the country in order to keep it as a market for French products. Nevertheless, since 1930 an industrial movement started in the Lebanon for the following reasons:

.There was by that time a great amount of idle capital and the fluctuations of the franc in the thirties induced many financiers to invest in industry and become industrialists.

.The 1930 depression had brought a great fall in the prices of production goods and some Lebanese merchants who had been for many years the agents of foreign firms

were more and more realizing the importance of industry and took advantage of the depression to buy their industrial equipment. ¹

- Many Lebanese emigrants in the United States had acquired a direct knowledge of industrial techniques and some of them came back home and introduced suitable industries.

These reasons however did not lead to a spectacular industrial development. In fact certain difficulties that were encountered slowed down the process and did not encourage a further expansion. The main difficulties were:

- The lack of any government help. As was mentioned before the French Mandatory power did not favour the creation of new local industries. Textile industries, for instance, found difficulties in importing their dyes from Germany because of the high custom duties ² levied by the mandatory power.

- The internal market showed a marked preference for foreign products.

B. The War Period 1940-1945.

This period could be considered as that of the "Lebanese Industrial Revolution". During the war hundreds of factories were built and by 1945 they were able to

1. Marwan Nasr "Lebanon's Industries". p.d.e.

2. Mr. Marwan Nasr ~~apxakt~~. p.e.

produce not only all needed consumption goods but also many production goods.

In five years time the country has past from the first stage of the normal process of industrialization to the third one.¹ The major causes of this acceleration were the following:

The war cut down all imports from Europe or the United States and the country had to be self sufficient.

The prices of consumption goods during this period went up considerably in the order of 1000%² and the stocks were rapidly depleting.

The Allied Forces in the Middle East created an important new demand which had to be satisfied.

Foreign competition did not exist and building new plants was a very remunerative operation. The problem was to produce at any cost.

C. The Post War Period.

After the war everything seemed to indicate that Lebanese industries were going to know an unprecedented boom. In five years time they had gained a large experience and industrialists made enough war profits to renew their equipment and machinery. In fact, at present, most of the Lebanese industries are completely

1. See Chapter II page 54.

2. The simplest way to estimate the change in the cost of living is to take the Sovereign gold £ as a basis. In 1939 it was worth £5 L. and during the war an average of £50 L.

modernized and could favourably stand a comparison in equipment and building with European ones.

Unfortunately after a small expansion following the war, industrial production slowed down very seriously.

Some factories closed down

Most of them had to reduce their scale of operation

Thousands of workers became unemployed.

By 1949 the crisis of the Lebanese industries was near catastrophe. The Korean war brought a certain relief but the situation is still critical because of the following reasons:

1. American and European industries had shifted rapidly from war to peace production and they were taking advantage of all the scientific and technical discoveries made during the war.

2. Lebanese industries had been born under very misleading circumstances where costs of production were not a test of efficiency, the problem being "produce no matter the cost". The post-war period confronted them with a problem of hard competition they had not experienced before. Moreover the international markets of raw materials which existed before the war were now difficult to reach and the big countries were almost monopolising them for their own needs.

3. The Government failed to adopt the necessary policy required by the harsh international competition which followed the war. There was a need for encouragement and not protection by high tariffs. Lebanese industries had to face foreign competition and the adequate policy was to provide them with conditions (subsidies, cheap raw materials etc.,) ¹ favourable for a low cost production. In fact the Government was not even concerned with the problems facing the Lebanese industry. This indifference might be partly explained by the fact that Lebanon was drawing a large part of her national income from trade and the country had become a centre of distribution for all the Middle East. Thus industries were neglected and had to fight their ways by their own means.

Furthermore some attitudes of the Government were in fact very harmful to the industrial development of the Lebanon. If we examine the tariffs imposed on imports we realize that the Government considers custom duties merely as a budgetary source of income and a sort of indirect taxation. ² Thus important raw materials and machinery were highly taxed and Lebanese industrialists already confronted with a problem of high costs of production had their costs increased because of high tariffs.

1. See Chapter V.

2. There is an average imposition of 25 to 35% on all imported commodities.

Under these circumstances Lebanese industries had to slow down their production and even lock out.

S. 2. THE EXISTING LEBANESE INDUSTRIES.

A. Classification.

For the purpose of easy classification we have gathered all Lebanese industries into five large groups:

1. The foodstuff group of industries.
2. The tanning and shoes group of industries.
3. The building materials group of industries.
4. The textile industry.
5. Miscellaneous Industries.

1. The Foodstuff group of Industries:

Many industries in this group have the great advantage of relying on cheap local agricultural products and are thus in a good position for a large expansion. Most of its factories were built during the war and today all of them have been completely modernized and could favourably stand a comparison with similar European plants.

a. The Alcoholic drinks Industry: could be very promising. The Lebanese beer (french type) is particularly appreciated and many foreigners visiting the country prefer it to any other foreign brand. It is actually exported all over the Middle East.

The "Arak": the national drink made of the best grapes and aniseed could reach international fame. No

foreigner has tasted it but likes it. "When drank it gives that feeling which made the poet feel that he is prince of princes".¹

Arak should secure good markets in France, Italy, Greece, Turkey, North Africa etc., where similar drinks (Pastis and Pernod in France, Raki in Greece and Turkey) are provided.

The Lebanese alcoholic drinks cannot rely on the Middle Eastern markets since Moslem teachings forbid their consumption.²

b. The Jam and Preserve Industry: has known during the war an extraordinary increase in the demand of its products. Lebanon that "orchard of the Middle East" has a wide variety of excellent fruits and yet today the industry is not able to compete with foreign ones who secure the sugar at a much lower price. There are still in the Lebanon high tariffs on sugar and industrialists have been asking in vain their removal.

c. Biscuit, macaroni and Chocolate Industries: are equipped with the newest and best machinery. Their capacity of production is much larger than the local demand and the surplus is exported to neighbouring countries. One of the greatest achievements of these industries is that they have been able to break down the common prejudice of the Lebanese consumers, against local products.

1. "Lebanon's Industries." p. 42.

2. Some countries (Seudi Arabia) forbid their import.

d. The Vegetable Oil Industry: is a very big asset to the Lebanese economy because it is an excellent item of export to zones of hard currencies. Lebanon's traditional industry: olive oil is certainly one of the best in the world. However there is a great need for rationalization and standardization of the product.

The industry is divided into 400 plants scattered all over the country and only working during the period of the gathering of olives i.e., September and October. Furthermore they produce too many varieties of products.

All the varieties of olive oil (determined by their degree of acidity) should and could be reduced and thus standardized the product could more easily find importers.

2. The Tanning and Shoe Industry:

The tanning industry is a century old. It came from Egypt. The place of its birth and expansion is a small village called "Mashgara". It is said ¹ that a hundred years ago a "Mashgara" man took refuge in Egypt, after having committed a crime in the Lebanon. There he worked in a tannery and acquired the skill. Many years later he returned to his village and passed on his experience to his fellow villagers. Until recently the industry consisted of very small and rudimentary factories. When machinery was introduced the industry expanded rapidly. During the war

1. "Lebanon's Industries" p. 75.

new factories of European standard were built in order to supply local demand.

- The shoe industry, however, produces only a fraction of the total demand. In the Lebanon unlike European countries most of the shoes are supplied by handwork.

- The mechanized industry on the whole is very efficient and its products compete easily in price and quality with the foreign ones. At one time appreciable markets were secured in France, Italy and Greece.

- A tennis shoe industry has recently been born and has very successfully raised the quality of its products.

3. Building Materials Group of Industries:

Since the second world war, Lebanese business men found themselves with a considerable amount of liquid capital secured from high war profits and most of them were attracted by that traditional investment on land and buildings. The high rents of houses and a tax exemption for five years on all new buildings encouraged and accelerated the expansion. In ten years time the aspect of the cities and villages was completely changed, the country looked like a building yard. In order to meet this rising demand the building materials industry had to expand rapidly and it did very successfully. "A palace in the Lebanon can be built now with locally made cement, lime, calcium carbonate, slags, doors, windows, electric bulbs, sanitary fittings, pipes and complete furniture".¹

1. "Lebanon's Industries". p.84.

Most of these products used to be imported before and had to be paid for in hard currencies.

The Iron Foundries: which flourished everywhere have been able to cast more than 4000 tons of cast iron a year and developed a very important export industry to Seudi-Arabia, Irak, Jordan and even Persia.

The cement industry: is undoubtedly the most prosperous industry in the country. The only factory existing operates on a large scale and its output rose from 6000 tons in 1932 to 300,000 tons in 1952; yet the industry is handicapped by the high cost of fuel and electric power which is five times higher than that of England. ¹

4. The Textile Industry:

The important fact about the textile industry is that its capacity of production is much larger than the local demand. In spite of this discrepancy the country is yearly importing a large stock of textile as is shown in the following table.

1. See Chapter V.

TABLE III.

Demand, Supply and Imports of Textile Products (1950)

Products	Local Demand ¹ in tons.	Production in tons ²		Imports ³ in tons.
		Actual	Potential	
Silk thread	35	9	180	419
Cotton thread	1,000	2,000	14,000	186
Silk	2,000	1,000	2,500	389
Cotton	3,000	2,000	2,500	2,214
Woollen	350	70	500	431
TOTAL	6,385	5,079	19,680	3,739

1. Lebanon's Industries.

2. See Table VII p.79 how the potential production is measured.

3. "The Economy" No. 6 and 7 June 1952 p.43.

Table III shows the dangerous policy of "laissez faire" which is flooding the country with locally produceable foreign goods at a time when all Lebanese factories are operating at a very reduced scale and many workers unemployed.

As we shall see in Chapter V, when studying the problems of Lebanese industries, the problems of the textile industry are in its costs of production and in finding markets for its surplus production. Middle Eastern and African markets could be secured if the costs were low enough.

The natural silk industry which used to be prosperous before the first world war has almost disappeared with the discovery of rayon and synthetic fibres. The situation today is that the country is not even supplying its own needs in raw materials as is shown in the following table.

TABLE IV.

The History of Cocoons Production in the Lebanon. ¹

Years	Production in Kgms.
1880	2,500,000
1890	4,600,000
1914	6,100,000
1919	500,000
1930	3,500,000
1934	1,800,000
1947	500,000
1952	600,000

1. El Dahdah "La Sericiculture au Liban" p.6.

5. Miscellaneous Industries:

This section groups very heterogeneous industries such as, soap, Petroleum Refining, cardboard, electric power plants, printing, matches etc... The most important however are:

a. Petroleum Refineries: Lebanon is the terminus of a large part of the Near Eastern petroleum. Two pipelines, one to Tripoli in the North and the other to Sidon in the South bring every year more than 30 million tons of crude oil to the Lebanese shores from where it is shipped to Europe and the United States. A part of this supply however is refined in the country.

There is actually only one refinery, owned by the Irak Petroleum Company (I.P.C.), in Tripoli. Another one, for the Arabian American Oil Company (Aramco) is being built.

The Tripoli Refinery was built during the war in 1940. After the defeat of France a pro-Vichy mandatory power ruled the country. As a consequence Great Britain blockaded the Lebanese coasts and closed the pipeline to Tripoli. The situation became soon very precarious and petrol stocks were rapidly exhausted. There was however a reserve of 400,000 tons of crude oil, belonging to the I.P.C. and a refinery was quickly set up to refine the product in order to supply the country and the Vichy army.

After the war the I.P.C. bought the Refinery from France and modernized it completely. Today the refinery is producing more than 500,000 tons a year, enough to supply Lebanon and Syria.

b. The Soap Industry: is the oldest of the Lebanese industries. Olive trees are grown in the country since many centuries and climatic conditions are particularly favourable. But there is a great need for standardisation of the product.

Production is operated on small scale in small plants with rudimentary machinery.

There are too many varieties of soap produced and each one of them in small quantities. The foreign importer would certainly prefer a standardized soap he could order in large quantity to a multitude of varieties provided in small quantities.

On the other hand although the washing soap is of a good quality there is much to be done in the better qualities of the toilet soap.

c. Electric Power Plants: it is disappointing to see that in the Lebanon where the mountainous nature of the country and the abundant water resources could make possible a large expansion of the hydroelectrical industry, the present production of electric energy is far below the needs of the country. As compared with other countries the per

capita consumption of hydro-electric energy is shown in Table V.

TABLE V.

Hydro-electric Energy available per capita. ¹

Countries.	KW.H available per capita.
Norway	4,000
U.S.A.	2,295
Switzerland	1,891
Great Britain	930
France	708
Lebanon.	66

The actual production is 80 million KW.H. and it seems that the water resources of the country could provide a production of 6 billions KW.H. making the Lebanon the centre of distribution of electric energy for all the Middle East. ²

In the meantime many Lebanese villages are without electricity and there are only five hydro-electrical plants producing the energy for the whole territory.

1. Jean Chidiac. "Water and Electric Energy in Lebanon" p.4.
2. Gemayel. "Planification" p. 70 and 72.

B. Statistical Measurement of Lebanese Industries.

In Tables VI and VII are gathered some figures concerning Lebanese industries. In a country where no official data is provided the problem was to find figures as accurate as possible. Under these circumstances we could only rely on one serious publication: Lebanon's Industry published by the Association of Lebanese Industrialists. Although this report gives most of the needed figures, it was thought important to check their results, through personal interviews with, and questionnaires submitted to, Lebanese industrialists.

But out of the 300 questionnaires sent to industrialists only 20% of them answered and their indifference was discouraging.

Fortunately however the large majority of answers came from industries with a small number of large factories and it was decided to concentrate on these industries where positive results could be reached with the gathered data.

Furthermore, since many industrialists keep records of statistical data about the industry in which they are concerned some questions (2-6-8) of the questionnaire were intended:

1. as a test of accuracy to check statements of different industrialists
2. to seek such information which they might hold.

The following are the questions asked:

1. Kind of industry.
2. Number of similar factories in the Lebanon.
3. Capital investment.
4. Number of workers.
5. Present volume of production.
6. Total production of all Lebanese factories in your industry.
7. Maximum production of your factory.
8. Maximum production of all Lebanese factories in your industry.
9. Number of additional required to reach maximum production.
10. Present cost of production per unit of your main manufactured product.
11. Cost of production per unit if operating at maximum production.
12. Problems of your industry.
13. What solutions do you suggest.

In cases of industries consisting of a small number of factories, cement, sugar refining beer, jam etc... the data was collected through personal interviews with industrialists concerned.

The problem is to know how accurate the figures given in Table VI and VII are,

The attitude to the accuracy of figures in the Lebanon is necessarily more lenient than in countries where reliable

statistical data are provided. Thus a 5 to 10% accuracy in the Lebanon might be considered as quite satisfactory.

The reliability of the figures given in Tables VI and VII should be judged according to the following facts.

1. Tests of Accuracy: From the answers received to questions 2, 6 and 8 it was possible to compare the statements made by different industrialists and work out a certain average, taking into account the reliability and competence of industrialists concerned. In fact, figures did not coincide exactly because they could not have come from the same source since, as we have said, these sources are nonexistent. When figures did exactly coincide they were considered as one information since industrialists might have been quoting the same figure passed through personal relation from one to the other.

2. Availability of data: The low percentage of answers received forced the investigation to narrow the field of industries studied and concentrate on those where a sufficient amount of data was gathered. These industries include mainly those with a small number of large factories such as Biscuit, starch and glucose, jam, macaroni, chocolate, sugar, beer, cement, paint, glass, electric bulbs, rayon and silk weaving, cotton weaving, matches, petroleum refining and electrical plants.

In all these industries we have been able to check the

figures given by the Association of Lebanese industrialists with those we have personally gathered.

For all the other industries we have relied on "Lebanon's Industry".

Some figures, especially those about the potential production in Table VII might seem exaggerated and abnormally high since some industries (i.e., jam) could increase their production by thirty times. We should bear in mind however that.

1 - A large amount of the existing fixed capital in most factories remains, at present, idle.

2 - After the war a considerable amount of equipment was imported to increase the war-time production and yet the present production is smaller than the war-time one.

TABLE VI.

The Lebanese Industries.

Original Table

Industries	Number of Factories	Capital Investment in £1000 L. ¹	Number of Workers.	
I Food Stuff Industry.				
A. Solid Products.				
Biscuits.	5	700	68	
Halawa	20	1225	123	
Starch & Glucose	4	1400	45	
Jams & Preserves	3	600	53	
Macaroni	6	1245	102	
Chocolate	7	2500	200	
Sweets	140	2230	1175	
Sugar	1	3000	723	
B. Liquid Products.				
Dairy	31	350	86	
Oil } Olive	450	5000	1000	
				Vegetable
Beer	3	4220	210	
Arak	140	1575	290	
Wine & Vinegar	60	450	100	
Ice	30	4000	565	
Light drinks	35	2500	200	
TOTAL		36810	5,463	

1. The sterling pound is worth 10 Lebanese pounds.

The Lebanese Industries.

Industries	Number of Factories.	Capital Investment in £1000 L.	Number of Workers.
II Tanning Industry.			
Tanneries.	60	5000	600
Shoes	15	1500	800
III Building Materials Industry.			
A. Industries based on Stones.			
Cement.	1	8300	900
Paint	10	450	50
Bricks	8	1300	154
Floor Slags	86	3000	700
B. Wood & its Products			
Plywood.	3	820	100
Wooden chairs & furniture.	120	3500	1300
C. Metal Work.			
Foundries.	50	4000	500
Wire Mills.	2	850	30
Nails, Screws, Spring Locks.	10	1000	134
Metallic Furniture	14	390	70
D. Glass Works.			
Glass	2	700	70
Electric Bulbs.	1	917	56
TOTAL		31,827	5464

The Lebanese Industries.

Industries	Number of Factories.	Capital Investment in £1000 L.	Number of Workers.
IV. Textile Industry.			
Silk Reeling	24	400	450
Rayon and Silk weaving	17	3360	532
Woollen cloth	2	3524	140
Cotton spinning	8	19375	1400
Cotton weaving	10	25000	1130
Knitting	6	2680	450
Dying and Printing	6	350	35
V. Miscellaneous Ind:			
Soap	70	4556	285
Brushes	3	815	27
Radio Sets	2	250	100
Aluminium	3	600	22
Printing	85	5400	806
Cardboard	5	350	41
Matches	4	2200	565
Alcohol	4	340	46
Petroleum	1		
Electrical Plants	5	20000	600
TOTAL		89200	6629
GEN. TOTAL		157,837	17556

S. 3. ACTUAL OUTPUT AND POTENTIAL PRODUCTION.

The striking fact about Lebanese industries is that their potential production (i.e., the production which could be reached if all needed raw materials could be supplied and if all factories were producing at full capacity) is by far larger than their actual production.

As compared with other countries this seems to be an abnormal paradox. Everywhere else in the world industrial countries are concerned with the problem of increasing their production and its slightest decline is indeed considered as a catastrophe.

In the Lebanon we see the reverse. In seven years time the total industrial production dropped to the 1/4th of its capacity¹ and the Government did not show any concern over the problem. Lebanese factories have reduced their scale of operation for three main reasons:

1. The home market is too small to absorb their total output and shows a marked preference for foreign products. This preference does not indicate a bad quality or a higher price in the local products. It is simply a prejudice enforced by the clever advertisement used by foreign producers. In fact many Lebanese industrialists producing

1. Bulletin Economique et Financier No.24. p.1.

good and cheap textiles are branding them as Italians in order to sell them on the home market.

2. In order to reach foreign markets Lebanese manufactured goods had to be produced at a low competitive cost. This would have needed an encouragement by the Government ¹ but Lebanese industrialists had to fight their way by their own means and after the war their costs of production were often higher than those of their foreign competitors benefiting from a larger support on the part of their respective Governments.

3. For those industries producing at low costs, foreign markets could have been found if the Lebanese Government had tried to secure and enforce some bilateral agreement with other countries. But in a world of trade restrictions quotas and high tariffs foreign goods of more earnest Governments had priority over the Lebanese ones with a completely indifferent Government.

Furthermore, Lebanese industries came into existence under very abnormal circumstances brought by the war. At that time the demand for Lebanese manufactured goods was much larger than the effective demand of normal times since

a. More than one million allied soldiers were stationed in the Middle East and they preferred (for

1. The forms of the encouragement which were needed would be dealt with in Chapter V.

transport difficulties) to be supplied by local industries.

b. Many Middle Eastern countries did not have any industry and when war cut down their imports from the rest of the world they turned to the Lebanon for their supplies.

Consequently, Lebanese industrialists were misled in their evaluation of the demand for their products and after the war many of them incurred severe losses because of their miscalculations. Today industrialists in the Lebanon are not taking any risks and they have with resignation preferred to keep a very small scale of production.

Table VII is an original work showing -

The actual output of Lebanese industries with its market value and the number of workers employed.

The potential production, its value and the number of workers needed to reach it.

The potential production is that production which could be reached by the existing factories working at full capacity with a greater number of workers.

For some industries (cement, petroleum refineries) the potential production might require three shifts and a continuous production. The Lebanese workers are agreeable to extra work if this means better wages or larger employment.

TABLE VII.
Output and Capacity of the Lebanese Industries (1950)

Original Table

Items	Actual Output		No. of Workers	Potential Production	
	Production in tons.	Value in £1000 L.		Production in tons.	Value in £1000 L.
I. Food Stuff Ind:					
A. Solid Product.					
Biscuits.	500	750	68	3,000	4,500
Halawa	4,000	8,400	123	12,000	25,400
Starch	1,000	925	45	4,800	4,400
Jams	500	500	53	15,000	15,000
Macaroni	2,400	2,400	102	22,500	22,500
Chocolate	400	1,500	200	3,780	13,000
Sweets	6,000	12,000	1,175	12,000	24,000
Sugar	3,500	3,500	1,723	18,000	18,000
B. Liquid Products:					
Dairy	1,000	2,000	86	3,000	6,000
) Olive	4,000	8,000	1,000	15,000	30,000
Oil) Vegetable	4,300	7,500	423	25,000	48,700
) Sesam	2,300	5,175	100	7,500	24,200
	litres			litres	
Beer	2,000,000	1,050	210	8,000,000	6,800
Arak	1,000,000	3,600	290	3,000,000	10,800
Wine & Vinegar	1,000,000	780	100	3,000,000	2,340
Ice	42,000,000	2,000	565	100,000,000	4,500
Light Drinks	3,000,000	1,500	200	10,000,000	5,000
		61,680	5,463		265,140
					14,250

1. Except where it is specified, the volume of production is in tons.

Output and Capacity of the Lebanese Industry.

Items	Actual Production		Potential Production	
	Production	Market Value	Production	Value
II. Tanning Ind: Tanneries. Rubber sales Shoes } Rubber shoes Leather shoes	2,500 25,000 400,000 120,000	8,000 175) 2,800) 1,200)	5,000 1000,000 2000,000 5000,000	16,000 875 10,000 50,000
III. Coust & Bldg. Ind. A. Ind. based on stones.	300,000 450 950,000 6000,000 pieces	20,000 2,250 200 1,100	400,000 2,000 5000,000 10000,000 pieces	26,500 10,000 1,000 2,000
B. Wood & its products. Plywood Wooden chairs	2,000 ^{m3} 70,000 pieces	1,500 350	4,000 350,000 pieces	3,000 ^{m3} 1,750
C. Metal Works. Foundries. Wire Mills Nails, Screws, Locks. Metal Furniture	5,000 400 1,200 12,000	4,000 2,000 1,275 650	8,000 1,200 3,000 20,000	6,500 6,000 3,000 1,100
D. Glass Works. Glass Electric Bulbs.	600 200,000 pieces	400 100	2,000 3000,000 pieces	1,400 1,500
		45,200	5,464	140,625
				7,460

Output and Capacity of the Lebanese Industries.

Items	Actual Production		Potential Production	
	Production	Market Value	Production	Value
IV. Textile Industry				
Silk Reeling	9	1,200	180	4,000
Rayon and silk weaving	1,000	10,000	2,500	25,000
Woollen cloth	200,000	4,000	1500,000	30,000
Cotton Spinning	3,762	8,000	14,000	32,000
Knitting	240,000dz	5,200	700,000	12,500
Dyeing & Printing	300,000m	5,800	1200,000	3,200
Cotton weaving	2,000	10,000	2,500	12,000
V. Miscellaneous.				
Soap	4,500	11,250	18,000	15,000
Brushes	150,000p	600	1500,000p	6,000
Radio sets	1,430p	300	3,000p	600
Aluminium	50	150	1,100	3,300
Printing	1,450	2,000	2,500	3,500
Cardboard	300	150	1,350	700
Matches	40,000,000bx	2,000	125,000,000	6,500
Alcohol	540,000 litre	1,100	3,000,000 litre	6,000
Petroleum	500,000 T			
Electrical Plts	80,000,000 Kwh	7,000	6000,000,000	130000
TOTAL		172,680	17,556	726065
				37190

CHAPTER IV.

AGRICULTURE IN THE LEBANON.

S.1. PRESENT CONDITIONS OF LEBANESE AGRICULTURE.

Agriculture is not the main source of income in the Lebanon. It provides however an additional income for the third of the population and is the main source of livelihood for the 1/5th of it. Thus almost 55% of the Lebanese population depend on agriculture for their living.

For a long time the Lebanese peasant, isolated in his mountains amidst a hostile world, had to live solely from the products of his land. He was thus forced to take advantage of every bit of land he owned. The struggle between man and nature has been remarkable in these mountains where we sometimes see a rocky land covered with fertile soil in order to increase the peasant's income. In his fight against nature the Lebanese peasant has acquired a tenacity and an endurance uncommon to the oriental who is characteristically apathetic and reluctant to work hard. All the efforts of the Lebanese farmer have thus been directed towards the increase of his holding either by gaining it from the rocky lands or buying it from larger landowners. Hence the good distribution of land that we find in the country.¹ Lebanon remains a land

1. See Chapter VII.

of small property holders whereas in the Middle East there is a predominance of the large estates. This is a normal consequence of Islam whose prohibition of usury left only one channel for capital investments: that of land acquisition. On the other hand the predominance of large domains is a result of the weakness, ignorance and insecurity of the Arab peasant, the "fellah", who often preferred to give his land to a powerful landlord in exchange for his protection.

In the Lebanon we do not, in most of the country, see this influence of Islam and ignorance of the masses but still they do prevail in some areas. In this respect the country could be divided in two -

1. The region of small property holdings: which covers the largest area of the country including all the mountains and the centre with a predominant Christian population.

2. The region of large property holdings: with a Moslem population and including the south, the extreme north and the north east.

This division confirms again the influence of Islam on the formation of the big property.

A. The Land Tenure in the Lebanon:

Lebanon being a country of small property holdings, the land is usually exploited by the owner who gives it

good care and intensive cultivation. As far as indirect exploitation is concerned, a system of land tenure has developed which resembles the metayage system in Europe with however some particular characteristics. In this case the predominant fact in the exploitation of land is the complete dissociation between ownership and exploitation. Here again we find an Islamic influence made out of the scorn attached to work on the land "dishonour comes with the plough" has said the Prophet.¹ Hence the derogatory meaning of the word "fellaah" i.e., peasant which rather qualifies a person of inferior order. The "fellaah" all over the Middle East, remains what he was, with his same miserable life and the same scorn surrounding his condition. He is a characteristic Arab individual because his existence fits perfectly the social climate, of these countries, in the subordination of one class to another.

In the Lebanon the subordination of one person or class to another is foreign to the social structure and could not be justified by the mere fact of a material superiority. In fact the standard of mass education is far above that of the Arab countries.² Even the word "fellaah"

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1. Al. Gouilly. "L'Islam devant le monde Moderne". p.48.
 2. The percentage of illiterates is 20% in the Lebanon and 70% in the Moslem countries.

is not used, it has been replaced by that of "shrik" i.e, partner which is more adequate to human dignity.

As far as land tenure is concerned, there is no legislation enforcing the contract between owners and workers. This contract is rather a traditional and verbal agreement based on the same principle: the owner provided the land and the "shrik" his work. This state of things led to a very loose and imprecise system of land tenure varying with places and kinds of crops.

a. For lands devoted to vegetable and cereals: the crop is divided into four equal parts, two of them to the owner, one to the worker and the fourth to the one who provided the seeds, animals and the tools. Hence the word "Mourabaa", i.e., square given to this form of land tenure.

b. For lands devoted to plantations: the situation is quite different since the work involved is more important and does not yield remuneration before five to eight years, as it is the case with olive trees for instance, the system of land tenure in this case had to take into account,

1. That the landowner does not have the liquid capital required to pay the workers over such a long period of time. We should not forget that we are in a primitive economy where cash is rather scarce and where no real banking system exists (at least at the time of the adoption

of this form of land tenure).

2. That the worker also could not wait so many years without receiving due remuneration.

Thus a formula called "maghroussa" i.e., plantation was found and by which -

a. The owner engages himself to give the full ownership of the 1/4th of the land to the worker, provided the results and the time fixed for the trees to start bearing fruit are satisfactory.¹

b. In the meantime the worker could grow on the land any kind of complementary crop (cereals or vegetables) which he will keep for his maintenance.

On the whole the system of land tenure is unsatisfactory for many reasons.

1. The land given to the worker is too small (an average of 6 acres) to provide them with a decent living. The yearly income does not exceed £100 to £200² for a family of tenants.

2. The owner of the land does not take care of his property and productivity is very low.

3. There are no incentives for the tenant since overwork would not mean a much larger income. This is why methods of production remain primitive.

1. Although there are many similarities between the systems of land tenure existing in the Lebanon and those of the Middle East. The "Maghroussa" i.e., plantation is typically Lebanese. In the other countries, full ownership of the land is rarely given.
2. For more details see Chapter VII.

4. The worker is often at the mercy of his landowner. Although he could leave the land if he finds better opportunities yet he is often indebted to his landlord, who might have helped him during the years of bad harvest, and is in practice attached to his service.

Fortunately these systems of land tenure exist only in certain parts of the country where large property holdings require an association between landowners and tenants. On the whole however the prevailing system of exploitation is the direct one by the landowner since his holding is not very large to necessitate extra workers and even less tenants or "shriks".

B. The Yield of Land.

The concept of productivity is assuming, nowadays, great importance in agricultural life. With the shortage of food and the continuous growth of the population of the world the problem is to produce more food by increasing the yield of the land.

Technical progress has considerably increased the yield of land in some countries. Thus the yield of wheat per acre is 1.2 tons in Western Europe, $\frac{1}{2}$ ton in Eastern Europe and $\frac{1}{4}$ of a ton in China¹ and the Lebanon.

We then see the possibilities open to Lebanese agriculture whose methods of production are still primitive

1. Societe des Nations "Industrialisation et Commerce Exterieur". p.43.

and archaic. The problem in the Lebanon however, is not only in the increase of production and the introduction of better methods of cultivation; the country should only grow those crops yielding the greatest income. The problem is one of systematic selection of crops adequate to the climatic conditions (apple instead of wheat for instance).

The Lebanese farmer who has often known periods of starvation has been led to grow such necessary and vital products as wheat and potatoes without any consideration of yield.

The other problem of Lebanese agriculture is the small proportion of land actually cultivated. Out of a total area of 1,000,000 hectares there are only 170,000 hectares under cultivation.¹ With the large possibilities existing for irrigation such a situation should not continue. It will be shown later in this chapter that at least 150,000 hectares of barren land could be turned into cultivation.

The following tables VIII and IX show the yield in quantity and value of the main crops found in the Lebanon.

1. The hectare is an area of 2.47 acres.

TABLE VIII.

The Yield of the major Lebanese Crops. ¹

Crops	Yield per Hect: in tons.	Value of Yield in L. £.
Wheat	0.7	200
Olives	6	3,000
Tobacco	2	6,000
Oranges	12	4,000
Apples (Starken and Golden)	9	8,000
Bananas	15	5,000
Vegetables	10	3,000
Potatoes.	8	2,000

TABLE IX.

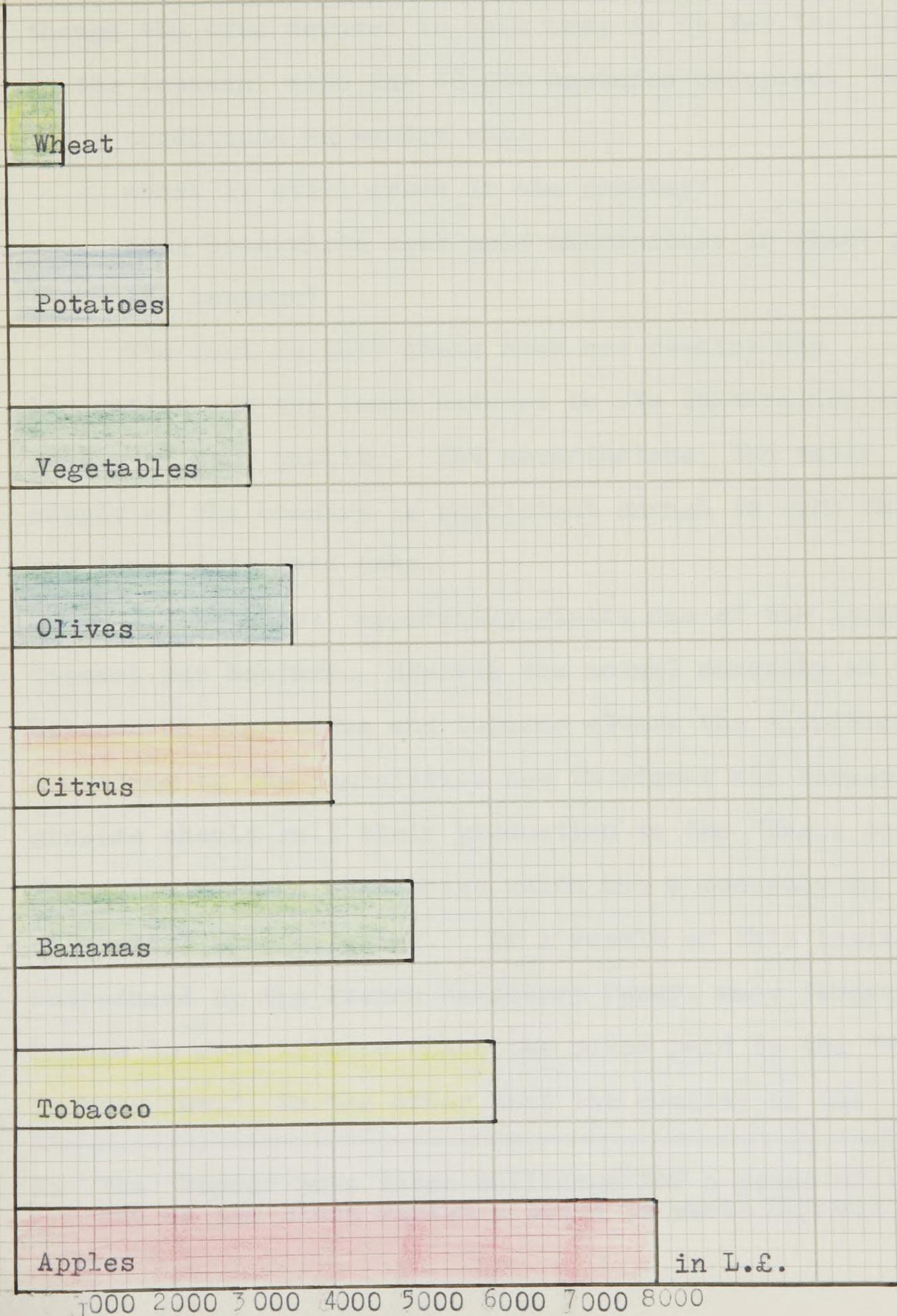
Areas affected to the different crops. ²

Crops	Areas in hectares.
Wheat and other cereals.	110,000
Vegetables	20,000
Fruit Trees.	38,000
Total.	168,000

1. El Dahdah "Le Role de l'Emigration dans l'Econ.Liban" p.35
 2. Rouhi Jamil "Le Guide Vert" p.65.

YIELD of some LEBANESE CROPS in L.£.

(per hectare = 2.47 acres)



in L.£.

1000 2000 3000 4000 5000 6000 7000 8000

These Tables VIII and IX call for the following remarks.

1. Wheat: The yield per hectare is negligible though the area devoted to this crop is by far the largest in the Lebanon, with the 68,000 hectares occupied. Under these conditions we wonder why:

wheat is still grown in the country?

Some economists seek self sufficiency in wheat for the Lebanon?

The fact is that wheat does not require any irrigation and the lands devoted to its cultivation are mostly of poor quality. But nevertheless, the water supply of the country is sufficient enough to turn these bad lands into good ones.

2. Tobacco: apparently yields one of the largest incomes per hectare. However the actual monopoly in the Lebanon on cigarettes and tobacco alters the situation. According to the legislation now in vigour all tobacco growers should sell their production to the "Regie des Tabacs" a private enterprise which has a monopoly on cigarettes manufacturing. As a result of this legislation, introduced by the French Mandatory Power, many farmers refuse to grow tobacco since the price paid by the "Regie" is very low.¹ On the other hand the quality of the

1. The "Regie" pays three shillings for a pound of tobacco and on the black market a pound is worth fifteen shillings.

Lebanese cigarette has considerably fallen since the inauguration of the "Regie" in 1935. A return to free enterprise and competitive conditions would certainly raise the quality of cigarettes and increase the volume of production of a tobacco reputed to be a very good "Turkish tobacco".

3. Fruits: they are in my opinion the hope of Lebanese agriculture and even of the whole economy of the country. Since the war, fruit trees, especially apple trees are manifestly expanding. The climatic conditions of the country proved to be perfectly suited to a new variety of apples (the red "starken" and yellow "golden"), imported from Canada and California. We have known a small property of less than three acres yielding about £800. In spite of these favourable circumstances the expansion of apple trees is far less than it should be.

There are actually only 6,000 hectares planted with the new varieties of apples and there is a possibility of extending this area to 50,000 hectares. With a proper policy Lebanon could become the orchard of the Middle East, where climatic conditions do not permit the growth of fruit trees.

Apple trees require relatively cold weather in summer and a sufficient water supply. The most suitable region for this plantation is an altitude of at least 3000 feet.

This area will cover most of the Lebanese mountains where water supplies are far from being scarce. However, this part of the country is that of small property-holdings where the average land ownership is three to five acres.¹ Under these circumstances 60% of the landowners -

1. Do not have the liquid capital necessary for the transformation of their land into plantation of fruit trees.
2. Could not wait the five years required before the trees start bearing fruit.

This problem could be easily solved by an adequate agricultural credit system which would help the small landowners.

Olive trees: it is the traditional plantation in the Lebanon with a good yield. Olive oil is one of our best exports to zones of hard currency. The production however could be very largely increased. The olive harvest is actually good only in alternate years. This is due to the bad methods of olive gathering. The total area devoted to the growth of olive trees is 15,000 hectares yielding an average of 40,000 tons of olive oil. This area could be expanded and the volume of production easily doubled.

The greatest difference between the yields of land is that existing between the irrigated and non-irrigated lands.

1. El Dahdah, Le Role de l'Emigration Ch.I Sect: III.

a. Irrigated Lands. They are usually devoted to the cultivation of banana, citrus trees and vegetables. The average yield per acre is as follows:

Bananas	6,000 Kgs.	£2,000 L.
Citrus Trees	6,000 Kgs.	£1,800 L.
Vegetables	3,000 Kgs.	£1,200 L.

Bananas: They grow near the coast mainly in the centre of the country. Although the results could be considered as quite satisfactory yet an amendment of the methods of cultivation would still increase the volume of production. When banana plants are well taken care of and the soil conveniently fertilized with a mixture of chemical and organic fertilizers (4 pounds of chemical and 10 of organic for each plant) the results obtained are remarkable. We have seen a banana plantation bearing hands of 100 and 120 pounds whereas on the average land they only weigh 40 pounds.

Citrus trees: The Lebanese orange is certainly one of the best in the world and yet we seldom find this product on the European markets. The main reasons for this deficiency are -

1. The lack of standardization of the product: European importers would like to rely on a definite classification of the oranges which is not carried out in the Lebanon. Furthermore, the dishonesty of some

Lebanese exporters shipping oranges of poor quality and in bad condition has discouraged further imports to France for instance.

2. The lack of government policy -

- a. To control the quality of the oranges exported.
- b. To find suitable markets.

Israel exports £4,000,000 of oranges every year, whereas Lebanese exports in 1951 were only of £500,000 there are no reasons for such a considerable difference in the exports of oranges between the two countries, since both are equally suitable for orange growth.

b. Non-irrigated lands: These lands have only the benefit of rainfalls. Since in the Lebanon we are deprived from this supply from May until October, the areas under this category are used for seasonal cultivations: From the second half of Autumn until the first period of spring these lands are mainly devoted to wheat and cereals growing.

The yield of the main crops is as follows: (per acre)

Wheat:	60 lbs of seeds	yield	360 lbs	£62 L.
Oat:	58 " " "	"	520 "	£52 L.
Maise:	24 " " "	"	290 "	£28 L.
Chick Peas:	34 " " "	"	410 "	£70 L.
Beans:	50 " " "	"	750 "	£85 L.

As we see the yield of non-irrigated lands is negligible and is not worth the seeds and the work involved

(an average of £6 per acre).

The unfortunate aspect of this problem is that most of these lands could be irrigated and hence be affected to more rentable cultivation.

The two major problems which confront the Lebanese agriculture appear to be -

1. The necessity of increasing the area of irrigated land by a full exploitation of the water supply of the country.
2. The selection of those crops which would yield the best income. This should be the object of a governmental policy which we are going to examine.

S. 2. THE POSSIBILITIES OF THE LEBANESE AGRICULTURE.

We have already said that the possibilities of the Lebanese agriculture lay with two factors.

Irrigation.

Selection of the most suited crops.

A. Irrigation.

With only 170,000 hectares of cultivated lands, out of a total area of 1,000,000 hectares, the Lebanon includes large areas which could be irrigated and turned to cultivation. It is believed that nearly 150,000 hectares could be irrigated and this would mean doubling the

proportion of lands cultivated at present. ¹

In many villages we have heard the same desperate appeal from the landowners "bring water to our fields". In most of the cases this water is only a few miles away running unused to the sea, carrying considerable unexploited possibilities and wasting the most important natural resource of the country.

Most of the experts visiting the country ² are unanimous in saying that an adequate exploitation of agriculture with large irrigation schemes would increase its yield tenfold.

Two thousand years ago, at a time when the actual technical means we dispose of were not even foreseen, the Romans had understood the importance of irrigation in Syria and Lebanon. Instead of feeding the natives with Roman wheat they had built a remarkable system of irrigation which brought water to every bit of fertile land and the country became to be known as "the granary of Rome". Today we can still see the remnants of this project showing us the line to follow.

In studying the possibilities of irrigation in the Lebanon we will take every region separately.

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1. Most of the information collected about irrigation is drawn from the remarkable work of Mr. A. Naccachi "Planification Integrale des Eaux Libanaises".
 2. Mainly Sir Al. Gibb and the Clapp Mission.

The Coast

The Mountains

The hinterland: the plateau of the Bekaa.

1. Possibilities for Irrigation.

a. The Coast: Stretching over a length of 120 miles on a very restricted width forming in some places small plains called "sahel". Not less than twenty-five rivers taking their sources in the mountains irrigate this small territory at remarkably regular intervals. This is why the possibilities of irrigation in this area could exceed 25,000 hectares most of them in the North and the South where we do find comparatively large plains.

I. North Lebanon:

This area, including all the coastal plains stretching from Tripoli to the Syrian frontiers, is irrigated by nearly seven rivers with a regular flow during six months and almost dry the remaining part of the year.

The Nahr Elkebir marking the frontier with Syria.

The Nahr Estouene 35 Km. long.

The Nahr Arka 20 Km.

The Nahr El Bared: the most important river in North Lebanon since it is permanently fed by no less than six small rivers and keeps almost the same flow all over the year.

The Nahr Abou Aly: the second river in North Lebanon has also many tributaries.

Nahr el Jaouzz.

Nahr Madfoun.

All these rivers only irrigate narrow valleys, whereas all the lands surrounding them do not benefit from their supply.

There are four possibilities for irrigation, which would turn into cultivation no less than 50,000 hectares of land.

1. A connection between the three northern rivers Nahr el Kebir, Nahr el Estouene, Nahr Arka, by three lateral canals.
2. The establishment of one large dam on the Nahr el Bared which could keep a reserve of about 50,000,000.^{m3} With six other smaller dams on the tributaries of this same Nahr el Bared.

Nahr Sir el Dannyel

Wadi Njoule

Wadi Sirri

Wadi Johanam

Wadi Schgig.

The total volume of accumulated waters would exceed 60,000,000 ^{m3} and could give in summer a constant supply of 3 ^{m3}/sec. which would irrigate about 7,000 hectares all over the summer.

3. The accumulation of the waters of Nahr Abou Aly who could help in the irrigation of the Zaouyet and Koura and the coastal area near Tripoli.
4. A connection by two lateral canals of the two rivers Nahr el Zaouz and Nahr Madfoun which would help in the irrigation of the large area South of Tripoli.

2. Central Lebanon:

This part of the country has a very narrow coastal strip leaving small possibilities for irrigation since these have already been taken advantage of during the French Mandate when all this part of the country was transformed into a luxurious garden.

3. South Lebanon:

The irrigation of this region would be studied with that of the hinterland plain the Bekaa with which it is connected.

b. The Mountains: The Lebanese mountains are very close to the coast and rise up within ten miles of the sea beach to an altitude as high as 3,000 feet. Farther on we can reach the crest of the Lebanese mountains with some peaks reaching an altitude of 9,000 feet. The mountains provide the most suitable conditions for apple tree plantations and if a water supply could be brought to this region all the Lebanese mountains could be converted into

a flourishing orchard, which would supply in fruits all the Middle Eastern markets. An irrigation scheme in this part of the country would be most beneficial since it is the most densely populated area of the country.

The possibilities for irrigation however are not as large as in the other parts of the country since we only find a score of small brooks and springs without any comparatively large rivers. Irrigation should be carried out through lateral canals linking together the various small brooks. Furthermore additional water supplies could be brought to these lands through pumping stations which would take the water from the different dams built lower down in the mountains.

a. The mountains of Akkar in North Lebanon are sufficiently provided with water supply since it is irrigated by the Nahr el Bared and its numerous tributaries.

b. The mountains near the cedars with Ehden Becharri and Hasroun are also sufficiently supplied with water with the Abou-Ali. A small canal relying Bechare to Ehden and Kfar Sgab could transform this area into a large plantation of apple trees which would replace the potatoes and wheat grown at present.

c. The Kesrouan: the most populated area in the country (also called Mount Lebanon) is rather poorly supplied with water. There are only very few springs

which are properly used. Water could be brought in by pumping water from Nahr Ibrahim.

The possibilities become larger as we go down near the coast where three large rivers could provide sufficient water.

The Nahr Ibrahim known in the mythology as Adonis because it was thought that a boar gored Adonis and the blood spurting through the wound gave this river on which several temples were erected.

The Nahr el Kelb.

The Nahr Beyrouth.

These rivers could also be linked together by lateral canals and irrigate the whole area.

c. The Hinterland: The Plateau of the Bekaa.

The Bekaa forms the largest plain of the country and provides an excellent area for an irrigation scheme. This high plateau of 2,500 feet altitude, 50 miles long and 18 miles wide, is mainly irrigated by the three largest rivers of the country.

The Orontes: on the North taking its source at the centre of the Bekaa and flowing into Syria.

The Litani: the only Lebanese large river since it takes its source and flows to the sea within the Lebanese territory.

The Hasbani-Jordan: which takes its source in the Bekaa

and goes down to Israel and Lake Jordan.

The Bekaa could be considered as the reservoir of the Near East since it supplies equally the Lebanon, Syria and Palestine. Both the Orontes and the Hasbani-Jordan have a very strong flow in winter and spring and form large swamps in Syria (near Homs) and Israel (near the lake of Houli.).

The possibilities of irrigation depend upon the following propositions mainly inspired by the Roman scheme which enabled this area to feed more than 35 million people. The idea behind these propositions is to capture in winter and summer the overflow of the rivers in order to provide enough water in summer and autumn.

1. The Orontes: could irrigate all the Northern part of the Bekaa either directly or by pumped water. The scheme is not difficult to undertake and would only require a convenient network of canals and pumping station.

2. The Litani: a series of topographical conditions facilitate the task of capturing the winter overflow of the Litani into four reservoirs of accumulation.

Sohmor at an altitude of 800 metres.

Wadi Slougin at an altitude of 410 metres.

Wadi Qayssiyet at an altitude of 410 metres.

Wadi Zerheriyeh at an altitude of 190 metres for the South.

This accumulated water would be used in summer to irrigate about 30,000 hectares of land.

3. The constitution of lakes of accumulation.

The former lake of Rachaya: which used to be a large lake of 2,15 Km. long and 2.00 Km. wide and which could capture some 171,000,000 m³ and be capable of irrigating some 20,000 hectares.

All these reservoirs would not only help to irrigate the southern part of the Bekaa but also all the south of the Lebanon. An interconnection between these reservoirs would provide a sufficient network of canals stretching all over the South.

To complete the irrigation of the South, advantage could be taken from the position of the two rivers, Litani and Awali which could be connected.

2. The Profitability of the Irrigation Scheme.

It is not within the qualification of this work to study the financial requirement and the costs involved in the irrigation of 150,000 hectares of land. These calculations are the task of technicians and engineers. Given these figures the economist could however establish their profitability and determine whether such a scheme is economically sound and worth undertaking. It is established that an irrigation scheme for 150,000 hectares in the Lebanon would approximately cost £150,000,000 L. ¹

1. This is an estimation since no studies were yet undertaken.

What would be the profits we could expect from this scheme.

a. The irrigated lands are mainly devoted to crops like vegetables, bananas, citrus trees, apple trees etc., giving the following yield per hectare.

Apple Trees	£8,000 L.
Bananas	£5,000 L.
Citrus Trees	£4,000 L.
Vegetables	£3,000 L.
Cereals	£1,500 L.

It would not be exaggerating to assume that the average yield per hectare would be £2,500 L. a year. Thus the total average yield of these lands would be:

$$150,000 \text{ hectares} \times £2,500 \text{ L} = £375,000,000 \text{ L.}$$

which far exceeds the total investment.

b. Furthermore, the value of these lands would considerably increase after they have been irrigated thus creating a "surplus value", which might be estimated. It seems that the difference in value between irrigated and non-irrigated lands is of £3,000 L per hectare.¹ The total increase in value of all the lands irrigated would be:

$$150,000 \text{ hectare} \times £3,000 \text{ L} = £450,000,000 \text{ L.}$$

Under such favourable conditions it is astonishing that the Government has not yet undertaken these schemes which would mean a considerable prosperity to the country.

1. El Dahdah. "Role de l'Emigration..." p.165.

The Government justifies its passivity by its impossibility to meet the comparatively huge capital required to finance such a scheme. But it is time to appeal to the Lebanese emigrants who are but too willing to invest their money in such profitable enterprises.¹

3. The Form of Organization:

The problem we are confronting, is the choice between:

Private concessions.

Public enterprise.

Both solutions are equally defensible.

Private concessions are supposed to sacrifice the public interest to the profit of the financiers.

Public enterprises are accused of inefficiency. Furthermore, nationalisation in the Lebanon would require a government taking to heart the public interest and it is unfortunate that in the present conditions of governmental corruption the State has not given so far any guarantee for good administration.

This state of corruption is a common feature in the political life all over the Middle East. In these countries, political parties are almost non-existent and members of Parliament are individuals elected because of their personal influence and connections in their locality and not on the ground of the programme they laid down or

1. El Dahdah, op.cit.

their allegiance to a party whatsoever. This is why the influence and the pressure that a party, in Western democracies, could bring upon a government has to be shared by as many people as there are M.P's in a Parliament. Since parties in general are more disinterested than individuals corruption is then bound to appear in a country where every M.P. has his own influence and a record of favours to ask for those people who supported him. As a consequence we see incompetent people securing, through their local M.P. many important jobs in the Government and this state of affairs leads necessarily to inefficiency and corruption.

On the other hand however it is vital that such an important scheme of irrigation, dealing with the major resource of the country, should not be given to a private concession who might sacrifice the public interest for its own.

The real problem in this choice, between private and public exploitation, is in my opinion that of management independently of the form of the enterprise. The quality of the management often determines the success of an enterprise (other things being equal).

As far as the state could employ the best brains of the country, to organize and direct its own enterprises, it is at a definite advantage provided its political

corruption is kept away from the enterprise. It is therefore important that the irrigation scheme should be protected against political interferences. In England a solution was found in the form of the Corporation's directing some nationalized industries.

I would then propose the constitution of an autonomous body which could be called "The Lebanese Irrigation Authority" and would take charge of the whole scheme.

The government would find the capital (through national and international loans) to finance the scheme.

The "Authority" thus constituted would be financially autonomous and attached directly to the presidency of the Republic, and not, as the Corporations in England, to a Ministry, in order to protect it from political interferences and corruption.

4. Returns expected from the Irrigation Scheme:

We are putting forward a scheme which is going to benefit thousands of landowners, most of whom could not share in the financing of the enterprise but certainly willing to contribute gradually to the refund of the capital invested since:

a. They would be earning an extra income we have estimated at £2,500 L. per hectare and per year.

b. The value of their property would increase by

what we have called a "surplus-value" i.e., an additional increase in the value of the land brought by irrigation.

The government could then levy special taxes on these lands in order to regain the capital invested and pay its interests. We have thought of two special taxes in order to help the government in doing so:

1. A progressive tax on the income derived from the irrigated lands shown in Table X.

2. A public assessment on all the landowners benefiting from the irrigation scheme.

TABLE X.

A Rate of Taxation on the Irrigated Lands.

Area in hectares	Yield in L.£.	Rate in %.	Return from the tax in L.£.
Up to 1	2500	5%	- 125
1 - 3	2500 - 7500	7%	175 - 525
3 - 6	7500 -15000	10%	750 -1500
6 - 10	15000 -25000	15%	2250 -3750
10 and above	25000 and above	25%	6250 -

As we see there are two particularities in this tax.

1. It is not a proper income tax since two bits of land with the same area, and yielding different incomes would pay the same tax since the yield has been fixed to £2,500 L. per hectare

2. The income from the land is determined and fixed at a minimum of £2,500 L. This income could certainly be increased since as we have already seen it is a minimum income we could expect from irrigated lands.¹ To give more weight to our views we have preferred to base our calculations on minimum rather than averages.

We have chosen this system of taxation for three reasons:

1. Agricultural production and the income derived from it is very difficult to estimate and often leads to tax evasion which would be prevented when the income from land is fixed in advance no matter what the real yield is.

2. To make it easier for the government to levy the tax since the calculations are made on a fixed yield of £2,500 L. per hectare.

3. To encourage landowners to grow crops yielding the greatest income thus making the tax less burdensome.

As far as the Public Assessment on irrigated lands is concerned we have thought of a rate of 15% on the additional value gained by the landowner on their lands now irrigated. As we have seen already this "surplus value" has been estimated to £3,000 L. per hectare.

The total income from this assessment would be -

$$150,000 \text{ hectares} \times \frac{3,000 \times 15}{100} = £67,500,000 \text{ L.}$$

In order to help the small landowners this assessment of

1. See page 105.

$\frac{£3,000 \text{ L.} \times 15}{100} = £450 \text{ L.}$ per hectare would be paid in five years.

What are the returns we could expect from the "special tax"?

Since we do not have any figures concerning the distribution of land in the areas to be irrigated we should beware the over-estimations we could make on the returns from the "special tax", this is why we have based our calculations on the minimum rate of taxation; i.e., 5% or £175 L. per hectare. We can thus establish an absolute minimum (making abstraction of the £67,500,000 L. of public assessment) of:

$$150,000 \text{ hectares} \times £175 \text{ L.} = £26,250,000 \text{ L.}$$

As compared with the £150,000,000 L. necessary to finance the scheme we see that the percentage of the return is of 17.5% on the invested capital which is more than enough to determine the government in undertaking the irrigation scheme Lebanon is needing.

B. Selection of Crops:

Once it has provided the land with sufficient water supply the Government should take a definite policy of crop selection. The value of the Lebanese agricultural production at present can be estimated as follows:

TABLE XI.

The Lebanese Agricultural Production. ¹

Crops	Occupied area in hectares	Production in tons	Value in £1,000 L.
Wheat	68,000	45,000	15,000
Other cereals	40,000	25,000	19,000
Olives	15,000	10,000	30,000
Tobacco	1,500	1,675	5,000
Wine	10,000	60,000	20,000
Citrus	6,000	70,000	25,000
Apples	2,000	10,000	10,000
Bananas	1,500	15,000	6,000
Water Melons	1,500	10,000	2,000
Plums	-	3,000	1,000
Pears	-	1,000	1,000
Pomegranate	-	6,000	1,500
Figs	3,000	5,000	2,000
Peaches	-	2,000	2,000
Apricots	-	5,000	2,000
Almonds	-	3,000	3,000
Medlar	-	5,000	2,000
Quince	-	3,000	1,000
Walnut	--	1,500	500
Melons	-	1,000	500
Potatoes	8,000	30,000	9,500
Haschich ²			40,000
Other crops			10,000
TOTAL			200,000

1. El Dahdah. op.cit., p.35.

2. This narcotic is grown in the Lebanon and smuggled to Egypt and the Government is trying to prevent its growth.

Table XI stimulates the following remarks.

a. The largest areas in the country are devoted to crops yielding the smallest income. Wheat and other cereals should not be grown at all in the Lebanon. At present we only produce 1/3rd of the local consumption of wheat and it would not be economical at all to seek self sufficiency in this product. The Lebanese lands should be better used.

b. The average yield per hectare is abnormally low. There is a great need for the improvement of the methods of cultivation in the country and the mechanization of agriculture.

c. There is a definite lack of expansion of the crops yielding the best income (apples, bananas etc.,) with the accomplishment of the irrigation scheme the possibilities for these crops would increase tremendously.

These remarks urge an agricultural policy with a proper selection of crops which would -

a. Yield the largest income.

b. Be the most suitable to the climatic conditions of the country.

c. Provide the best export products.

and would greatly increase the Lebanese national income and bring the standard of living of the country to a European level.

The Lebanese small landowner is indeed very willing to grow these crops which would give him the best income but he is not in a position to do so since he cannot dispose of the capital necessary to transform a potatoes field into an apple plantation. He needs credits that only the government could provide at a reasonable rate of interest. There is at present "The National Agricultural Bank" which has been created to help small landowners and which in fact extended its loans to those rich enough to press upon their local M.P. in order to secure their demands for credits. These credits were almost never used for agricultural expansion and more than £16,000,000 L. were thus lavishly distributed to wealthy landowners while the poorest ones were carving in vain for much smaller loans.

In order to show the possibilities opened to Lebanese agriculture we have selected in Table XII few crops with a large yield and determined the areas which might be devoted to them and the value they could thus provide.

TABLE XII. ¹

A selection of Crops in the Lebanon.

Crops	Area devoted in hectares	Market value of the yield in L.£.
Apples	50,000	300,000,000
Bananas	15,000	60,000,000
Citrus	40,000	120,000,000
Olives	50,000	150,000,000
Tobacco	10,000	30,000,000
Vegetables	75,000	200,000,000
Cereals	75,000	50,000,000
TOTAL:	315,000	910,000,000

If we compare this potential and possible, income of £,910,000,000 L. with the present income of £200,000,000 L. derived from agriculture we can realise the considerable repercussions on the standard of living that a proper agricultural policy could have.

1. This is of course just an estimation of what could be done.

CHAPTER V.

PROBLEMS OF LEBANESE INDUSTRIES.

In this chapter we shall examine the problems confronting Lebanese industries and attempt to provide some solutions.

In studying the phases of industrial development in the Lebanon we have seen that its real expansion started during the second world war when the country was almost completely deprived of its imports and had to produce for all needed consumption goods. The problem was one of production at any cost and in spite of the rudimentary equipment of many factories, unable to import production goods, the industries expanded very rapidly.

After the war Lebanese industrialists anticipating a further boom tried to increase the capacity of production of their factories and invested a large proportion of their war profits in renewing their worn out machinery. Most of the factories were thus equipped with the most recent machines and could compare with similar European plants. Unfortunately the industrialists were deceived in their expectation and within a short time Lebanese industries were in a severe crisis leading to:

- A drop in the volume of production
- The dismissal of many workers
- Some factories closing down

Today the main questions are -

- Why are Lebanese industries not expanding.
- What are the reasons of the crisis.
- What are the problems facing Lebanese industries.

S. 1. FINANCIAL POSSIBILITIES.

One of the primary conditions for the industrial development of a country is the existence of a capital ready for investment. In Moslem countries the channels for capital investment are restricted by the Koran. As a consequence money has come to be considered not as a source of profit but rather as a value which has to be kept for bad days. Thus a hoarding habit has developed and is still deeply rooted in Moslem people. The Orient which has been considered for many centuries as a reservoir of precious metals could not provide the entrepreneurs with a ready capital for their schemes.¹

In the Lebanon the situation is not the same. Although we notice these hoarding habits in the form of sovereigns and gold coins "buried in the garden" yet there are many speculators ready to invest their savings if they are provided with a good return. The problem is to

1. Lothrop Stoddard "Le Nouveau Monde de l'Islam". p.242.

know how important the financial possibilities are. They have proved to be quite satisfactory as far as small scale factories are concerned. During the war the industrial expansion was financed only by local capital.

But with the prospects of two large schemes such as

- Irrigation

- Hydro-electric plants ¹

the required capital might by far exceed the financial possibilities of the Lebanon. It is estimated that these schemes would cost 250,000,000 \$ ² and this amount exceeds the possibilities of a small country like the Lebanon.

Where to find the capital?

There are three sources from which such a large capital could be drawn.

A. Local Market Sources.

During the war a great amount of capital was accumulated in the country mainly for three reasons.

1. The spending of allied troops stationed in the Lebanon are estimated to have amounted to some £800,000,000 L. spent either for the maintenance of the troops or to the building of bridges, railways, barracks, etc... ³

2. The revaluation of stocks: Lebanon has been for a long time a centre of distribution of imported manufactured goods for all the Middle East. Just before

1. See Chapter VI.

2. Gemayel & Naccache "Planification Integrale..." p.55.

3. L. El Dahdah, "Le Role de l'Emigration..." p.68.

the war, Lebanese merchants anticipating the rise in prices imported a considerable amount of goods of all kinds which were stocked in the country. Unrestricted by any control prices went up very rapidly during the war (1000%) and these stocks brought to the merchants profits tenfold their original value providing them with comparatively large capital.

3. The industrial development: During the war industries were producing at full capacity, goods which were needed all over the Middle East and Lebanese industrialists made considerable war profits and accumulated large capital reserves.

All this accumulated capital could then be called for investment. The problem however is whether this money is likely to be invested in schemes which might yield a 10 to 15% return.

When we consider that:

- a. A large part of the war profits were already invested by industrialists in renewing their worn out machinery.
- b. A 10% return is not in the Lebanon a high rate of profit since buildings for instance, the safest of investment, yield an average profit of 12%. Furthermore it is not uncommon to see rates of interest of 20 to 100% asked by unscrupulous private banks or individuals. We realise that the local market of investment capital is difficult

to attract and there is a need of finding other sources.

B. The Lebanese Emigrants: ¹

One of the peculiarities of the Lebanon is in the large proportion of people who have migrated during the last eighty years. There are at present some 1,200,000 Lebanese scattered all over the world and their number almost exceeds that of the residents. The character of the Lebanese emigration is that most of the emigrants keep very close contact with their relatives resident whom they help financially. One of the main reasons for the comparatively high standard of living in the Lebanon is in the important remittances sent every year by the emigrants. It is estimated that nearly £150,000,000 L. twice the value of the country's exports are received benevolently every year. ²

Unlike others, Lebanese emigrants settle in trade rather than work in factories or mines. Starting very moderately, often as pedlars, they gradually, by their hard work and modest life, improve their condition. Today they form the wealthiest foreign colonies in many parts of the world. Such as Sao-Paolo, Dakkar, Saint Louis, Nigeria, Gaudeloupe etc... and their wealth is estimated to exceed many thousand million dollars. ³

1. 2. 3. Information concerning Lebanese emigration is gathered from the author's thesis le "Role de l'Emigration dans l'Economic Lebanaise".

Lebanese emigrants could then easily provide the capital required for the economic development of the Lebanon. In fact a small group of them could finance such important schemes as irrigation and hydroelectrical industry. ¹

Furthermore, emigrants are likely to be attracted by a 10% net return on capital, considered in many countries as a good rate.

C. International Capital.

There was a time, mainly at the beginning of this century, when foreign capital invested in a country meant the alienation of the national sovereignty of the indebted country.

Thus the political interferences of American investors, state or individuals, in South America, Cuba and the Pacific Islands brought what has been called the dollar's diplomacy, "La diplomacie du dollar". On the other hand, many Balkanic countries were at a time almost at the mercy of foreign governments having invested money in their enterprises. When Turkey was unable to meet her external debt an Anglo-French body "la dette Ottomane" was created in order to administer the Ottoman Empire's public debt. The French interference in Tunisia had also

1. One of these emigrants is Kablan Makari who left the country some forty years ago for Mexico is known to have a fortune of 300,000,000 \$.

its origin in the impossibility of the Bey to meet the debt he contracted towards France.

The British intervention in Egypt was also a step motivated by the British investments in the Suez Canal.

Today the situation is completely different. The world is divided in two hostile blocs and the United States stands as the champion of the free world. Communism appeals most to people with a low standard of living. As a remedy the Western democracies are trying to promote the economic development of undeveloped areas in financing if need be the industrial and agricultural schemes of these countries.

There are even international organizations like the "International Bank for Reconstruction" whose aim is to provide loans to member countries. "Point IV" is also an excellent opportunity for the Lebanon.

We should not then fall into the trap of demagogues pretending that the United States are only helping undeveloped countries only to subdue them. Apart from the determination of checking communism, the ultimate aim of the United States in helping backward countries might be that of increasing their effective demand for American exports but this does not mean "imperialism" or exploitation since these countries and their population would be better off after the American help.

Finally, private international capital in New York London, Paris and Hamburg might be attracted by a sound scheme offering good prospects once are known:

- The profitability
- The securities
- The chances of redeeming the capital invested
- The total amount of capital required.

If the irrigation and hydro-electrical schemes in the Lebanon prove to be economically sound they are likely to attract foreign investments. In fact in 1948 a Lebanese entrepreneur Mr. George Maasseri, asked the Government for a concession on the exploitation of the water resources of the country and was by himself ready to find the required capital to finance the scheme.

We can roughly estimate the amount of required capital for the economic development of the Lebanon (irrigation and electric plants) and the respective contribution of the above mentioned sources which could provide it.

- Required capital: 250,000,000 \$¹
- Expected income : 50,000,000 \$²
- The respective sources of capital investment.
 - Local Market sources: 25,000,000 \$
 - Lebanese Emigrants: 100,000,000 \$

1. A. Naccache "Planification..." p.55.
2. See p.110 & 160.

- International Capital.

- Int.Bank for Rec.	25,000,000 \$
- United States.	25,000,000 \$
- Private Banks.	50,000,000 \$
	<hr/>
	225,000,000 \$
	<hr/>

There are possibilities then of finding the investment capital needed for the economic development of the Lebanon.

S.2. THE MARKETS.

The major problem confronting industries in any country is that of finding a market ready to buy their products. In this respect the policy of most modern governments shows a marked preference towards export markets over the local market. From the producers' point of view it might seem that as long as their products are sold it does not make a difference whether they are sold at home or abroad. Why then do we see governments restricting the local demand in imposing purchase taxes in order to increase the volume of production which might be exported? The answer lies in the export multiplier, to which we shall refer later, ² and by which "the final expansion of the national income from export is not equal to the income from export but a multiple of it". ³ This is

1. M. Gemayel. "Planification...". p.57.
2. See Chapter VII.
3. J. Meynaud. "La Vie Economique". p.360.

why exports are more profitable to the economy of a country than the local consumption. This is why we see many governments striving to increase exports -

- By encouraging industries to increase their production and lower their costs
- By securing foreign markets.

In the Lebanon the situation is quite different

- Industries are reducing their scale of production and many factories are closing down.
- Their capacity of production is far above the local demand.
- Foreign goods locally produceable are overflowing the local market.

TABLE XIII.

Local Demand, Capacity of Production, Exports and Imports of locally produceable goods.
(in £1,000 L.) 1951.

Industries.	Local demand in £1000 L. ¹	Capacity of Prod: in £1000 L. ¹	Exports ²	Imports ³
Foodstuff	61,680	265,140	2,094	14,204
Textile	38,200	118,000	20,534	70,094
Tanning & Shoes ²	11,375	76,875	3,412	6,056
Bldg Materials	33,800	63,750	2,268	15,383
TOTAL	145,055	523,765	28,308	45,737

1. See Table VIII.
2. Bulletin Statistique Vol.III No.4. p.50-58.
3. Excluding raw materials.

From Table XIII we see:

a. That the capacity of production far exceeds the local demand and yet the volume of exports is almost negligible.

b. That the imports of locally produced manufactured goods are very important.

In studying Lebanon's balance of trade we shall see ¹ that the Lebanese policy should not be one of restricting imports and protection by tariffs. It should drive at an expansion of exports from a competitive Lebanese industry.

But Lebanese exports are faced with a severe quotas system in many Western countries and even if their costs of production were low enough Lebanese manufactured goods could not be exported if the restriction of trade by quotas measures were to remain.

Under these circumstances the ineptitude of the Lebanese Government's policy appears very clearly.

a. Since the Lebanon is accepting all imports without any restriction from foreign countries these countries should in return accept a certain amount of Lebanese exports. This is the basis on which bilateral agreements are agreed upon.

1. See Chapter VII. for details.

b. If the present conditions of trade restrictions (licences and quotas) are to remain the Lebanon cannot stand as the champion of liberalism and the government should take similar measures for restricting the volume of imports from countries unwilling to accept Lebanese exports.

The problem is then to know whether the Lebanon is in a position to secure advantageous bilateral trade agreements which would help in increasing the present volume of exports. The answer could be found in studying the balance of trade of the Lebanon with some foreign countries.

TABLE XIV.

The Balance of Trade of the Lebanon with some other countries
1952. ¹

Countries	Imports in £1000 L.	Exports in £1000 L.
United States	54,827	6,907
Great Britain	38,333	4,279
France	33,837	3,666
Holland	15,226	117
Italy	12,497	3,361
Germany	10,154	433
Switzerland	9,354	89
Belgium	7,599	567
TOTAL	181,827	19,419

1. Bulletin statistique Vol. III No.4 p.59.

From Table XIV we see that the balance of Trade of the Lebanon with other countries shows many gaps allowing a larger volume of Lebanese exports. The field thus opened for bilateral agreements is wide open. The Lebanese government could take advantage of the harsh competition now prevailing among industrialized countries, especially with Germany now efficiently coming in, in order to improve the balance of Trade of the country. While Lebanese industries are considerably reducing their scale of production the securing of export markets would mean prosperity to the country. The negligent attitude of the government and its incompetence are incomprehensible.

Governmental officials might argue that the Lebanon has secured trade agreements with most of the countries in the world. We only have to examine the agreement signed recently with Germany to see how careless the government is in enforcing or at least taking advantage of these agreements.

According to the Trade Agreement ¹ Germany should import from the Lebanon -

a. Foodstuff goods :	2,100,000	₯	=
b. Manufactured goods;	1,180,000	₯	=
c. Miscellaneous :	<u>220,000</u>	₯	=
Total imports :	3,500,000	₯	

1. Agreement signed on the 16th November 1951.

Yet the actual imports of Germany from the Lebanon were far from reaching these figures. The export to Germany in 1952 amounted to only £433,000 L. (120,000\$) and imports from Germany were £10,154,000 L. ¹

These are the kinds of agreement that the Lebanese government has so far been able to reach with foreign countries. As long as the Lebanon was under a French mandate it was deprived from the right of concluding such agreements. There is no reason for such a situation to continue now that the country is sovereign and independent.

For the task of promoting trade relations between Lebanon and foreign countries it is vital that an intelligent study should be made with a view to opening foreign markets to Lebanese goods, inform Lebanese industrialists and producers both of conditions and trade possibilities with other countries and above all help to secure bilateral trade agreements as a basis of such export trade. This task is that of the "Commercial Attaches" and it is unfortunate that in most Lebanese Embassies or Legations abroad such an office does not exist.

The Middle Eastern Market: The first Market to secure for Lebanese manufactured goods is obviously that of the Middle East and yet even with the countries in this area the Lebanese balance of trade is not as favourable as might be expected.

1. See Table XIV.

TABLE XV.

The Balance of Trade of the Lebanon with M.E. Countries, 1952.¹

Countries	Imports	Exports
Syria	63,842	16,583
Irak	17,741	2,732
Seudi Arabia	4,270	10,557
Turkey	4,038	596
Jordan	2,890	9,982
Egypt	2,310	7,082
Iran	1,946	80
Cyprus	885	1,077
TOTAL	97,822	48,689

We can see from Table XV that the balance of trade is far from being in Lebanon's favour. At present all Middle Eastern countries are overflowing with foreign goods and the Lebanon has not proved successful in securing these markets. The Arab league grouping Egypt, Irak, Syria, Seudi-Arabia, Jordan Yemen and Lebanon has not been able so far to promote trade between its member nations.

There is a strong aversion, shared by the author, against the "Arab League" into which some Lebanese feel

1. Bulletin Statistique Vol.III. No.4. p.59.

that they have been dragged by the British policy after the war. Although we do not believe in the so called "Arab Nationalism" ¹ as far as the Lebanon is concerned, yet there are no reasons why Middle Eastern countries should not co-operate together in economic matters and even form an Economic Union. Economic Union does not mean alienation of national sovereignty. The "interest of the Lebanon lies in the economic union between Middle Eastern countries. In such a Union where no tariff barriers would exist between member countries Lebanese manufactured goods would find an excellent market for the surplus of the industrial production of the country.

Since September 1952 ² the President of the Lebanese Republic H.E. Camille Chamoun has been visiting all Middle Eastern countries trying to promote economic and political relations between the members of the "Arab League". We can only hope that his efforts will bear fruit.

So far we have blamed the Government for the crisis which Lebanese industries are now facing. But Lebanese industrialists must also take their share. They are complaining of lack of markets and yet the easiest one to secure, the local market, is overflowing with foreign

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1. See Introduction.
 2. When he was elected President.

manufactured goods allowed to be imported without restrictions. We even see cheaper and sometimes better Lebanese products unable to be sold on the local market.

There is a strong prejudice in the Lebanon against locally manufactured goods brought by the belief that "they cannot be better" than the "European" or "American" goods. This prejudice is enforced by a clever publicity, made by foreign producers, which appeals to the man in the street. As an illustration the example of soft drinks may be mentioned. The quality of the Lebanese non-alcoholic drinks is of a good standard and many a consumer would prefer it to any other foreign brand.¹ For many years however, the presentation of these drinks was quite unsatisfactory, (ordinary bottles, unattractive labels etc.,). Four years ago in 1949 the "Coca-Cola" company of the United States secured from the Government a licence to produce the drink in the Lebanon and all the resources of American publicity were used to launch the drink in the market. In few weeks time most of the consumers were "convinced" to drink Coca-cola and the profits made by the firm exceeded all expectations. Only by then did Lebanese producers try to fight their way back and improve their presentation of their product.

1. When appreciation of quality is concerned the statement cannot be proved by material facts or data.

What is true of soft drinks is true of many other Lebanese manufactured goods. Textiles of good quality have to be branded as Italian in order to be sold and this does prove that the prejudice is not based on a poor quality of the product since once they are thought to be foreign they are easily bought.

Before asking the Government for help Lebanese industrialists should try to compete with foreign products on their own market.

S. 3. FOREIGN COMPETITION.

The real problem facing any industry is one of cost of production and subsequently selling price. When a product of a given quality is produced at a cost defying competition markets would easily be found in spite of many protective measures. Before the war Japanese products were able to reach the most protected markets because of their considerable cheapness.

-If Lebanese products are not able to compete with foreign ones, or, if large stocks remain unsold:

Is it not because their prices are not so low as to induce markets and consumers to buy them?

In this section we were aiming at bringing a direct comparison between the actual costs of production of Lebanese manufactured goods and those of foreign goods. Thus we could have really established whether the cause of

the crisis of Lebanese industries is one of cost and price. Unfortunately the reluctance of industrialists to give away their costs of production made this task impossible and we have failed to secure the required data. In consequence the study would not be as analytical as it was intended and we will have to draw conclusions on general principles rather than arithmetic certitudes.

A. Disadvantages of Lebanese Industries:

When questioned on their costs of production Lebanese industrialists claimed that their conditions of operation were very disadvantageous as compared with those of their foreign competitors.

In their complaints to the Government they advance the following disadvantages.¹

1. Supply of Raw Material: International markets for raw materials which existed before the war are now difficult to reach either because of the shortage of their supplies or because of their engrossment by the big countries.

Lebanese industrialists are asking the Government to take similar steps to those adopted by the Government of Great Britain and France. In these countries the Governments purchase on their own account some basic raw materials, thus benefiting from bulk transactions, and often sell them

1. All information in this section is gathered from the "Report to the General Assembly" made by the Committee of Lebanese industrialists on the 20.6.1950.

back to industrialists at a lower price.

- The French buys cocoa and timber from its colonies and sells them back at a price 35% lower.

- The English Government subsidises sugar and has created the Raw Cotton Commission to buy the cotton needed by the country and sell it back without profit, if not at a loss. The last report published by the R.C.C. in June 24th 1953 shows a loss of £28,585,580 in one year.

- Whereas Lebanese industrialists have to buy individually the raw materials needed at almost a retail price since the quantities they demand are comparatively very small.

2. Cost of Fuel and Electric Energy: In the Lebanon, the outlet to the sea of Middle Eastern petroleum, the price of fuel is higher than in any country in the Middle East and many others in the world.

- Thus fuel oil is sold:

In Port Said.	£30 L. a ton.	
In Irak.	£29 L. " "	
In Great Britain.		1/2 per Gal.
In the Lebanon.	£60 L. ¹ " "	1/2 per Gal.

- And Gas Oil (paraffin)

In Irak.	£58 L. a ton.	
In Great Britain		1/4 per Gal.
In the Lebanon.	£95 L. ¹ " "	2/- per Gal.

1. Excluding Taxes (45%).

These high prices of fuel are incomprehensible since there is in the Lebanon a large refinery supplying all the local consumption.

- Why does this refinery (Irak Pet.Co.,) sell the fuel oil at £37.L. a ton to the distributing companies (Socony, Shell, Sloc etc.,) in the Lebanon and at £27.L. in Irak.

- Why on the other hand do the distributing companies in the Lebanon sell back the fuel oil at £53 L. a ton.

Because the Government imposed heavy taxes (45%) on different oils and relies upon them as an important source of income. Furthermore the Government could ask the distributing companies and the I.P.C. to lower their selling prices as they do in Irak.

As to the price of electric energy it is certainly the highest in the world.

The K.W.h. is sold -

In New York:	1.60-2.40 L. Piastres ($\frac{1}{2}$ to $\frac{3}{4}$ of a cent)
In the Tennessee Valley:	0.80 L. Piastres ($\frac{1}{4}$ of a cent)
In Great Britain : (average)	2.50 " " ($\frac{1}{2}$ penny)
In the Lebanon :	10 " "

If we consider the importance of fuel and electric energy in the total cost of production of certain industries, cement, chemicals, etc., we realise the disadvantageous

position of Lebanese industrialists.

3. Industrial Credits: The necessity and importance of credits in industry do not need any emphasis. The country which can provide adequate credits to its industries make sure that every opportunity of improvement and progress would be taken advantage of.

In the "Western" world the system of credit has reached a certain degree of perfection by which an industrialist with good prospects could easily find credit facilities at a normal rate of interest.

In the Lebanon the possibilities for credits are very limited and the official rate of interest is abnormally high and compares with other countries as follows:

Great Britain	4½%
United States	3%
France	4%
Lebanon	8%

The foreign producer who could find credits at 5% cheaper than his Lebanese competitor is certainly at an advantage.

4. Port Warehouse Charges: The Port of Beirut, one of the most important in the Middle East, is a private concession given by the French Mandatory power to a group of capitalists, mostly French. In consequence the policy followed is one of profit making without consideration to

the real interest of the country. Industrialists and importers are abusively charged for the storage of their goods in the Port's Warehouses.

TABLE XVI.

Comparison of Warehouse charges between Lebanon and Israel.

Number of Days.	Beirut in L.Piastres per ton.	Tripoli in L.P. per ton.	Haiffa in L.P. per ton.
1st to 7th	Exemption	Exemption	Exemption
8th to 14th	180	10	Exemption
15th to 18th	200	20	Exemption
19th	200	20	80
20th	200	20	160

When the period exceeds one month the following charges are levied:

31st to 60th day		20 L.P. per day and per ton.
61 - 90	"	40 L.P. " " " " "
91 - 121	"	60 L.P. " " " " "
121 and over	"	80 L.P. " " " " "

If we suppose, as an extreme case, a Lebanese Industrialist importing some 1,000 tons of Potassium chloride costing him £100,000 L. and keeping them for two months in the Port warehouses he would have to pay :

1st week	Exemption
2nd week	£1,800 L.
3rd week	£2,000 L.
4th week	£2,000 L.
2nd month	<u>£6,000</u> L.
Total:	£11,800

That is 11.8% of the total cost of the imported material.

It is time that the Lebanese Government took steps to stop the "Societe du Port de Beyrouth" making abnormal profits and fix their charges.

5. Foreign Currencies: In the Lebanon the difference between the official rate of exchange and the market rate is very important as shown in Table XVII.

TABLE XVII.

The Official and the Free Market Rates of Exchange (17th June 1953) in Lebanese Piastres = 1/100 L.£¹

Foreign Currencies.	Official Rate	Free Market Rate.
Dollar	221	334
Sterling £	619	905
French franc (1000)	626	908
Swiss franc	52	77.50
Italian lira (1000)	-	550
Belgium franc	4.43	6.55
Egyptian pound	635	830
Iraki Dinar	619	905

1. Bulletin Statistique Vol.III. No.1 p.27 and Orient 17th June 1953.

Until 1948 Lebanese importers could obtain foreign currencies from the foreign exchange at the official rate. The distribution of foreign currencies however led to so many abuses that the Government had to stop all their deliveries at the official rate and industrialists had to import goods at a higher price with foreign currencies bought on the free market. As a consequence the cost of raw material and equipment rose by 30% and their costs of production were subsequently higher. In the meantime their European competitors could buy their raw materials cheaper.

With all these disadvantages Lebanese industrialists are certainly operating at higher costs of production than their European and American competitors. The proportion of their higher costs in many factors is very important.

Fuel Oil	100%	
Electric Energy	400%	
Raw Materials	30%	(Both by lack of subsidy and foreign currencies)
Rate of interest	5%	

B. Advantages of Lebanese Industries.

On the other hand, however, Lebanese industrialists have many advantages, denied to Western competitors, which they should exploit.

1. Cost of Labour: Labour is an important factor in the cost of production and is in the Lebanon 1/4th the

cost of that of Western Europe.

A semi skilled worker would receive a minimum wage -

- In Great Britain: £6 for 40 hours work a week.

- In the Lebanon : £2 for 50 hours work a week.

The cost of one man hour would be -

- In Great Britain: £6 : 40 = 3 shillings.

- In the Lebanon : £2 : 50 = 0.9d.

This considerable discrepancy could be explained by the fact that for many Lebanese workers wages are not the only source of income. Most of them have a very small parcel of land on which they used to live before the industrial development started during the war. By his work in factories the Lebanese labourer found a means of increasing his earnings and considered his wages as an additional income. This is why he was prepared to accept lower wages.

Furthermore, the Lebanese worker has lower aspirations and lower needs than the Western worker mainly as far as leisures are concerned. He is more easily satisfied than the Western and is likely to accept lower wages.

Trade Unions on the other hand are almost non-existent and Lebanese workers cannot force their employers to give them higher remuneration.

2. Taxation: The burden of taxation on industrialists and its consequent incidence on costs of production and prices is negligible in the Lebanon as compared with

Western countries.

Making abstraction of the general practice of tax evasion prevailing in the country, the actual rate of the income tax is comparatively low.

An industrialist earning £5000 a year would be taxed (income tax only)

- In Great Britain. ¹

Statutory income		£5000
Earned income allowance	£450	
Personal allowance (married)	£210	
Child allowance (3 chil)	<u>£255</u>	<u>£910</u>
Taxable income.		£4090
- First £400	£112	
- Remaining £3690	<u>£1700</u>	
		£1812 of income tax.

- In the Lebanon: 8% of £5000= £400 of income tax.

Lebanese industrialists are thus taxed four times less than the British ones and this is a big advantage.

3. The Cost of Living: There is at present a misleading aspect on the cost competition between Lebanese and foreign industries which deserves mentioning.

During the war the cost of living in the Lebanon had increased tremendously while in Western countries,

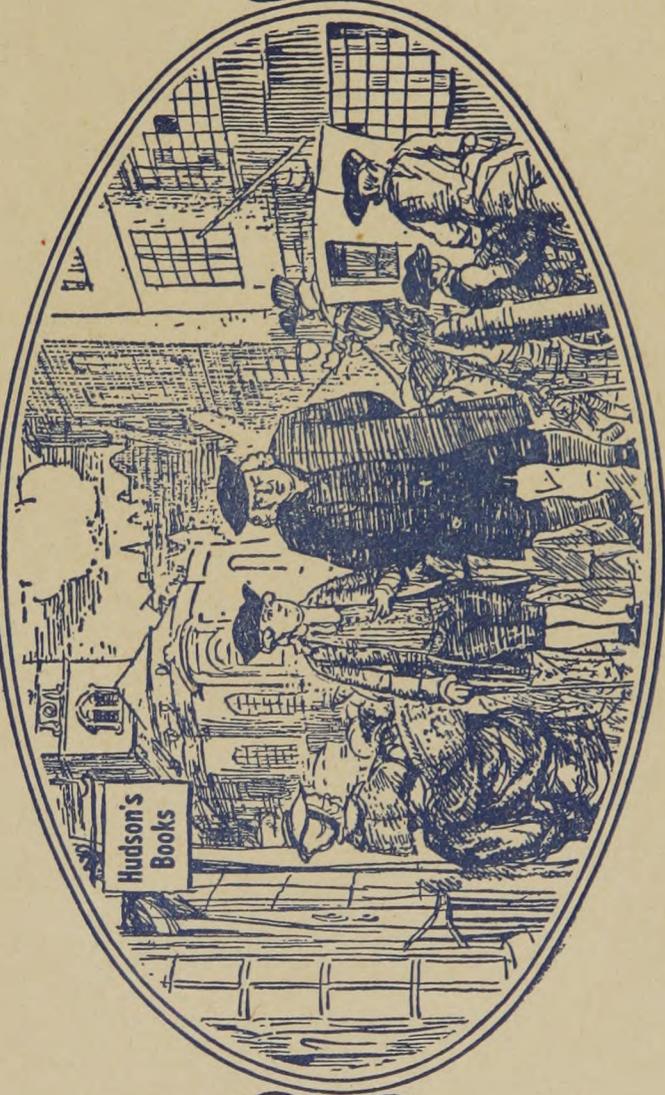
1. C.A. Newport. Income Tax Law and Practise. p.34.

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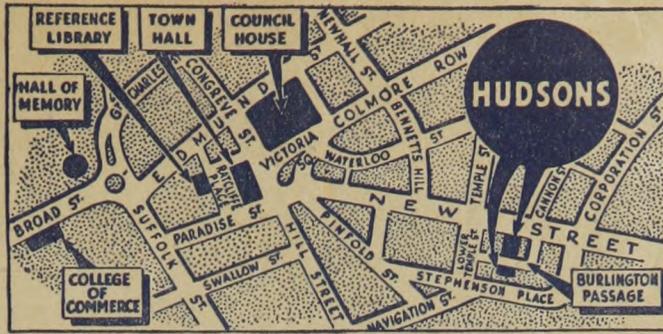
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governmental price controls and rationing had prevented the cost of living to rise as shown in Table XVIII.

TABLE XVIII.

General Price index in the Lebanon and Great Britain.

1939 = 100.

Year	Great Britain ¹	Lebanon ²
1945	150	607
1946	150	553
1947	200	500
1948	216	492
1949	226	461
1950	258	426
1951	315	462
1952	323	449

Under these circumstances Lebanese industries were unable to produce at the same costs as foreign ones and this fact might explain the crisis of Lebanese industries.

Today the situation is completely reversed and while the general index of the cost of living has risen almost everywhere in the world it has seriously dropped in the Lebanon.

1. Monthly digest of Statistics No.92. p.121.
2. Bulletin de statistique Vol.III No.4 p.38.

If we want to investigate the reasons of this phenomenon we can find an explanation in the considerable amount of stocks which were imported after the war. It was estimated that in the few years following the war Lebanese merchants, with considerable idle capital made of war profits, had stocked in the country goods of all kinds which could have satisfied the local demand for at least ten years. In the meantime the price index in Western countries was rising rapidly and the Korean war accelerated the process. In the Lebanon the existence of large stocks checked the inflationary process and we are witnessing in the country a curious phenomena whereby many manufactured American goods ¹ are cheaper in the Lebanon than in the U.S.A. in spite of custom duties, transports and costs of distribution. The price of these imported manufactured goods in the Lebanon did not prevail any more in the producing countries. As a result Lebanese industries have to face the cost competition on the line of these prices of imported stocks and not the competition of the present costs of production of Western industries.

We might then have the ironical situation of Lebanese manufactured goods unable to be sold on the local market since stocked foreign goods are still cheaper while on foreign markets they might be considered as quite cheap.

1. Since in America there are almost no purchase taxes on local demand.

In studying the problems of Lebanese industries we can see that there are no reasons to prevent Lebanese industrialists from producing cheaper than their foreign competitors.

1. If the Government adopts a policy encouraging industries, the costs of production could be reduced tangibly.

a. If raw materials could be bought by industrialists at the official rate of exchange of foreign currencies they could reduce the cost of this factor of production by 30%.¹

b. If custom duties were removed from needed raw materials and machinery (an average of 25%).

c. If fuel and electric energy could be supplied cheaper.

2. On the other hand, Lebanese industrialists have serious advantages on their Western competitors in -

a. Their low cost of labour

b. Their low income taxes.

3. The equipment of their factories have been completely renewed since the war with the most recent machinery. This opportunity has been denied to many European industrialists who often could not afford to modernize their plants. Lebanese industrialists claim that

1. Instead of buying the £ for £9.45 L. they would buy it for £6.25 L.

some of their industries rank, in equipment and building among the best in the world.

The most important problem of Lebanese industries appear to be that of their costs of production. If these costs are lower than Western industries markets could easily be found since the balance of trade of the Lebanon with foreign countries is deficitary and the country could demand that more goods be imported by them. But the government could not force foreign countries to import dearer Lebanese goods.

If the problem of costs of production could be solved by the government as we have advised in this chapter Lebanese industries could prosper considerably.

CHAPTER VI.

PROSPECTS OF LEBANESE INDUSTRIES.

In studying the prospects of Lebanese industries we shall examine respectively -

- The prospects of the existing industries.
- The prospects for new industries.

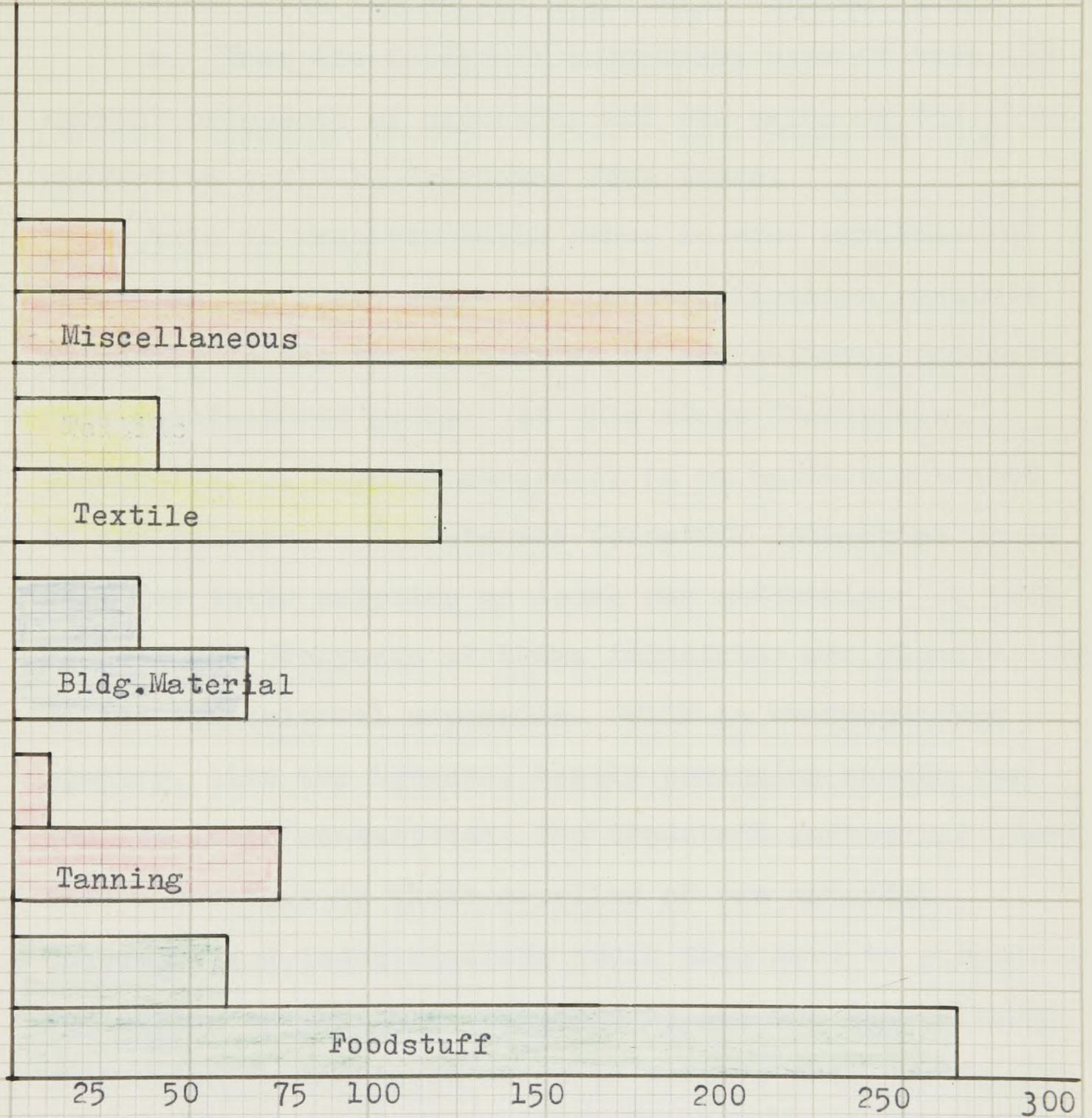
S. 1. PROSPECTS FOR EXISTING INDUSTRIES.

In examining Table VII (p. 79) giving the figures of the actual and potential production (i.e., the production which could be reached by the existing factories working at full capacity by increasing the number of workers employed) of Lebanese industries we are struck by the considerable disproportion between the two figures.

If the existing Lebanese factories could operate at full capacity (including for, certain industries, three shifts) the income from industrial production would rise from £172,480,000 L. to £726,065,000 L.

1. Foodstuff Industries	from	£61,680,000L	to	£265,140,000
2. Tanning & Shoes Ind.	"	£11,375,000L	"	76,875,000
3. Building Materials Ind.	"	£33,825,000L	"	63,750,000
4. Textile Industry	"	£38,200,000L	"	118,700,000
5. Other Industries	"	£27,600,000L	"	201,600,000

Actual Output and Potential Production of Leban.Ind.
 (in millions of L.£.)



of industries.

The vegetable oil industry, mainly olive oil, is a good illustration for the need of a joint expansion of agriculture and foodstuff industries. Lebanese olive oil is reputed to be one of the best in the world. It could become the country's best export item since many countries of hard currency are ready to buy it. Yet the local consumption is very big (4 gallons per capita per year). Olive oil is used for cooking, it replaces butter, fat, margarine etc..

Consequently the quantity of olive oil left for export is negligible and there is a need of increasing the production of olive oil if the industry is to prosper and the country benefit from its exports.

The main feature of the olive oil production is the irregularity of its volume every year. At present olive trees bear enough fruit only one year in two for no obvious reasons. The Lebanon could export 10,000 tons of olive oil every year if more land could be turned into olive growth.

b. That the building material industry seems to be actually the most efficient since it could only double its actual production.

There is however a misleading factor concerning its further expansion. "Potential" production of an industry

does not mean in our sense maximum production. It means the maximum production which could be reached by the existing plants by increasing their factors of production. The comparative efficiency of this industry and the wide spread and abundance of its raw materials should encourage the establishment of many more factories. The urbanization of Middle Eastern countries brought about by the exploitation of their petroleum resources is a larger market for the Lebanese building material industries.

At present there is only one cement factory, a Swiss firm, the "Societe des Ciments Libanais" which is trying by all means to keep the monopoly it has established. It has been so far able to benefit from the protection of the Government.¹ Its monopolistic situation is very harmful to the country since the price of cement in the Lebanon is abnormally high, competitive conditions might probably lower the prices, increase the volume of production and exports.

c. The textile industry is the most severely hit by the present crisis. Since the war a considerable amount of capital was invested for renewing the machinery. Some of the yarn factories range among the most modern in their equipment and are the best in the world.¹ The prospects of the textile industry depend on export markets. The

1. The lawyer in charge of their interests became in 1943 President of the Republic.
2. Lebanon's Industries. p.58.

Middle East and Africa should be secured. At home there is a need of breaking down the common prejudice against locally made textiles.

d. The tanning and shoes industry in the Lebanon could prosper only if it were to supply the local market. The actual annual consumption is - ¹

Rubber soles	400,000 pairs.
Rubber shoes	120,000 pairs
Leather shoes	2,500,000 pairs

The factory production of leather shoes for instance is at present 115,000 pairs a year only. The remaining supply is made in hand workshops which are able to compete with manufactured shoes because of -

- The low cost of labour.
- The low distribution costs.

e. The miscellaneous group of industries: seem to have the best prospects for expansion. The difficulty is that we have grouped under this denomination different industries with no connection together. In fact these industries are of a more advanced nature, petroleum refineries, radio sets etc...

From Table VII we see that the most important industry, that of electric energy, might increase its production from 68,000,000 K.w.h. to 5,000,000,000 K.w.h.

1. Id... p.80.

In fact this industry constitutes the most important factor in the industrial development of the Lebanon and deserves a special study,

S. 2. PROSPECTS FOR NEW INDUSTRIES.

A. Electric Energy.

If all the hydraulical possibilities of the Lebanon were fully exploited, the prospects opened in this field would satisfy all people concerned with the industrial development of the country.

The large possibilities and prospects of the hydro-electrical industry have not been fully realised until recently when accurate and scientific studies were published.

This study would lack in originality since the author is not qualified in the matter. It will be based on results brought by technicians who spent many years on research. ¹

As students of Lebanese economy we can pass judgment on the technician's work by reference to its profitability and its repercussions on the economic development of the country.

In studying the natural resources of the Lebanon

1. Information for this section has been gathered from M. Gemayel and A. Nacache: "Planification integrale des Eaux Libanaises".

we came to the conclusion that the most important one was the water supply. From the degree of exploitation of this resource might depend the prosperity of the country.

- In its agriculture with irrigation schemes.
- In its industry by the establishment of an important hydro-electrical industry.

We have already studied the irrigation possibilities, we shall now turn to the prospects for industry.

There are two main policies concerning the exploitation of the Lebanese water resources.

The first consisting in taking each river, or water supply, separately and taking all advantages of its possibilities for both irrigation and hydro-electrical energy.

The second policy, much more original and ambitious, aims at an integral planning of all the water supply of the country in order to establish a system of compensation between these supplies so as to dispose of the maximum amount of water for both irrigation and hydro-electric energy. A remarkable scheme by Mr. Alfred Naccache and Maurice Gemayel has been published in 1951, by which the water supply of the Lebanon, abundant in winter and scarce in summer, would be evenly distributed all over the year.

The plan of A.Naccache is to capture in large dams a sufficient reserve of water which could be used in summer.

Such a scheme can only be achieved through the planning of all the Lebanese water resources.

The major lines of Naccache's plan centres around the four most important natural reservoirs of the Lebanon which would capture all the other available minor water supplies.

- a. The North-Eastern reservoir of the Orontes.
- b. The Northern reservoir of the Nahr el Bared and Abou Ali.
- c. The central reservoir of Nahr Ibrahim.
- d. The Southern reservoir of the Hasbani-Jordan and Litani.

In Naccache's scheme the total water supply of the Lebanon could be used for the production:

- Of a minimum quantity of 200,000 H.P. available all the year.
- And a total production of 3,720,000,000 K.w.h.

But in order to increase this output and still have enough water supply to irrigate 150,000 hectares of land he thought of a system of combining hydraulic and thermic electric energy which would give a total production of 5,320,000,000 K.w.h. With such a production of electric energy the Lebanon would dispose of 4,000 K.w.h. per capita which is twice the consumption of Great Britain or the United States.¹

1. See Chapter II, Table III.

a. The Southern Reservoir: Naccache thought of a contribution of the four most important rivers of Southern Lebanon.

- The Litani.
- The Hasbani-Jordan.
- The Barouk-Awali.
- The Damour-Safa.

In winter all the water supply would be captured in eight large dams and kept for summer.

- Wadi Sohmor: altitude of 785 metres on the Litani.
- Wadi Slouqui: " " 410 " " " "
- Wadi Quaissiyeh: " " 410 " " " "
- Wadi Zerheriyeh: " " 190 " " " "
- Superior Awali: " " 450 " " " Awali.
- Inferior Awali: " " 160 " " " "
- Lake of Rashaya: " " 1150 " " " Lake of Rashaya.
- Jebel el Dahr: " " 950 " " " Near the Lake of Rashaya.

This combination would permit -

1. The production of a minimum electric energy of 101.000 H.P.

2. The accumulation of 60 m³/s for irrigation purposes during the 6 months of rather dry weather.

The hydro-electric plants which might be built are:

- 2 plants receiving the water from Lake Rashaya and Jebel Daher with a production of	16,000 H.P.
- 1 plant at Barouk from Litani's water	38,000 H.P.
- 1 plant at Barouk from Barouk's water	7,700 H.P.
- 2 plants using the water captured in Slouqui and Quasiyeh.	35,500 H.P.
- 1 plant using the water of Superior Awali	6,800 H.P.
- 1 plant using the water of Zerheriyeh dam	2,000 H.P.
	<hr/>
Total production.	101,000 H.P.

The most important fact in the exploitation of the Southern reservoir is that:

- During winter water would be captured in dams and the hydro-electric plants located at the foot of the dams would have to remain idle and rely on the electric energy brought from central Lebanon since the water would be needed in summer.

- In summer before the water is used for irrigation all its electric energy would be taken.

b. The Reservoir of Central Lebanon: this reservoir centres around the Nahr Ibrahim (Adonis).

The mythology teaches us that near the sources of Nahr Ibrahim a wild boar disembowelled Adonis, God of Beauty. Venus was so much upset by the death of her lover, and wept so much that her tears formed the Nahr Ibrahim. This explains the

torrent like flow of the river and the large possibilities it opens for hydro-electrical energy.

Naccache thought of using the Nahr Ibrahim as a centre of supply of electric energy all over the year and especially replace in winter the production of the Litani whose water would be captured during this part of the year. This is in fact the great advantage of Naccache's planification: the system of compensation of water supplies:

Two large hydro-electric plants could be built on the Nahr Ibrahim.

1. The Hossen plant with a power of	11,000 H.P.
2. The Bir el Heil plant with	<u>39,000 H.P.</u>
Total:	50,000 H.P.

c. The Reservoir of North Lebanon: The water supply of North Lebanon centres around two major rivers.

- The Nahr el Bared.
- The Nahr abou Ali.

A combination of these two rivers would provide a minimum electric energy, available all around the year, of 50,000 H.P.

1. Nahr el Bared: Like the Litani, the water flow of the Nahr el Bared should be captured in winter in order to provide enough water for irrigation in summer. The Nahr el Bared takes its source from a small lake which could be transformed into a large dam: The Sahl Aali.

On its route the river collects the water of five smaller rivers or streams:

- Nahr Sir el Danniyel.
- Wadi Njoule.
- Wadi Sirri.
- Wadi Johannam.
- Wadi Sgig.

Naccache thought that if at the junction point of each of these rivers with the Nahr el Bared a small dam could be built this scheme would have the big advantage -

1. Of capturing the winter overflow for summer.
2. Using several times the same water for hydro-electric energy.

Many hydro-electrical stations could be built on the Nahr el Bared to produce a minimum energy of 50,000 H.P. The three most important plants being.¹

- The Kattin plant with a total power of 75,000,000 K.w.h.
- The Medium Bared plant 205,000,000 K.w.h.
- The Lower Bared with a power of 65,000,000 K.w.h.

Most of these plants would generate electric energy only in summer when the water captured in small dams would be released for irrigation.

2. Nahr Abou Ali: would be used to produce electric energy in winter and supply Northern Lebanon at that time of the year.

1. Jean Chidiac "Water and Electricity in the Lebanon". p.74.

The water supply of this river would be captured just before it reaches the sea, near the town of Tripoli and provide more water for irrigation. But the main purpose of the Abou Ali would remain in the generation of electric energy all around the year.

Six hydro-electric stations could be built on the Nahr Abou Ali. ¹

- The Becharre plant with a power of 8,000,000 K.w.h.
- The Marlisha plant " " " " 18,000,000 "
- The Blaouza plant " " " " 22,000,000 "
- The Fradisse plant " " " " 27,000,000 "
- The Rashine plant " " " " 15,000,000 "
- The Kusba plant " " " " 20,000,000 "

d. The Reservoir of the Orontes (North East):

Naccache thought it preferable to use the water supply of the Orontes only for irrigation purposes, since the prospects for hydro-electric energy are not very favourable in that part of the river flowing in Lebanese territory.

Thus Naccache's scheme would give a minimum production of electric energy available all around the year of:

$$200,000 \text{ H.P.} \times 24 \times 365 = 1,752,000,000 \text{ K.w.h.}$$

To this minimum production would be added some 1,970,000,000 K.w.h. produced when the water captured for irrigation would be released in summer.

1. J. Chidiac. op.cit. p.95.

In order to increase this hydro-electric energy Naccache thought of completing his scheme by the establishment of a thermo electric industry producing an additional energy of 1,600,000,000 thus bringing the total production to:

	<u>K.w.h.</u>
1. Permanent production of hydro-electrical energy.	1,750,000,000
2. Additional hydro-electrical energy.	1,970,000,000
3. Thermo-electrical energy.	1,600,000,000
	<hr/>
Total production:	5,320,000,000

If all this production could be sold at a price three times lower than the present one, (i.e., 3 L. Piastres instead of 10 L.P. per K.w.h.) the achievement of such a scheme would yield a yearly income of -

$$5,320,000,000 \text{ K.w.h.} \times 3 \text{ L.P.} = \text{£}159,600,000 \text{ L.}$$

The estimated costs required for the exploitation of the Lebanese water resource, including irrigation and hydro-electric plants, are of £900,000,000 L.

Excluding the income which might derive from irrigation (in the form of public assessment and taxation) which has been estimated in a previous chapter at £26,000,000 L. a year, the returns from hydro-thermo electric industries would represent 20% of the capital invested.

The problem however, is whether the country could consume such a considerable supply of electric energy

amounting to a consumption of 4,000 K.w.h. per capita (twice as much as that of Great Britain).

Naccache considers that with its water supply the Lebanon holds the key of the Near Eastern economy. The electric energy produced in the Lebanon could be transported and sold to neighbouring countries whose physical nature does not favour the establishment of hydro-electric industries.

In this case the establishment in the Lebanon of a hydro-electrical industry is certainly very appealing and would greatly enhance the economic prosperity of the Lebanon.

B. Chemicals and Fertilizers:

In order to absorb the considerable amount of electric energy which could be produced by an adequate exploitation of the water resources of the Lebanon, electro-chemical industries could be built in the country.

There are many reasons encouraging the creating of such an industry in the Lebanon.

1. Lebanese agriculture remains an important sector of the Lebanese economy and its expansion would require a considerable amount of fertilizers, some of which could be produced locally.

Middle Eastern countries are fundamentally agricultural and they are gradually improving their methods of cultivation and more and more using fertilizers.

These countries could become excellent export markets for Lebanese chemicals and fertilizers.

3. Such an industry could more easily compete with foreign products since their transportation costs are comparatively very important in relation to their value.

4. The interesting aspect of chemical industries lies in the multitude of sub-products which are collected in the process of making a given product. These sub-products could at their turn encourage the creation of new industries which could use them.

There are many other reasons which would encourage the creation of an electro-chemical and fertilizer industry in the Lebanon. As an example/^{of}chemicals which could be produced in the Lebanon we have selected Amonia which uses are many, such as: ¹

Nitric Acid.

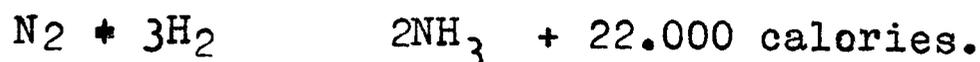
Sodium nitrate (explosive)

Ammonium sulphate (fertilizer)

Ammonium nitrate (explosive and the most concentrated fertilizer)

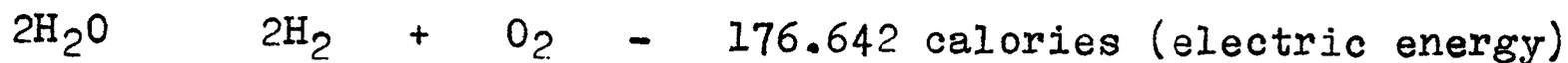
Urea (important basic material for the manufacture of plastic) etc.....

The production of ammonia (NH₃) derives from the combination of Nitrogene (N) and hydrogene (H)



1. Kobe K.A. "Inorganic Process Industries".

a. Hydrogen: could be secured from water by electrolysis (requiring electric energy).



b. Nitrogen: is secured from air by fractionating the liquid air and remove nitrogen from other gases.

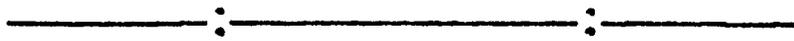
There are many other products which could be made in the Lebanon (salts, acids, calcium cyanide requiring lime which is of good quality in the Lebanon, etc...)

The most encouraging fact is that many chemical products and fertilizers do not require any raw material from which the Lebanon is devoid.

The creation of chemical and fertilizer industries is an excellent auxiliary to the electric industries.

CHAPTER VII.

THE EFFECTS OF THE INDUSTRIAL DEVELOPMENT
IN THE LEBANON.



We have selected two important fields in which we can realize the effects of the industrial development in the Lebanon

- The Standard of living.
- The balance of trade.

S. 1. THE STANDARD OF LIVING.

Before studying the effects of the industrial development on the standard of living in the Lebanon we shall try to determine how it stands under present conditions.

The aim of a welfare state is above all to raise the standard of living of its population. The measurement should be carefully established in order to determine subsequent policies. The task is by no means an easy one and the best approaches to the problem are through the per capita income and the family budget.

a. The per capita income: is the quotient of the national income over the number of inhabitants. It has in fact no real value as far as the standard of living is

concerned since it does not reckon with the unequal distribution of the national income, which could vary with each country. Two countries with the same national income and population might have very different standards of living although the per capita income is the same.

The only value of the per capita income is that it enables a comparison to be established between different countries, although this comparison would only show the productive forces of the country related to each inhabitant rather than the real standard of living.

The best approach in studying the standard of living should try to divide the population of a country into different groups and affect to each of these groups the portion of the national income which it is actually earning. Thus we would have largely reduced the scale of inequality in the distribution of the income.

Furthermore, for each country there should be established what could be called "the decent standard of living" in which social and physical consideration would be taken. This standard would serve as a basis of comparison according to which each country would try to determine what is the proportion of its population living above and under this standard. The socialologists tried to solve this problem with -

b. Family Budgets: The necessity of establishing a

family budget derived from this need of sociologists and politicians to find out the standard of living of the working class. In fact there is nothing more convincing than this budget where the actual income balances the necessary expenditures required for the physical maintenance of human beings with a convenient provision for leisures clothings, habitation etc...

In studying the standard of living in the Lebanon we have been faced with the usual lack of statistical data. This is why I had to carry out personal enquiries to gather the information required in this study.¹

Thus I have been able to establish the family budgets of the rural population in the Lebanon. The task of dividing this population into different groups is rather difficult since we have to distinguish between -

- Areas of large property holdings.
- Areas of small property holdings.

A. Family Budgets in the areas of large property holdings.

This study applies to the following districts:

- North Lebanon: Danniyeh and Akkar.
- Bekaa : Hermel and Baalbeck.
- South Lebanon: Jebel Amel and Nabatiyeh.

In this area we have divided the population into four different groups.

1. The information about the standard of living in the Lebanon is gathered from a personal sampling of some 100 rural families. See Appendix p.203.

1. The big landowner: with a property extending over more than 30 hectares of good lands yielding an income varying from £35,000 L. to £200,000 L. The establishment of a family budget for this group of landowners serves no practical purpose since their standard of living is definitely high.

2. The Medium landowner: ¹ Has a property of 7 to 10 hectares of good lands. His budget could be established as follows:

Income:

- 2 hectares of olive trees	£6,000 L.
- 4 hectares of cereals	£ 800 L.
- $\frac{1}{2}$ hectare of vegetables	£2,000 L.
- 2 hectares of vineyards or fruit trees	<u>£4,800 L.</u>
	£13,600 L.

Expenditure:

- Cost of land tenure	£3,150 L.
- Food for a family of 7 people	£3,600 L.
- Clothing	£1,380 L.
- School and Tuition fees	£2,600 L.
- Rent for a residence in town	£1,000 L.
- Leisure activity	£1,200 L.
- Miscellaneous	<u>500 L.</u>
	£13,430 L.

1. Landowner would refer to the person owning the land and either working on it himself or letting it to somebody else.

3. The small landowner: We do find him even in the areas of large property holdings yet he rather looks like an intruder who managed to find a place in this contrasting social structure. The Lebanese peasant is a hard worker deeply attracted by land ownership. He always tried to increase his holding by buying small parcels of land from the big landlords. Thus we witness now a definite tendency towards the increase of this group of small landowners. The most striking example is provided by the district of Akkar which used to be almost completely owned by a few landowners some fifty years ago and where small land holdings are now predominant. The family budget of a small landowner with 1 or 2 hectares could be estimated as follows:

Income: ¹

- The remaining of the olive oil (after home consumption)	£700 L.
- The remaining of the potatoes	£600 L.
- The milk from a cow	£300 L.
- A part time job in a factory or fields.	<u>£800 L.</u>
	£2,400

1. The income of a small landowner is not only provided by the products of his land too small for his large family. His land does not require all his time and when he does not have a small shop in his village he works in factories or on other lands in the neighbourhood.

Expenditure:

- Cost of seeds, fertilizers etc.	£200 L.
- Food	£1,400 L.
- Clothing	£300 L.
- School for the children	£200 L.
- Miscellaneous	<u>£300 L.</u>
	£2,400 L.

This class is largely supported by remittances from emigrants and in this case its standard of living is subsequently raised, Nevertheless it remains insufficient when compared with European standards although it could be judged as a good one by Middle Eastern ones.

4. The Tenants:

In the areas of large property holdings the tenant is the "bottom dog" of the rural structure. His miserable life is incompatible with the evolution of the country. Although he is not bound to the service of his landlord he is practically tied to the small parcel of land given to his cares and which merely provides him with the bare necessities.

The family budget of tenants could be estimated as follows:

Income:

- The third of 1 or 2 hectares of land £1,000 L.

Expenditure:

- Food for a family of seven	£800 L.
- Clothing and miscellaneous	<u>£200 L.</u>
	£1000 L.

Although the food has a predominant place in the budget 80%, yet it is definitely insufficient since it is mainly composed of bread, tomatoes, potatoes, olives and onions. Meat, sugar and coffee are luxuries they cannot afford. Furthermore the great majority of tenants cannot rely on remittances from emigrants since most of them are Moslems (as we have seen the areas of large property holdings have a predominant Moslem population) who do not migrate. There is much to be done in order to promote the standard of living of this destitute class forming about 60% of the rural population in this area.

B. Family Budgets in the Areas of Small Property holdings:

This study applies to the following districts:

- North Lebanon: Zgorta. Bahroun.
- Mount Lebanon: Kesrouan. Metn. Aley. Chouf.
- Bekaa: Zahli. Kabb. Elias.
- South Lebanon: Jezzine.

In this area we shall distinguish between three groups.

1. The big landowner: with a property of 10 to 15 hectares of good lands with the following budget:

Income. 1

- 4 hectares of olive trees.	£10,000 L.
- 5 hectares of cereals.	£1,000 L.
- 1 hectare of vegetables.	£3,000 L.
- $\frac{1}{2}$ hectare of fruit trees.	<u>£2,000 L.</u>
	£16,000 L.

Expenditure:

- Cost of land	£5,000
- Food	£3,600
- Clothing	£1,500
- Schools	£3,000
- Leisures	£1,500
- Miscellaneous	<u>£ 900</u>
	£15,500

2. The Medium Landowner: He is the pillar of the rural structure in this area and forms 30% of the population. He owns 2 to 5 hectares of good lands and his family budget could be established as follows:

Income.

- 1 hectare of olive trees	£3,000 L.
- 3 hectares of cereals	£600 L.
- 1 hectare of vegetables or fruit trees.	<u>£3,000 L.</u>
	£6,600

1. In most cases the big landowner has an extra income, provided by either a trade, private clinic or professional occupation, which we have not included in the budget.

Expenditure:

- Cost of land	£1,000
- Food	£2,500
- Clothing	£700
- Schools	£1,200
- Miscellaneous	<u>£600</u>
	£6,000

This class is largely supported by remittances from emigrants since it provided a large flow of emigrants for a century. Some of these landowners have an additional income varying widely as to its amount and here again we did not take it into consideration.

3. The Small landowners: They form more than 65% of the population in this area. Their family budget is very similar to those in the areas of large property holdings and could be estimated as follows:

Income £2,400 L.

Expenditure £2,400 L.

In the light of this study on the standard of living of the rural population in the Lebanon we could draw the line showing the proportion of the population living under and above what is called the "decent standard of living". We have thus established what is known as a "theoretical budget" in which we have included all the necessary expenditures of a family of seven persons as far

as food, clothing, etc... are concerned.

The Decent Standard of Living in the Lebanon.¹

For a family of seven persons £4 L. a day for food.	£1,450 L.
Clothing.	£500 L.
Schools.	£600 L.
Leisure expenditures.	£600 L.
Miscellaneous.	<u>£350 L.</u>
	£3,500 L.

The following table will show how the rural population lives according to this theoretical standard.

TABLE XIX.

The Standard of Living in the Lebanon.

Groups of Landowners	Perc: of the population.	Incomes per year in L.£.
Big Landowners (Cat A) ²	2% ³	35,000
Big Landowners (Cat B)	5%	16,000
Medium Landowners (A)	15%	13,600
Medium Landowners (B)	30%	6,600
Decent Standard		3,500
Small Landowner (A)	23%	2,400
Small Landowner (B)	65%	2,400
Tenants (A)	60%	1,000

1. Rent is not included since all landowners have their own house.
2. Categories A would refer to areas of large property holdings and B for areas of small property holdings.
3. This percentage is that of the group in each of the two areas and not that of the total population.

Thus 75% of the rural population in the Lebanon lives under what we call a "decent standard". But we should take in consideration the fact that a great portion of the small landowners receive large remittances from emigrants. We could not find in the country a single Christian family not having relatives abroad. Yet it is hard to assess the amount of the remittances for each group and the proportion of people within this group actually benefiting from these remittances. It would not be exaggerating to say that 20% of the small landowners receive substantial remittances enabling them to live above the decent standard we have fixed.

We could then say that only 65% of the population in the rural areas has a low standard of living. In fact there is only one group of disinherited people: the tenants, who live rather miserably and forms about 30% of the population.

If we want to compare the standard of living of the Lebanese population with that of European countries we should necessarily take into consideration the cost of living and more exactly the purchasing power of the money in each country.

We have roughly estimated the Lebanese National income at £800,000,000 L.¹ which gives a per capita income of £800,000,000 L: 1,200,000 inhabitants = £665 L.

1. See page .

If we want to convert these £665 L. in terms of pounds sterling on what grounds are we going to make the conversion.

1. At the market rate of exchange? (£9.5 L. = £1)
665: 9.5 = £70.
2. At the official rate of exchange? (£6.25 L. = £1)
665: 6.25 = £100.
3. Or at a rate which would take into account the purchasing power of £10 L. in the Lebanon and £1 in Great Britain respectively?

The third solution is the best one to give the real per capita income as compared with the nominal income given by 1 and 2.

The best way to reach a rate of conversion between the Lebanese £ and the pound sterling would be to compare the costs of living between Great Britain and the Lebanon.

TABLE XX.

A comparison of certain prices as between Great Britain
and the Lebanon.

Items	Gt. Britain in £.s.d.	Lebanon		Comparison in %
		Price in £.L.	Market rate in £.s.d.	
Bread (per lb)	0.05	0.25	0.06)	} 17% less
Meat (" ")	02.10	1.50	3.00)	
Vegetables (per lb)	0.08	0.25	0.06)	
Fruits (per lb)	2.00	0.40	0.09)	
Cigarettes (Pkt of 20)	3.07	0.60	1.02	65% less
Alcoholic drink (1 Bttle beer)	1.00	0.25	0.06	50% less
Suit	10.00.00	60.00	6.00.00)	} 45% less
Pair of Shoes.	3.00.00	10.00	1.00.00)	
Rent of small Flat.	100.00.00	700.00	70.00.00	30% less

Since we cannot simply compare these figures as such without giving a proper weight to each of the items as regard its importance in the expenditures of a working class family budget we have selected the weights given by the Ministry of Labour.¹

1. Food. 399
2. Rent & Rates. 72.

1. Monthly Digest of Statistics p.53.

3. Clothing	98
4. Fuel and Light	66
5. Household durable goods.	62
6. Miscellaneous goods.	44
7. Services.	91
8. Alcoholic drinks.	78
9. Tobacco.	<u>90</u>
	1,000

In giving these weights to the respective selected items the comparison of costs between Great Britain and the Lebanon would be:

TABLE XXI.

Comparison in percentage of certain prices as between
Great Britain and Lebanon.

Items	Gt. Britain in £.s.d.	Lebanon in £.s.d. ¹	Comparison in %	Weights in %	Total Comparison
Food	0.06.00	00.05.00	17% Less	39.9%	7% Less
Tobacco	0.03.07	00.01.02	65% "	9%	7% "
Alc. Drinks	0.01.00	00.00.06	50% "	7.8%	4% "
Clothing	13.00.00	7.00.00	45% "	9.8%	4.5% "
Rent	700.00.00	70.00.00	30% "	7.2%	2.5% "
TOTAL:				75%	25% "

1. Converted at the market rate of exchange.

From Table XXI we can see that the cost of living in the Lebanon is 30% cheaper than in Great Britain and that the rate of conversion of Lebanese pounds into pounds sterling should take this fact into account. The purchasing power of £1 in Great Britain would be then equal not to £9.5 L. (market rate) but to £6.5 L. which is nearer the official rate of exchange.

In these conditions the Lebanese per capita income as compared with that of Great Britain (amounting to £280¹) would be of £665 L: $6.5 = £100$.

What would be the effects of the economic development (agriculture and industry) of the Lebanon on the standard of living?

We have seen in previous chapters that the incomes which could be derived from agriculture (with the achievement of irrigation schemes and the policy of crop selection) and industry (producing at maximum capacity) were respectively as follows.²

- Agriculture	£900,000,000 L.
- Industry	<u>£700,000,000 L.</u>
	£1,600,000,000 L.

To which we should add:

1. U.N.O. Monthly Bulletin of Statistics Aug. 1953.
2. See Chapter IV and Table VII.

- Remittances	100,000,000
- Trade	200,000,000
- Other sources	<u>100,000,000</u>
	400,000,000

The total National income would then be £2,000,000,000 L and the per capita income -

$$£2,000,000,000 \text{ L} : 1,200,000 = £1,650 \text{ L.}$$

This figure of course represents the maximum income which could be reached by the present production forces of the Lebanese economy. Furthermore we should reckon with the time needed (some 25 years) before the schemes required for the prosperity of the country are achieved and start bearing fruit.

In the meantime the Lebanese population would have also increased and the per capita income would consequently be less than the £1,650 L.

The growth rate of the Lebanese population is very high since the country has a high birth rate and a very low deathrate.

According to the Ministry of the National Economy these rates are as follows: ¹

Birth rate	26%
Death rate	9%
Growth rate	15%

1. Bulletin Statistique Vol. III. No. 4 p.3.

The death rate in the Lebanon is one of the lowest in the world and much lower than that of Middle Eastern countries where it is 25%.

In twenty-five years time the Lebanese population would be 1,500,000 if the present flow of emigration (4,000 a year ¹) continues.

The per capita income would then be:

$$2,000,000,000 : 1,500,000 = \text{£}1,300 \text{ L.}$$

or if converted in pounds sterling -

$$\text{£}1,300 \text{ L} : 6.5 = \text{£}200.$$

As compared with the present conditions of Western countries the Lebanese per capita income would be quite satisfactory.

TABLE XXII.

Per Capita income of some Selected Countries. (1952).²

Countries	Per Capita income
U.S.A.	1.812 \$
Gt.Britain	£280
France	240.000 frcs.
Lebanon	£200
Egypt	£41
Turkey	125 \$

1. El Dahdah "Le Role de l'Emigration..." p.98.

2. U.N.O. Monthly Bulletin of Statistics Aug. 1953.

S. 2. THE BALANCE OF TRADE.

The study of the Lebanese balance of trade is very puzzling. It is incomprehensible to see the country avoiding bankruptcy or inflation with such a desquilibrium in its balance of trade as shown in Table XXIII.

TABLE XXIII.

The Lebanese Balance of Trade since 1945. ¹

Year	Imports ² in £1,000,000L	Exports ² in £1,000,000 L.
1945	50 ²	10 ²
1946	122 ²	22 ²
1947	147 ²	21 ²
1948	223 ²	20 ²
1949	237 ²	37 ²
1950	300	90
1951	320	105
1952	347	95
TOTAL	1,746	400

1. Bulletin Statistique Vol.III No.4 and Statistiques des Douanes 1945-1950.
2. An important fact concerning the figures for exports and imports should be mentioned. Until 1950 Syria and the Lebanon were part of the same "Economic Union and figures concerning each country separately are not available. Yet it was estimated that Lebanon -
 - Imported 46% of the total imports of the "Union".
 - Exported 25% of the total exports.
 This estimation proves to have been erroneous since we see the Lebanese exports jump from 37 million L.£. in 1949 to 90 million in 1950 for no obvious reason.

In basing our study only on the past three years, where accurate figures are available we see that the Lebanon is importing every year three times more than what it is exporting. A disequilibrium of some 220 million L.£. has to be faced every year. How does the country manage to meet this deficit while keeping with a general aspect of prosperity has puzzled all foreign experts studying the Lebanese economy. ¹

The fact is that the Lebanese economy is sustained by the considerable flow of remittances sent every year by Lebanese emigrants to their resident relatives. This benevolent flow of capital keeps the country's reserve in foreign currencies well supplied to meet the disequilibrium of the balance of trade.

Nevertheless, the economy of a country should not rely on such a precarious source of income which might disappear sooner or later.

There are two solutions for the establishment of an equilibrium in the Lebanese balance of trade.

1. Cuts of imports by high tariffs or quotas.
2. Increase of exports.

The second solution is certainly the best because of the repercussions of the export multiplier (the final expansion of the national income from exports is not equal

1. Mr. Van Zeeland.

to the income from these exports but to a multiple of them).¹

The cut of imports is a drastic measure which should only be considered as a last resort. When a country cuts its imports it might be better off in the short run i.e., as long as it keeps or expands its exports. But this measure would provoke a decrease in other countries exports which ultimately would reduce their imports.

In international trade the will of one country to cut its imports almost automatically destroys its possibilities to export. Since imports of country A represent exports of country B (and other countries) if country A cuts its imports country B would be faced with a decreased exports and would ultimately cut its imports from country A.

It is a vicious circle; the sort of circle in which international trade is in at present. We have gone back to the mercantilist conceptions of the XVIth century "import as few as you can and export as much as you can" and the belief that a country could prosper by cuts in its imports while keeping or even expanding its exports.

As far as the Lebanon is concerned a cut of imports is not a good solution to the problem of the disequilibrium of its balance of trade because:

1. The country is in need of the largest part of the commodities imported.

1. Meynaud "La vie Economique" p.360.

2. Trade being an important item in the national income a cut of imports might lead to a lower standard of living.

3. There are large possibilities of expanding the present volume of exports which will reduce the gap between exports and imports.

We shall examine in Table XXIV and XXV the Lebanese balance of trade in two aspects:

- Cuts of imports.
- Expansion of exports.

TABLE XXIV.

Possible Cuts in Lebanese Imports. ¹

Items	Imports ²	Possible cuts.
1. Living stock and Animal Kingdom products.	28,457	-
2. Vegetable Kingdom products.	77,723	-
3. Fats grease, oil, wax.	2,912	-
4. Manufactured food-stuffs, liquors, tobacco.	14,204	7,000
5. Minerals.	25,638	5,000
6. Chemicals, paints, perfumes explosives.	14,810	4,000
7. Leather, peltry, furs.	5,092	-
8. Rubber and derivatives.	2,850	-
9. Wood, cork and derivatives.	7,775	-
10. Paper and derivatives.	5,831	-
11. Textiles.	46,094	10,000
12. Shoes, hats.	964	-
13. Ceramic, potteries china wares.	5,585	-
14. Pearls, Gold and precious stones.	39,461	-

Possible cuts in Lebanese Imports (continued).

Items	Imports in £1000 L.	Possible cuts in £1000 L.
15. Metals.	21,283	-
16. Machinery, electrical apparatus.	26,286	6,000
17. Rolling Stock.	13,022	5,000
18. Scientific and Musical instru- ments, clocks.	3,570	-
19. Firearms, weapons.	501	-
20. Miscellaneous.	1,624	-
21. Objects of Art.	3,367	-
TOTAL:	347,049	37,000

1. This Table shows the possible cuts in imports which could be made within the actual state of the Lebanese economy (present industrial and agricultural productions) It is a summary of the whole data of imported items which would be too long to enumerate. It is however a rough estimation and does not represent a drastic policy of cuts in imports. It only shows the cuts which could be made without impairing the Lebanese economy which remains tributary to foreign countries for many of its basic needs.

2. Bulletin de Statistiques. Vol. III No.4.

TABLE XXV.

Possible expansion of Lebanese Exports. ¹

Items.	Local consumption ² in £1000 L.	Potential Surplus for production Exports in £1000L. in £1000 L.	
Foodstuff Industries:			
Biscuits	1,700	4,500	2,800
Halawa	8,000	20,400	12,400
Jam	400	15,000	14,600
Macaroni	1,500	22,500	21,000
Chocolate	2,250	13,000	11,750
Sweets	10,000	24,000	14,000
Beer	1,450	6,800	5,350
Arak	3,600	10,800	7,200
) Olive	15,000	30,000	15,000
Oil) Vegetable	7,000	48,000	41,000
) Sesam	5,000	24,200	19,200
II. Tanning Industry:			
Tanneries	8,000	16,000	8,000
Leather Shoes	25,000	50,000	25,000
III Bldg. Industry:			
Cement.	16,250	26,500	10,250
Bricks & floor slags.	2,000	3,000	1,000
Foundries.	2,000	6,500	4,500

Possible Expansion of Lebanese Exports (continued)

Items.	Local consumption in £1000 L.	Potential production in £1000L.	Surplus for Export in £1000 L.
IV. Textile Ind.			
Silk reeling	6,000	29,000	23,000
Rayon and silk weaving.	16,000	20,000	4,000
Woollen cloth.	15,000	30,000	15,000
Cotton spinning.	3,500	32,000	28,500
Knitting.	5,000	12,500	7,500
Cotton weaving.	10,000	12,000	2,000
V. Miscellaneous.			
Soap.	18,000	36,000	18,000
Matches.	2,000	6,500	4,500
Electric energy.	80,000	130,000	50,000
VI. Agriculture. ³			
Citrus.			20,000
Apples			30,000
Bananas			10,000
Vegetables.			40,000
TOTAL:			465,550

1. This Table is an original work and items are gathered from Lebanon's Industry, Bulletin Economique et Financier and personal investigations in Lebanese industries. The value of the potential production is that of the market.
2. Lebanon's Industry.
3. The figures for agriculture are a very conservative estimation which could be reached if only 25,000 more hectares were irrigated.

From Tables XXIV and XXV we can draw the following conclusions.

1. Cuts of Imports: Unless the Government would resort to an unadvisable policy of drastic cuts of imports the economies provided in cutting some superfluous imports would not help much in restoring the equilibrium of the Lebanese balance of trade.

An economy of some 37 million L.£. would not be enough to meet the yearly deficit of 252 million L.£.

As to restricting drastically the imports, we can see from Table XXIV that the most important items imported are vital to the Lebanese economy. The Lebanon could not stop importing living stock or food although costing 106 million L.£. nor could it do without machinery (26 millions) or minerals (25 millions) or metals (21 millions) or textile raw materials (46 millions).

If such a policy is resorted to, the productive forces of the country could be endangered. It might be argued that instead of importing for 7 million L.£. worth of sugar, for instance, local industries could provide the local market with the necessary supply. But as long as in the Lebanon beetroots or sugar canes are not grown it would be a mistake to produce at home a product which could be imported for much cheaper. For the sake of making economies

in the volume of imports the cost of living would have to rise and affect the standard of living.

2. Expansion of Exports: If a serious policy concerning the equilibrium of the balance of trade is to be taken it should only aim at an expansion of exports.

Table XXV shows the potential possibilities: that is the volume of exports which could be reached if both industry and agriculture were fully developed.

We have condemned protective policies with high tariff barriers because the future of the Lebanon, as that of any country, lies in an expansion of exports.

If Lebanese industries were to be protected against foreign competition they will be able to secure the home market and the country could thus do without many imported manufactured goods. But the volume of exports would not have expanded since protected industries cannot secure foreign markets because of their high costs of production. The Lebanon then would still be left with a disequibrated balance of trade since there are many vital products, machinery apparatus, chemicals, rolling stocks, which will have to be imported.

If Lebanese industries were to be systematically protected they might in the short run experience a misleading boom but their volume of production would have soon

reached the level of the local demand which, in a small country like the Lebanon, remains very restricted. The possibilities of the Lebanese industry and agriculture far exceed the local demand and after a short "prosperity" industries would be forced to slow down their production and remain in a dangerous "stalemate" from which the country could not prosper. When we consider all the markets of the Middle East which could be secured by competitive Lebanese industries we realize that the solution is not protection but encouragement in producing at a lower cost than foreign industries.

From Table XXV we can see that Lebanese exports could reach 465 million L.£. instead of the present 95 millions. It is obvious that in order to reach this level of exports much more than the present imports would be needed, more machinery, more raw materials etc... Even if the equilibrium of the balance of trade is not reached it is much more profitable to the country that this deficit be stabilized at a higher level of trade exchanges.

The present condition of the balance of trade being:
Imports: 347 million L.£. - Exports 95 millions.

With the expansion of exports the figures might reach:¹ imports 600 million L.£. - Exports 465 millions.

Even if the disequilibrium still remains there are every year some 370 more millions L.£. pouring on the

1. The figures for future imports are a rough estimation.

country and their export multiplier would have a larger effect than the present exports.

Furthermore the Lebanon could rely on its invisible exports to make up for the disequilibrium.¹

On the other hand when the Lebanese economy would have been developed there would necessarily follow certain normal cuts of some imports. If we only mention the 106 millions L.£. worth of foodstuff imported at present and which will not be imported once the Lebanese agricultural possibilities are exploited.

To conclude, we could say that every policy thriving at a cut of imports on order to restore the equilibrium of the balance of trade in the Lebanon is dangerous and inadequate mainly because:

a. These cuts cannot be important without impairing the economic life of the country.

b. The Lebanon is tributary to foreign countries for many of its vital needs and the only way to pay for them is through exports.

c. A cut of imports would place Lebanese industries within a high tariff barrier and make them unable to compete in price with foreign products.

d. The Lebanese market is too small by itself and the possibilities of the productive forces of the country

1. The disequilibrium of the balance of trade is not very important since only the balance of payments shows the real situation of a country.

far exceed the local demand.

If Lebanon is to prosper the policy of the Government should be directed towards the expansion of exports through the development of a competitive industry and agriculture.

CONCLUSION.

The main deficiency of the Lebanese Government today is in the complete lack of policy in every sector of the economic life of the country.

The major reasons for this absence of policy might be found:

1. In the Political structure of the country:

Although the Lebanon is a parliamentary democracy yet it lacks the fundamental structure of a parliamentary Government: the party system.

Parliament, in the Lebanon, is not an assembly of different parties trying to secure power by appealing to the electorates with their elaborate economic, social and political programmes. Parliament is rather a heterogeneous body of individuals elected on their personal merits, connections, wealth, social standing or popularity without any consideration to their views or their intended action as representatives of the country. A Government is thus formed by a combination of individuals.

This is why we do not see in the Lebanese Parliament either the need nor the responsibility for these individual M.P's to undertake a policy which they did not even promise to their electorates. They are free from any binding engagement except those of a direct help to individual

supporters, which only creates an inevitable degree of corruption and favouritism.

2. In the character of prosperity of the country: Lebanon seems certainly the most prosperous country of the Middle East.

- Its standard of living is far higher than that of any Middle Eastern country.¹
- Its balance of payments seems always in equilibrium in spite of an important disequilibrium in its balance of trade.²

But this prosperity is very precarious.

- A large section of the population lives on remittances sent by wealthy relatives abroad.

- These remittances have helped so far, and probably would in the near future, to fill up the shortage of foreign currencies brought about by the permanent disequilibrium of the balance of trade.

The Lebanon today is facing ever growing problems.

1. The population of this already over-populated country (120 inhabitants per sq/Kilmt:) is increasing rapidly.

In 1952 the birth rate was 26%.

the death rate was 9%.³

With such a rate of growth the Lebanon is doubling its population every 60 years. It has the birth rate of

1. See Chapter VII page 180.
2. See Chapter VII Section 2.
3. Bulletin Statistique Vol.III No.1 p.3.

undeveloped areas and a death rate similar to that of Western countries.

2. Social injustice: The Lebanon has no schemes of social security which would alleviate the burden of the working classes and this might lead to social and political disturbances. Furthermore since the war a serious problem of unemployment has arisen which requires an urgent solution.

Nevertheless the apparent aspect of prosperity has brought the belief that "things are not so bad after all" and that the country could keep going without any governmental interference. But the role of the modern state in the economic life of a country has now evolved to what has come to be called the "Welfare State" and the Lebanese Government should realize that it is time to draw some basic lines of an economic policy in order to -

- Raise the standard of living.

- Increase the national income by the full exploitation of the country's resources.

- Reabsorb unemployment and population growth.

An economic policy in the Lebanon should be based on the two following facts:

1. That the most important natural resource of the country is its water supply. From its exploitation might depend the prosperity of the Lebanon.

2. That an economic development in the Lebanon

should follow simultaneously two lines -

- Agricultural expansion
- Industrial development

In this respect the policy to follow is helped by the natural conditions of the country since these two sectors of the economy depend equally on the same factor; water.

From all these considerations we urge the Lebanese Government to take the following measures.

1. Concerning Agriculture.

a. The institution of a commission of study formed by technicians and economists:

1. To investigate the water resource of the Lebanon taking as a basis Naccache's scheme.
2. To survey all the lands which would benefit from irrigation in order to levy conveniently public assessments and taxes.
3. To determine the best distribution of the water supply between the two sectors of the economy (agriculture and industry).
4. To estimate the capital required for the complete exploitation of the water supply.

b. The institution of a commission of financial experts and business men:

1. To determine the best form of organization

which would be suitable for the exploitation of the water supply.

2. Investigate the means of finding the required capital.

c. The creation of an autonomous body "The Lebanese Water Authority" protected from political interferences.

1. To collect the needed capital.

2. To establish a programme of work by which the whole scheme would be spread over a certain period of time.

3. To organize and control the operation of the scheme.

2. Concerning Industries.

As far as the development of industries is concerned the policy of the Government should be one of encouragement and not protection by a high tariff barrier. The aim of a Government should be in securing exports and not only in keeping the local market for local industries.

The inconvenience of protective tariffs, although many economists believe in their necessity for infant industries, is that once they have been established it is rare to see them removed once the industries have grown up.

The other inconvenience of protective tariffs is that once they are established in one country all other countries would do the same and as a result international trade

would decline.

Finally, protective tariffs might secure the local market for local industries but the benefits from exports, with the process of the export multiplier, are much larger than the benefits from sales within the country.

The real problem for the Lebanese Government is one of encouragement of the local industries so as to provide them with the best conditions of production at a low cost. In this respect Lebanese industrialists are at a disadvantage since their costs of production are unnecessarily increased by a number of factors, raw materials, capital, fuel, etc... which might certainly be secured at a lower price.

The policy of the Government should be then:

1. To supply Lebanese industries with cheap and subsidized raw materials as other governments do.

The total imports of raw materials in 1952 were ¹

- Minerals:	41,767 tons	for	£21,283,000 L.
- Cotton & textiles:	8,723	" "	£37,100,000 L.
- Sugar :	20,654	" "	£5,939,000 L.
- Miscellaneous :	10,000	" ""	<u>£8,000,000 L.</u>
Total of:			£72,322,000 L.

The Government has two means of reducing the costs of raw materials:

- a. In buying the raw materials with foreign countries

1. Bulletin Statistiques Vol III No.4. 1953.

at the official rate of exchange thus providing a reduction of 30% of the present purchasing cost.¹

b. In abolishing custom duties (25%) on imported raw materials and machinery.

2. Lower the costs of fuel and electric energy.

The Lebanese Government should reach an agreement with the Irak Petroleum Company's refinery of Tripoli and the distributing companies in order to lower the cost of fuel.

Fuel oil should be sold at about £30 L. instead of £53L.

Gas Oil (Paraffin) should be sold at £60 L instead of £95 L.

These prices are charged in many Middle Eastern countries and there is no reason why they should not prevail in the Lebanon.

As to the cost of electric energy the achievement of the hydro-electric scheme would ensure a sufficient supply of electric energy at a much lower price (about 3 L.P. per K.w.h. instead of 10 L.P.).

3. Provide industrialists with long terms credits at a low rate of interest (4% instead of 8%).

There is at present a Governmental "Office for Agricultural Industrial and Hotel Credits" which is supposed to provide loans to people concerned with these activities.

1. Foreign currencies are 30% cheaper when secured at the official rate of exchange. See Table XVII.

The figures of the credits opened during the last three years are shown in Table XXVI.

TABLE XXVI.

Agricultural, Industrial and Hotels Credits from the Government (1951-52).¹

Years	Agricultural Credits		Ind. Credits		Hotel Credits	
	Number	Amount in £1000L.	Number	Amount in £1000L	Number	Amount in £1000L
1950	-	-	-	-	37	626
1951	1220	2,873	-	-	30	471
1952	341	799	-	-	16	163

As we see, industries are completely ignored in the distribution of credits by the Government.

4. Secure bilateral agreements for the surplus production of Lebanese industries.

Many economists condemn bilateral agreements which they hold responsible for the restriction of international trade in its multilateral forms. But at a time where every country is repudiating free trade from its policy, the Lebanon cannot stand as the champion of liberalism.

1. Bulletin Statistique Vol. III No.4.

For the Lebanon the need of bilateral agreements is very urgent and they could easily be secured since

a. The Lebanon is importing much more than exporting and should be considered as an excellent market by Western countries.

b. Foreign countries are trying very hard to secure markets like the Lebanon and the prevailing harsh competition could be taken advantage of by the country.

But the problem behind that of securing foreign markets is one of cost of production and the encouragement and policy of the Government should be directed in this sense.

The economic prosperity of the Lebanon depend upon -

1. Irrigation schemes and selection of those crops yielding the largest income.
2. Exploitation of the hydraulical resources for generating electric energy.
3. A competitive industry with low costs of production.

APPENDIX.

In studying the standard of living of the Lebanese rural population we were faced by a complete lack of statistical data. Personal investigations had therefore to be carried out in order to remedy this absence of data.

This study is based on the sampling of a hundred families selected from the various classes of landowners and tenants and from different parts of the Lebanon.

It might be argued that such a restricted sampling would not be enough to give an accurate idea on the real family budgets of the Lebanese rural population. Out of some 100,000 existing rural families a 1⁰/00 sampling is definitely insufficient.

I have tried to remedy this insufficiency by selecting families typical of their class. These 100 samples are not merely an at random selection; families were selected to be as representative as possible.

Furthermore we should bear in mind that:

1. Within each class of the Lebanese rural population, incomes, size of property, ways of living, needs and aspirations are very similar and what applies to one family to a large extent applies to the others.

Apart from the big landowners and to a lesser extent

the medium landowners we shall see ¹ that the variations in incomes and expenditures of families within a class are very small.

2. We have divided the Lebanon into two regions -
- Region of large property holdings (category A).
 - Region of small property holdings (category B).

and the whole rural population was divided into as many as seven different classes in order to have the similarities within the various groups and between the different villages even more marked still.

3. Within every village of the Lebanon the classification of the population into different groups is strikingly similar and is approximately as follows:

a.	Big landowners in A:	2% of their category	}	3% of total pop.
.	Big landowners in B:	5% " " "		
b.	Medium landowners in A:	10-15% of their category	}	15-20% of total pop:
"	" " " B:	20-30% " " "		
c.	Small landowners in A:	20-30% " " "	}	45% of total pop:
"	" " " B:	60-70% " " "		
d.	Tenants.	60-70% " " "		35% of ² total pop:

In most villages the population is distributed with the same percentages for each class and therefore what is true of one village is often true of the others.

1. See p. 214.

2. These figures are estimations.

The 100 families on which we have based our studies include:

5 families of big landowners.

35 families of medium landowners.

15 for cat. A.

20 for cat. B.

40 families of small landowners.

20 families of tenants.

We shall see later why this distribution was decided upon as a modification of the real distribution of the rural population in the Lebanon.

The results reached are shown in the following Tables and Graphs.

TABLE I.

Family Budgets of 20 sampled Lebanese Tenants.

Samples.	Incomes in L.£.
1	825
2	850
3	915
4	915
5	950
6	950
7	950
8	1,000
9	1,000
10	1,000
11	1,000
12	1,000
13	1,050
14	1,050
15	1,050
16	1,100
17	1,100
18	1,200
19	1,200
20	1,300

Median: 1000 L.£. (10th)
1st Quartile: 950 " " (5th)
3rd Quartile: 1050 " " (15th)

TABLE II.

Family Budgets of 40 sampled Lebanese Small Landowners.

Samples	Incomes in L.£.	Incomes in L.£.	Samples.
1	1,800	3,200	40
2	1,800	3,000	39
3	1,900	2,900	38
4	1,980	2,800	37
5	1,980	2,800	36
6	2,160	2,800	35
7	2,160	2,700	34
8	2,160	2,700	33
9	2,160	2,640	32
10	2,250	2,640	31
11	2,250	2,640	30
12	2,250	2,550	29
13	2,300	2,550	28
14	2,300	2,550	27
15	2,340	2,500	26
16	2,340	2,500	25
17	2,340	2,500	24
18	2,400	2,400	23
19	2,400	2,400	22
20	2,400	2,400	21

Median: 2,400 L.£. (20th)
 1st Quartile: 2,250 " " (10th)
 3rd Quartile: 2,640 " " (30th)

TABLE III.

Family Budgets of 35 sampled Medium Landowners.

Region of small property holdings. Category B.		Region of large property holdings. Category A.	
Samples	Incomes in L.£.	Samples.	Incomes L.£.
1	3,600	1	8,000
2	4,000	2	9,000
3	4,000	3	10,000
4	4,800	4	10,000
5	4,800	5	11,000
6	5,500	6	12,000
7	5,500	7	13,000
8	6,000	8	14,200
9	6,600	9	14,200
10	6,600	10	15,000
11	6,600	11	16,000
12	6,600	12	17,000
13	7,200	13	18,000
14	7,200	14	18,000
15	7,500	15	20,000
16	8,000		
17	8,000		
18	8,000		
19	10,000		
20	12,000		

Median: 6,600 (10th)
 1st Quartile: 4,800 (5th)
 3rd Quartile: 7,500 (15th)

Median: 13,600 (7/8)
 1st Quartile: 10,000 (4th)
 3rd Quartile: 17,000 (12th)

Number

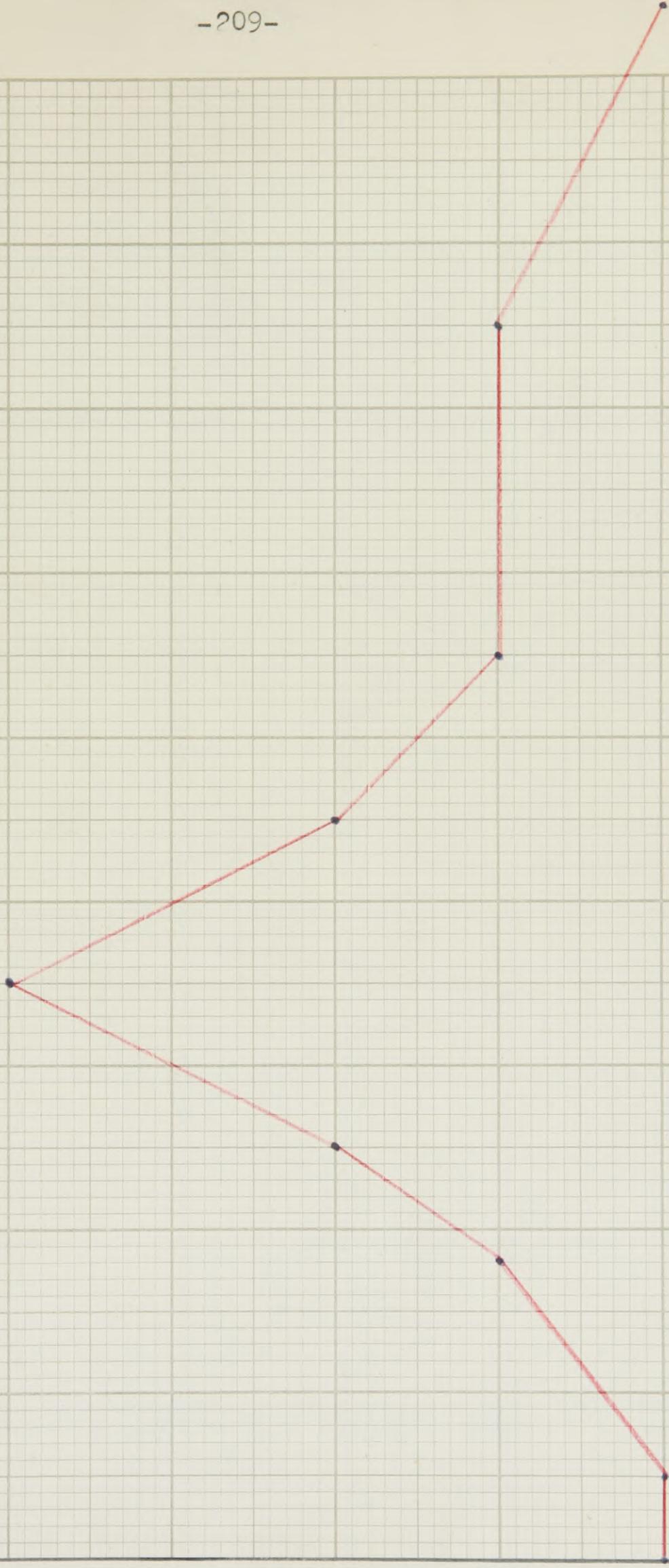
GRAPH I.

Family Budgets of 20 sampled Lebanese Tenants.

5
4
3
2
1

Income in £.L.

825 875 925 975 1000 1025 1075 1125 1175 1225 1275



GRAPH II.

Family Budgets of 40 sampled
Lebanese Small Landowners.

6 Number

5

4

3

2

1

Income in L.£.

3200

3000

2800

2600

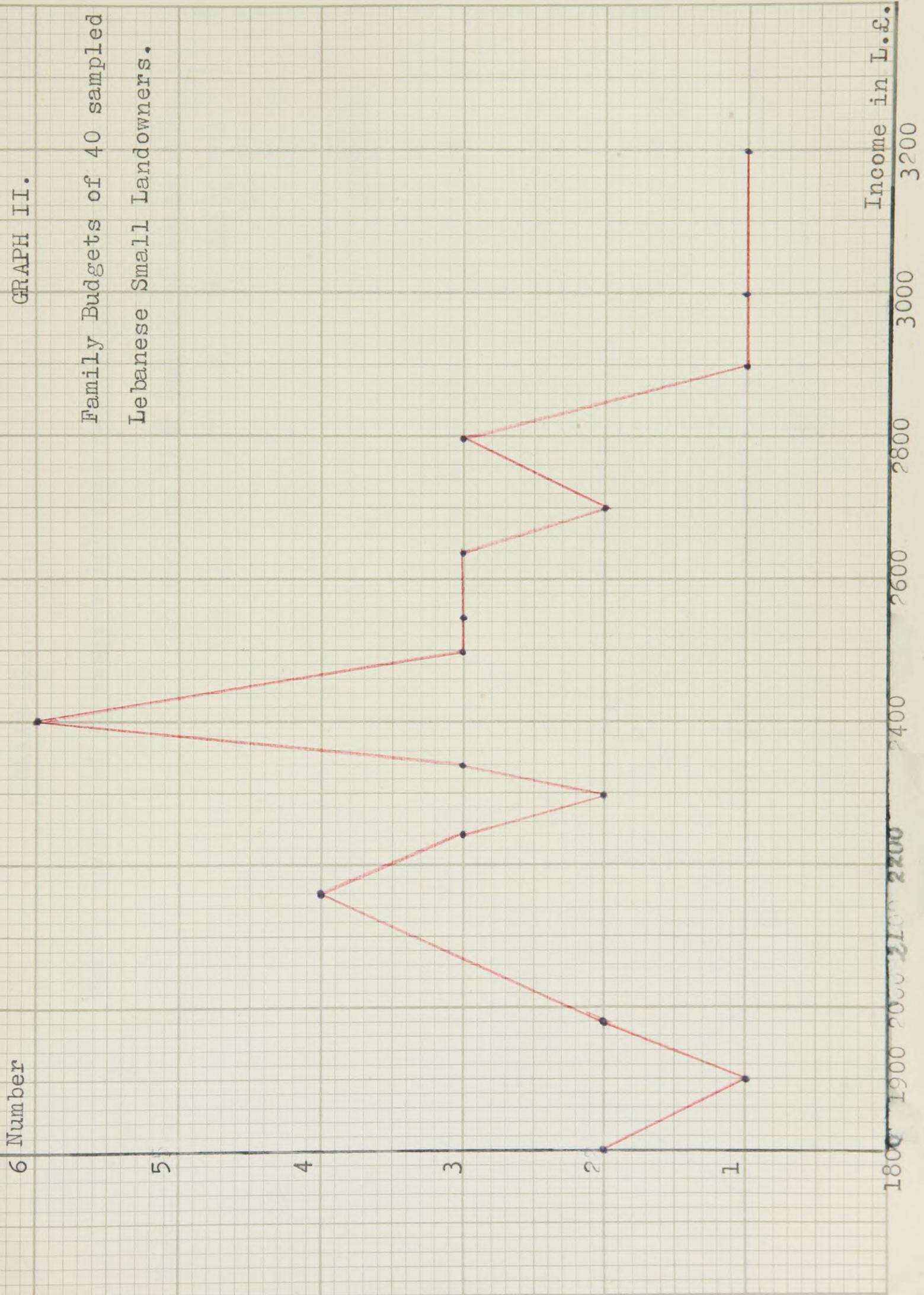
2400

2200

2000

1900

1800



From these tables and graphs we can draw the following conclusions:

1. Assessment of Incomes: The most difficult task of the people sampled was to assess their yearly incomes because:

(a) The sources of income of a rural population are too many to be properly estimated.

(b) Most of the landowners consume their own products and these products had to be converted in terms of money.

(c) Most of the families found difficulties in estimating their income for the whole year.

- Some of them based their calculations on their daily expenditures (implying that since they cannot spend more than what they earn, having no reserves, their income must be then what they spend).

- Others based their calculations on monthly incomes especially when the husband had a job with monthly remuneration.

In most cases it was found preferable to ask for daily incomes (or rather expenditures) in order to reach more accurate figures. This explains some odd figures such as 2,550 L.£. (Table II) when it would have been normal to expect the round figure of 2,500. But 2,550 means 7 L.£. a day.

(d) When families of restricted means, not used to deal with comparatively large amounts of money are asked to estimate their yearly incomes they are bound to underestimate them. Many families of small landowners were surprised to know that their income could reach 2,400 L.£. a year. For them when income is thought in terms of money it should actually only mean the amount of "cash" they really earn excluding the products they gather from their land for their home consumption.

The task then was to assess all these various forms and sources of income and include them in their family budgets.

2. Measures of Variation: It was found interesting to study the degree of variation of incomes within the same class in order to see how homogeneous the classes were. The best way to reach such a measurement is through the "Quartile deviation" the half distance between two quartiles

$$\frac{Q3 - Q1}{2}$$

Q3 being the excess of the upper quartile over the Median.

Q1 the excess of the Median over the lower quartile. But in order to establish a comparison between the various classes studied the quartile deviation could be divided by the respective median of each class and the results given in

percentage $\frac{(Q3 - Q1)100}{2M}$

The following measurements of deviations were worked out -

a. Tenants:

Q3 = 1050 L.£. Q1 950 Median 1000.

$$(1050 - 950) 100/2 \times 1000 = 5\%$$

b. Small Landowners:

Q3 = 2640, Q1 = 2250 Median 2,400

$$(2640 - 2250) 100/2 \times 2400 = 8.15\%.$$

c. Medium Landowners:

(1) Category A.

Q3 = 17,000. Q1 = 10,000, Median 13,600

$$(17,000 - 10,000) 100/2 \times 13,600 = 26\%$$

(2) Category B.

Q3 = 7500 Q1 = 4800 Median - 6600

$$(7500 - 4800) 100/2 \times 6600 = 20\%$$

These percentages show how small the deviations are between families of tenants and small landowners though more important between families of medium landowners.

In fact it was normal in the Lebanon to anticipate these variations and this is why in the distribution of the 100 samples we have neglected the real distribution of the rural population in the Lebanon and studied

20 cases of tenants representing 35% of the population

40 cases of small landowners representing 45% of the population.

35 cases of medium landowners representing 20% of the population.

When the variations are small a small number of samples would give an accurate picture of their class. This is why we had less samples of tenants and small landowners in relation to their importance in the rural population.

When there are larger variations it is preferable to study more cases in order to reach figures nearer to reality.

3. Significance of Graphs: More than Tables, Graphs have the advantage of giving a visual picture of the distribution of incomes of families within the same class.

a. Big Landowners: They offer no real interest as far as family budgets are concerned since their standard of living is comparatively high. It was considered preferable in this study to deal with classes living near what we have called "The Decent Standard of Living".¹

The budgets given for this class are not typical but rather an estimate (based on five samples) of what they could be.

b. Medium Landowners: The Graph (III) shows the average to have no significance especially for those families in areas of large property holdings (cat. A.). The distribution of 1 to 2 to 1 to 2 families with the same income might just be a coincidence of sampling with no real value at all. The study of this group should have included a much larger

1. See Table XIX and p.173.

number of samples.

The graph of the medium landowners in the region of small property holdings has a certain significance both because the variations are smaller and the samples more numerous. It shows two groups of families within the same class with respective incomes of 6600 L.£. (the Median) and 8000 L.£.

c. Small Landowners: The graph is quite significant and shows two clearly marked sub-classes with respective incomes of 2,400 L.£. and 2,160 L.£. This odd figure (2160) is very interesting because it represents an income of 6 L.£. a day and many families basing the assessment of their yearly incomes on daily expenditures have given 6 L.£. a day.

d. Tenants: The graph is very significant and almost symmetric with only one important group with 1000 L.£. income. In fact the family budgets of this group of families is too small to offer any variation. The quartile variation is only 5% and half the families studied live with almost similar incomes.

It seems then that the smaller the variations of income between families the more significant the graphs are (with almost the same number of samples).

On the whole the family budgets given in this study are very close to reality. They are not theoretical budgets,

not even average budgets reached through arithmetic means but typical and representative budgets of a great number of families within a class.

Nevertheless there is a serious need for a more scientific study of the standard of living of the Lebanese rural population.

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