UNITED STATES TECHNICAL AND ECONOMIC ASSISTANCE TO LEBANON

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INTRODUCTION

In 1949, the United States Government embarked on a program of technical and economic assistance to underdeveloped areas of the world, which came to be popularly known as the 'Point IV Program'. Countries of the Far East, Middle East, Africa and South America are beneficiaries of the Program.

The United States had little previous experience in providing technical assistance to underdeveloped countries, except for a similar program which was undertaken in South America during World War II. The Government, therefore, had largely to run Point IV on an experimental basis, being prepared for the fact that serious mistakes in the implementation of the Program were likely to be made at the outset. Point IV legislation was amended several times over the past six years in an attempt to improve organization and implementation.

Receiving technical assistance was also a new experience for the underdeveloped countries. The success of the Program largely depends on the willingness of both the governments and the peoples of the underdeveloped countries to receive outside aid for economic development and their ability to make good use of it. In the words of Paul Hoffman "technical assistance can be imported but not exported". Consequently, Point IV aid is only given at the request of an underdeveloped country. However, despite the fact that Point IV aid was requested by

a number of underdeveloped countries, it tended to be a disappointment to them more often than not. The first impression which these countries had was that through Point IV, the United States Government would provide extensive financial grants to underdeveloped areas. Considerable efforts therefore had to be made in order to overcome the prevalent opinion among recipient countries that Point IV meant financial aid, and to have underdeveloped countries prepare development schemes which they were in need of.

Since the beginning of the Program, arguments have been raised by the citizens of the United States, participating countries and countries which were merely spectators to Point IV activities. Questions were raised concerning the value of the Program as a means of helping underdeveloped countries to develop, and the political and economic value of the Program to the United States. Interested parties also questioned United States motivation in undertaking Point IV aid, and controversy developed over the best means to implement it.

This thesis does not attempt to answer the above questions, but it may touch upon some of them in the study of Point IV activities in one specific country, namely Lebanon. The study of Point IV in Lebanon may be of interest in two respects. One is that it will show how economic and technical assistance functions in practice. The other is that, the economy of Lebanon being different in many respects from those of the majority of the other participating countries, may prove to have unique economic problems and needs.

Most of the information on the activities of Point IV in Lebanon was obtained from interviews with members of the United States Operations Mission in Lebanon (USOM/L) and from some of the Mission's reports. Although the interviews were with both American and Lebanese employees, the information obtained may tend to be one-sided since the writer did not get a chance to interview members of the Lebanese Government who work together with the Mission. Criticisms, however, were obtained from various other sources, including the Mission itself. The criticisms were not incorporated in the thesis, however, unless the writer believed them to be worth discussion.

Since most of the information for the thesis was amassed in the Summer of 1956, the thesis includes the Mission's activities as of April 1956, unless otherwise specified. Some of the Mission's activities, however, were brought more up to date in the concluding chapter.

Since the Mission's activities are numerous and widespread, the writer could not delve deeply into all of them, but had to be satisfied in stressing the most important projects undertaken by the Mission in cooperation with the Lebanese Government.

The thesis is divided into six chapters. Chapters I and II are of an introductory nature. Chapter I relates the events and attitudes which led the United States to embark on a technical assistance program for underdeveloped countries, and also the meaning of Point IV itself, whereas Chapter II deals with the social and economic structure of Lebanon.

Chapter III discusses Point IV legislation and the organization of Point IV in Lebanon. Chapters IV and V survey the projects undertaken by the Mission in cooperation with the Lebanese Government. Chapter VI is the conclusion of the thesis and discusses whether the United States technical and economic assistance to Lebanon is liable to lead to the original objectives of the Point IV Program.

ABSTRACT

The Point IV Program involves the extension of technical and economic aid to underdeveloped countries. It was the outcome of the growing realization by the United States Government that the welfare of the country largely depends on the welfare of other countries. Previous experience gained by the United States in foreign aid programs was largely obtained from a technical assistance program to South America which began during the Second World War, and from the Marshall Plan applied to Europe. One of the countries receiving aid under the Point IV Program is Lebanon. This thesis is a study of the economic aspects of the Point IV Program as they apply to Lebanon.

Lebanon is economically more developed and has a higher level of education than most of the other underdeveloped countries participating in the Point IV Program. It is also unique in that trade, rather than agriculture produces the largest proportion of the national income. However, trade employs only a small proportion of the population while agriculture employs more than half of the population. The industrial sector is the third largest contributor to the national income, and has considerable potentialities for expansion.

Two agreements were entered into by Lebanon and the United States before embarking on the Program. The Program involves technical assistance as its major component as well as economic and special assistance such as small capital transfers and relief activities.

The present thesis covers operations between 1952 and 1956. Operations spread over several sectors, chief among which was the agricultural. Other sectors and fields of activity were natural resources, industry, education, health and sanitation, and training.

It is virtually impossible to measure the impact of the Point IV Program on the Lebanese economy, owing to the small number of years surveyed, and the slowness with which technical assistance reflects itself in the performance of the economy. However, certain observations can be made. Some projects were successful enough to be handed over completely to the Lebanese Government. Others had to be discontinued either during their implementation or after they were handed over to Lebanon. Invariably, the Program has made itself felt in one aspect or another.

A total of $24.7 million was obligated by the United States. Out of this sum, $16.5 million was spent between 1952 and 1956. The time lag involved results from several factors discussed in the thesis.

The final evaluation of the Program shows that the projects which have had, or have the potentiality of having, the greatest impact on the economy of the country are agricultural projects and the Industry Institute which provides private consultations to industrialists.

The long-run acid test however, will be whether the Lebanese will be trained well enough to continue the various Point IV projects when the Mission leaves the country and whether technical change directly or indirectly resulting from the Program is significant enough to step up economic growth tangibly.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

THE BACKGROUND OF THE POINT IV PROGRAM

I. Introduction

Lebanon is only one of the many countries receiving United States technical and economic aid under the Point IV Program. In order to be able to make a case study of this program in Lebanon, it is necessary first to discuss the program itself: how it originated, what its objectives were, and what obstacles arose in the course of its implementation. This introduction deals with the above questions; the discussion of the functioning of the program in Lebanon itself is left to a later chapter.

The Program originated in the fourth point of President Truman's Inaugural Address made on January 20, 1949, which began:

> "Fourth we must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas.." 1

The Point IV program resulting from Truman's speech was neither 'bold' nor 'new'. It was the outcome of the gradual change taking place in the United States foreign policy for the last decade or so, and of the Government's growing realization that the welfare of the United States depended largely on the welfare of other nations.

Although United States technical assistance to foreign countries started during World War II, large-scale military and economic assistance

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1. The fourth point in President Truman's Inaugural Address, January 20, 1949, quoted in the Annals of the American Academy of Political and Social Sciences, March 1950, Appendix.

was made as far back as the first World War, when the government granted loans and supplied foodstuffs to its European allies. The above assistance however, was of a short-lived nature and ended shortly after the war.

II. TECHNICAL ASSISTANCE TO SOUTH AMERICA[1]

During the inter-war period only South America received United States assistance, as part of the long-standing United States Good Neighbor Policy. However, this assistance was on a very small scale and it was only after the 1938 Munich Agreement when the danger of war became imminent that Congress made economic aid to South America a fundamental part of its foreign policy. Plans were made for closer commercial and cultural ties between the United States and Latin America, in order to prevent Nazi and Communist infiltration. United States technical assistance proper had its start at this time. It is interesting to note that the assistance program arose largely through experimentation as to the best way of helping the receiving countries and not by way of well thought out plans.

At the outset of this economic aid program to Latin America, technical assistance consisted of sending United States Government officials to the United States for training. Various government administrations, such as the Bureau of Public Roads, Census and Mines, and the Aeronautics Administration, sent experts to Latin America. The United States public

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1. The writer relied heavily in the preparation of this section on Bingham, J.B., Shirt Sleeve Diplomacy, N.Y. 1954.

health service, in an effort to prevent communicable diseases, cooperated with corresponding officials of other American countries. The United States Government also assisted in improving the production of natural rubber.

The above form of technical assistance was restricted to advising government officials. It did not go as far as to teach people themselves how to improve their working methods and raise their standard of living.

Dissatisfaction, both on the part of South American countries and the United States, as to the effectiveness of United States economic aid, resulted in the Conference of American Foreign ministers held in Rio de Janeiro in 1942. The conference founded the Institute of Inter American Affairs (IIAA), which was to undertake various projects to raise the standard of living in Latin American countries. Nelson Rockefeller was made the head of the Institute since he could draw on the past experiences of the Rockefeller Foundation in preparing and implementing similar projects.

The idea of giving 'know how' to peoples of other countries or helping to promote 'learning by doing', which is one of the underlying objectives of the Point IV program, emerged rather unintentionally while IIAA was working in South America. The Institute acted on the assumption that its work would be most effective if done in close cooperation with South American Governments. In order to accomplish this, a system of in-service training of Latin Americans developed and became known as 'servicios.'

A typical example of a servicio is one which was organized in Peru as an agency of the Ministry of Health. The director of the servicio was

a health expert from the United States Government who worked out a plan of action together with the Peruvian Minister of Health, covering projects in such fields as malaria control, construction of sanitary water systems, and founding of health centers. Both Governments contributed to the servicio fund in amounts agreed upon each year. Salaries of the United States employees were paid by the United States Government, but most of the personnel were Peruvian on their own government's payroll.

During the war, approximately 25 similar servicios were organized in 18 Latin American countries to carry out joint projects in health, food supply and education. Both governments contributed to the funds of each servicio with gradual increase in the proportion of expenditures carried by the South American government. This was done in order to prepare the local government to carry on the servicio project without the help of the United States. The first year of the servicios, the United States contributed five times as much as the Latin American governments in 1947, Latin American contributions surpassed United States outlay; and in 1950, Latin American governments expended three times as much as the United States and many projects initiated by the servicios had been taken over by the Latin American governments and were completely financed by them.

Although some servicios failed, the operations of the servicios as a whole led to substantial accomplishments in promoting social and economic development. The servicios continued to operate after the war and the program was given impetus by Truman's Inaugural Address. In 1949, Congress extended the Charter of the IIAA for another five years.[1] The IIAA projects

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1. Hanson, S.G., "Latin America and the Point IV Program", Annals of the American Academy of Political and Social Sciences, March, 1950, p. 41.

were the beginning of United States technical assistance abroad and formed a basis of experience on which the government could draw at the beginning of the Point IV Program.

III. THE MARSHALL PLAN

After the Second World War, the United States gave aid to war-devastated countries. Between 1945 and 1947, 16 billion dollars were expended for economic assistance.[1] Aid was granted through lend lease, United Nations Relief and Rehabilitation Administration, Export-Import Bank loans, direct loans authorized by Congress or outright grants. About nine billion dollars were expended on Europe and seven billion dollars on the rest of the world.[2]

During the two years following the war, the main purpose of assistance was to satisfy the very immediate needs of the countries affected by war. The prevailing opinion in the United States was that the rehabilitation of these countries would be a matter of a few years only. However, it turned out to be a much bigger and more intricate problem than originally thought.

The first sign of a change in government attitude toward foreign aid policy came in a graduation speech made by the Secretary of State, George C. Marshall, at Harvard in 1947. He was the first to confirm that the rehabilitation of the economic structure of Europe will require a great effort over a long period of time. Marshall stressed the fact that

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1. Alexander, S., The Marshall Plan, prepared by National Planning Association Committee, Washington D.C., 1948.

2. "Mr. Marshall's Challenge", The Economist, June, 1947, Vol. 152, p. 5.

Europe's requirements for imports of essential goods exceeded by far its ability to pay and that considerable aid was therefore necessary for that part of the world. He brought to light the fact that it was not only the welfare of immediately neighboring countries which was essential for the safety and prosperity of the United States, but also that of all the countries of the world.

Secretary of State Marshall urged the people of the United States to realize their great responsibility in the world and urged the Europeans to take the initiative in working out plans for reconstruction based on a co-ordinated policy for solving their problems in common.

The outcome of this speech was a conference in Paris of sixteen countries (not including Russia, which came at first but later walked out).[1] They agreed upon a plan for European recovery which was principally to depend on European production together with American aid in order to feed the populations and equip agriculture and industry until enough food could be grown at home and enough goods produced for improving the balance of trade through reduced imports and increased exports.

To carry out this program, Congress enacted the Economic Recovery Act. The passage of the Act was facilitated by the fact that it was regarded as not only a contribution to world recovery but as a weapon for fighting the spread of communism.[2] Assistance, according to the Act, was to be given for three purposes: namely, to promote industrial and agricultural production; to attain and maintain political and financial stability;

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1. Alexander, op.cit., p. 7.

2. Brown, W.A. and Opie, R., American Foreign Assistance, p.145.

and to stimulate international trade within Europe and with the outside world. The aid was given in grants and in loans and consisted of services, technical assistance and commodities.

With the purpose of attracting American private investment abroad, provisions were made in the Economic Recovery Act for guaranteeing the convertibility of private investment in the currencies of the original capital invested, providing the total guarantee did not exceed $300 million. The total allotment for the Marshall Plan in the first year was $5.3 billions.[1]

A. The Point IV Program

It was in 1949, when the Marshall aid had already made considerable progress, that President Truman made his Inaugural Address which resulted in a United States technical assistance program to under-developed countries. In the fourth point of his address, which relates to the subject, Truman said:

> "We should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life", and that "in cooperation with other nations, we should foster capital investment in areas needing development."2

The Point IV program was a further sign of a change in United States foreign aid policy since the second World War. The first sign of the United States Government's realization of its increasing responsibilities in the world was the Marshall Plan which attempted to tackle the more

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1. Ibid.

2. The Fourth Point in President Truman's Inaugural Address, January 20, 1949, quoted in the Annals of the American Academy of Political and Social Sciences, March 1950, Appendix.

urgent and immediate problem of the rehabilitation of Europe. Now that that program had made a good start, it was necessary for the United States to help the underdeveloped countries whose low standard of living was not the result of the war but of more lasting and basic factors which prevented these countries from industrializing and developing reasonably fast.

Without going into the controversy over the definition of an 'underdeveloped country', the term usually refers to countries with a low per capita real income and a low standard of living as compared to the developed countries. In general the underdeveloped countries are found in Asia and Africa, the Middle East, south eastern Europe, the Carribbean, and most of Central and South America. On the other hand, areas included in the developed category are Western Europe, Russia, North America, Japan, Australia, New Zealand, and the Union of South Africa.[1] The degrees of economic development vary in each group and it is difficult to make generalizations about either one. For instance, Lebanon, although considered an 'underdeveloped country' has a higher standard of living than most of the countries included in this category.

There were several factors which led the United States Government to embark on a technical assistance program for underdeveloped countries. One was a purely humanitarian one, that the stronger should help the weak.

There was also a political motive behind the Point IV Program.

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1. Buchanan, N.S., & Ellis, H.S., Approaches to Economic Development, 1955, p. 3.
There are various definitions of an underdeveloped country. The United Nations, for example, defines an underdeveloped country as any country having an annual per capita income lower than $350-$400. However, regardless of which one of the various definitions is used,

The Program was established in the belief that a more developed and productive world would be politically and socially more stable. Specifically, poverty and discontent tend to promote unrest and the adoption of extreme political philosophies. Congress contended that United States economic and technical aid to underdeveloped countries could help combat communism in these areas and would win friends for the United States. This premise was hardly questioned at the time of discussion of Point IV legislation in Congress.[1] It was only after the program had its start, that interested Americans realized that allies or friends could not be won by economic aid alone. Yet although the political factor is an important aspect of the Point IV Program, it is not within the scope of the thesis to discuss it.

B. The Meaning of Point IV

Broadly speaking Point IV is a government-sponsored technical cooperation program in underdeveloped countries for basic improvements in economic conditions as distinct from short-term relief, rehabilitation, recovery programs, military and capital assistance. The important factor to keep in mind about Point IV is that it is a program to help underdeveloped countries help themselves. It is to act as a catalytic agent in developing these countries and is not a program which will bring

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Lebanon always falls into the category of underdeveloped countries.

1. Committee of Foreign Affairs, House of Representatives, 83rd Congress, 1st Session, Mutual Security Legislation and Related Documents, U.S. Government Printing Office, Washington 1953.
This idea was prevalent in the above Congressional Records which I perused.

about development all by itself. The major effort for economic improvement must come from within the countries themselves. The only way the United States hopes to help, under this program, is by giving technical assistance and encouraging capital investment in these countries. Truman, and to a much greater extent Congress, wanted to keep United States Government expenditures on the implementation of the program at a minimum.

At the outset of the program, Point IV was misinterpreted by peoples of underdeveloped countries as being a declaration of a new United States foreign policy involving the provision of a large amount of financial assistance, in spite of the fact that Truman insisted that material assistance will be very small. When speaking before Congress he said:

> "The major effort in such a program must be local in character, it must be made by the people of the underdeveloped areas themselves. It is essential however, to the success of their effort that there be help from abroad. In some cases the peoples of these areas will be unable to begin their part of this great enterprise without their initial aid from other countries" and "much of the capital required can be provided by these areas themselves in spite of the low standard of living, but much must come from abroad."1

According to Truman's original proposal, the two most important aspects of Point IV were to be technical assistance and encouragement of capital investment in underdeveloped countries. Largely due to the interpretation by Congress of the program which was envisaged in the Point IV legislation, the former became the more important one.

Technical assistance under the Point IV Program includes assistance and advice in such basic fields as health, sanitation, communication, road-

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1. President Truman's Message to Congress on 'Point IV Legislation', 1949.

building, governmental services, survey of resources, and planning for long range economic development. Since technical assistance was not to be accompanied by a large capital outlay on the part of the United States, capital was to be provided jointly by the participating government and the United States Government, and through foreign capital investments, whenever possible.

Examination of Truman's speeches concerning the Point IV Program reveals his belief that foreign capital investment abroad would be an essential aspect of the Program. Truman suggested that the Export-Import Bank be given the power to guarantee investments against various risks, if the Bank considered these investments capable of contributing to economic development of the underdeveloped country concerned. Guarantees would be given against such risks which the investor would take when investing abroad rather than in his local market, such as nationalization, expropriation, inability to transfer earnings arising from the investment to his own country, trade restrictions, etc. However, this proposal was not approved by Congress, and Point IV legislation has only very vague provisions concerning foreign capital investment. But this aspect of Point IV has anyway become secondary in importance to that of technical assistance.

B. Obstacles to the Implementation of the Point IV Program

There are several obstacles which may hinder the progress of the Point IV Program. Before United States economic and technical assistance can be given to an underdeveloped country both the government and the people of that country have to feel the need and desire to accept outside

assistance for developing their country. Cultural factors often stand in the way of this acceptance and may prove to be a major hindrance to the implementation of the Point IV Program, as to economic development itself. It is not, however, within the scope of this thesis to discuss these rather intricate cultural factors.

The United States Government is also having difficulty in finding qualified technicians to go abroad. Few have the urge to travel. If they do, however, there is the question of whether they will be able to 'get along' with people not of their own nationality, whether they know enough about the country to which they are being sent, and so on.

An important fact to consider is that the United States experts' knowledge of techniques and methods of production are appropriate in the United States but not necessarily in an underdeveloped country. The most economical and beneficial techniques of production vary in different countries, depending on the factor endowments of the countries. In the United States the trend is toward labor-saving and capital-intensive technology, while in many underdeveloped countries, where there is wide spread underdevelopment, labor-intensive and capital-saving projects may be of greater value to the country. Fortunately, there is a growing awareness of this fact among writers in the field of technical assistance.[1] It is now the responsibility of each Point IV technician to become familiar with the country he is working in, its potentialities, factor endowments, and technical level, and to try to introduce the appropriate techniques and methods of production.

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1. See Baster, James, "A Second Look at Point IV", American Economic Review, Papers and Proceedings 1951, pp.399-415.

The program may also be very discouraging both for the country concerned and for the United States Point IV employees. Development is a slow and tedious process. The Point IV projects will often take years before they are completed and before they show any material results. Many projects cannot take place without deep-going cultural changes that affect almost all habits and accepted ways of life. It will not be possible, as it was with the European Cooperation Administration, to set a term as to when the program will end. Point IV raises many problems and challenges.

CHAPTER TWO

ECONOMIC STRUCTURE OF LEBANON

I. Introduction

In order to be able to assess the work being done by Point IV and its impact on economic development in Lebanon, and to estimate the need, or lack of need, as the case may be, for such outside technical and economic aid, some knowledge of the economic and social structure of the country is necessary. The issues stressed in this chapter are those which either affect, or are effected, by the Point IV Program. Therefore, the brief section on the social background stresses such factors which may influence the people's attitude to American aid and their reactions to technical and social changes which are connected with economic development as a whole. In describing the economic structure of the country, the writer has singled out the outstanding features of the economy and the sectors which are of primary importance as income-generating sectors plus the sectors which may be considerably affected by the Program. Thus sections on the finance, government, real estate, services, and the rest-of-the-world sectors, have been omitted.

II. SOCIAL BACKGROUND[1]

Lebanon is in many ways a unique Arab country. It is unique in the sense that it is a country of minorities with approximately an equal

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1. The writer relied heavily in the preparation of this section on Yusif A. Sayigh's Economic Development of Lebanon, Its Prospects and Problems, John Hopkins University, Baltimore, Md., October 1955, (unpublished Seminar Paper), Hourani, A.H., Minorities in the Middle East, 1947; and also on Grassmuch, G. and Salibi, K.,

number of Christians and Moslems, that it has had considerable contact with the West, that it has a relatively high literacy rate, that it is more developed economically than the other Arab countries, and that its largest source of income is derived from trade rather than agriculture.

Lebanon was part of the Ottoman empire until the end of World War I when it came under French Mandate, acquiring full independence only in 1943. In spite of the fact that it was under foreign domination for centuries, it experienced a certain degree of autonomy both under the Turks and the French. The comparative freedom experienced in this country, coupled with the fact that its mountainous regions provide a good place of refuge, has made Lebanon a country of minorities. Throughout history, religious sects and other groups suffering discrimination in neighbouring areas, have come to settle in the mountains of Lebanon with the result that the country at present has a number of small denominations mainly of the Christian and Moslem faiths.

At present there are over 15 religious groups in the country, with an estimated equal distribution of Christians and Moslems. The largest single group is that of the Maronites followed in order of size by the Sunnis, Shiites and Greek Orthodox.[1] Although, to a certain extent, social cohesion of the groups has taken place over the last decade or so, some friction still exists among the various groups and on a larger scale between Moslems and Christians as a whole. These frictions have their roots in the time when Lebanon was foreign-dominated.

A Manual of Lebanese Administration, Pub. Admin. Dept., AUB, 1955 and Myers, N.T., "Long Term Functional Program for Vocational Education", Education Division, USOM/L, Beirut, Dec. 6, 1953 (Unpublished Report).

1. Hourani, op.cit., p. 63.

During Ottoman rule, Christian and Jewish communities enjoyed a considerable amount of autonomy under the millet system, whereby each of these communities was largely under its own jurisdiction. This system resulted in the various groups having very little contact with each other and thus created suspicion amongst them, and inflamed the already existing mistrust and hatred between the Moslems and the Christians.

The Christian-Moslem friction was further aggravated at the time of the French Mandate in Lebanon. The French tended to favorize the Christians, since they were more willing to become Westernized than the Moslems, who were reluctant to part with their culture and traditions and therefore resented the presence of the French. Many Christians looked towards the West with the hope of establishing a foothold in Western civilization as opposed to being an insignificant minority in the predominantly Moslem Arab World, of which they were a part. Another factor which added to the Christian-Moslem conflict during the Mandate, is the fact that under Ottoman rule only the mountains were part of Lebanon while the coast, which was populated mostly by Sunni Moslems, was part of the vilayet of Beirut. Therefore, when France incorporated the coast into Lebanon, the Sunnis found their position changed from that of leaders to that of being only one of the numerous minorities in the country.

The fragmentation of the population is reflected in the structure of the government. The French and later the Lebanese themselves, have established the practice of allocating the seats of power among the sects so as to prevent conflicts that may arise due to competition for power.

Thus the President of the Republic is always a Maronite, the Premier a Moslem Sunni, the Speaker of the House a Moslem Shiite, and his deputy a Greek Orthodox. In Parliament, representation is based on the size of each sect and seat allotments to Christians and Moslems are in the ratio of 6 to 5, respectively. The same holds true in the civil service where representation is based on the relative political influence of the various sects.

There is, unfortunately, a tendency for government officials to work for the benefit of their own group rather than for Lebanon itself. However, a national consciousness is arising amongst some of the officials, whereby it is their aim to widen the officials' loyalties from one to a specific community to one that embraces the whole country.

This separation of the various communities in the country, which is reflected in the structure of the Government, may prove to be a factor which may unfavourably affect the working of the Point IV Program. Conflicts may arise as to certain projects benefiting a specific community and not the others. Point IV officials may find themselves, if not cautious, in the middle of centuries-old religious conflicts of which they may not have previously been aware.

Another factor which makes Lebanon different from the other Arab countries and which may affect the implementation of the Point IV Program, is the considerable contact with the West that Lebanon has had throughout the major part of its recent history. Contact was established through trade with the West which began under the Ottoman empire and continued until the present day. The numerous missionaries who came here from the

West in the 18th and 19th centuries also helped to Westernize the country. Missionary schools were founded throughout the country with a somewhat competitive spirit amongst the religious groups as to the number of schools established by each. The schools, however, were mainly Christian with the result that at present there are more private, sectarian schools for Christians than for Moslems.

The large number of Lebanese emigrants have also helped to keep contact with the West. It is estimated that there are as many Lebanese living outside the country as there are in Lebanon and the annual emigration figure is at least 3 to 4 thousand.[1] Lebanese emigrants usually leave their country in the pursuit of better economic opportunities. Some return, after having made a fortune abroad and others keep in touch with their people. The result in both cases is a flow of capital and ideas into the country.

Lebanon is also different from the rest of the Arab World in that it has a higher level of education with approximately 60 per cent of the population being literate. However, there are many disadvantages to the existing system, and not all children are able to attend school, especially in the rural areas where some villages have no schools or very poor educational facilities.

Schools are sponsored by a large variety of groups, causing a lack of uniformity of curricula throughout the country. There are

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1. Ministry of National Economy, Republic of Lebanon, Bulletin Statistique Trimestriel, 4th quarters 1952 to 1956, p. 30.

government schools which are inadequate in number, location, physical conditions and qualified personnel. Public-school teachers are underpaid and frequently do not have the proper qualifications for teaching. There are also parochial schools sponsored by ten different religious sects and foreign schools sponsored by English, French and American organizations. There are two universities, one French and the other American. The only vocational school of any significance is l'Ecole d'Arts et Métiers which is run by the government. Practical arts are taught only in a few private and foreign schools.

In the primary and secondary schools, the French system of education predominates. This system has proved to be unfavorable for the development of the country in that it tends to prepare its students to be white-collar workers and does not provide them with vocational training. The result is that students have a certain contempt for manual labor. Farmers' sons prefer working in an office as simple clerks rather than in agriculture, even if their remuneration as farmers is higher than as clerks.

Another characteristic of the Lebanese people which is worth mentioning because it has an effect on the economic structure of Lebanon, is their love of freedom.[1] It is mainly due to the fact that Lebanon is largely composed of minorities who have escaped persecution elsewhere and come to this country for refuge. Therefore free, private enterprise is the mainstay of the economy. International trade does not suffer from any control restrictions, with the exception of moderate customs tariffs. There are no foreign exchange controls nor restrictions on

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1. Badre, A.Y., "The National Income of Lebanon", Middle East Economic Papers, 1956, Economic Research Institute, AUB, p. 18.

dealings in precious metals, and there is a free zone to service the whole region.

III. NATIONAL INCOME[1]

The structure of the Lebanese economy can be comprehended by studying the national income of the country. These studies also reveal another peculiarity of the Lebanese economic and social structure, namely that the trade sector is the largest source of income in Lebanon. Yearly comparisons as to the increase of production and *per capita* income cannot be made because national income studies were made only for the three years, 1948, 1949 and 1950, with only the last year's figures as of some reliability. Nevertheless certain conclusions can be drawn from the static picture of national income.

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1. It must be stressed at this point, that the figures in the following sections of this chapter are not completely reliable due to the lack of statistical data in Lebanon. The national income figures for 1950, although far from perfect, are quite reliable. The population figures are based on the 1932 population census. It is difficult to calculate population increase, since it has to be done on the basis of the limited and inadequate data available.

TABLE 1

NATIONAL INCOME AT FACTOR COST AND

AVERAGE INCOME PER WORKER

Sector	Income (LL Mill.)	Percentage Distribution of Total Income	Distribution of Working Population	Average Per Capita Income of Working Pop. (in LL)	Col. 4 in $
Trade	300 (340	29 (33	51,849	6558	2049
Finance	40 (340	4 (33			
Agriculture	206	19	192,000	1073	335
Industry	113 (133	11 (	33,507	3969	1240
Handicrafts	21 (	2	10,352	2029	634
Services	100	10	16,734	5976	1868
Government	72	7	9,931	7250	2266
Transportation & Communication	44	4	19,708	2233	698
Construction	43	4	28,756	1495	467
Other (Real Estate	95 (108	9 { 10	21,163	5104	1595
& Rest of the World)	13 (108	1 { 10			
Total	1046	100	384,000		
Per Capita Income for Working Population				2724	851

SOURCES:

Col. 1 - Badre, A.Y., National Income Studies of Lebanon, Economic Research Institute, Beirut, 1950. (mimeographed).

Col. 2 - Ratio of each sector's income to total national income.

Col. 3 - Badre, op.cit., unless otherwise specified.
Trade population figure was estimated by taking the ratio of the population in the trade sector in 1956 to the total working population of the same year, (See Doxiadis Associates Report referred to previously, p. 14, Table following paragraph 40) This ratio has been applied to the estimated working population of 1950 (see below).
Agriculture population was estimated on the basis that 30 per cent of the population (420,000) constitutes the working population (see Doxiadis Associates Report, p. 12, paragraph 39) and that 50 per cent of the working population is employed in agriculture.
Industrial population: The Industrial Census (Ministry of National Economy, Republic of Lebanon, Industrial Census 1955, prepared with technical assistance of the Economic Research Institute, AUB, Beirut, June 1957, p. 8) estimates the number of people engaged in industry to be 35,013 in 1955. However, the Census did not include industries which employ less than 5 people; thus the number of people employed in industry should be larger. The population engaged in the industrial sector has, therefore, been estimated by the same method used for the trade population.

Handicrafts population was derived by the same method as was population in the trade sector.

Construction population was derived by the same method as was population in the trade sector.

Other:- Residual

Col.4 - Ratio of Col. 1 to Col. 3.

The population is estimated to be 1,280,000 for the year 1950, for which the above national income figures are available.[1] The Annual per capita income is therefore $250. By projecting national income figures for 1956, and estimating population for that year, the per capita income in 1956 must have been $310.[2]

If per capita income is to be used as a measure of development and standard of living, Lebanon will fall under the category of underdeveloped countries;[3] but it has a higher standard of living than the majority of the Asian-African countries.

It can be seen from the table that the trade sector generates the largest proportion of income, namely 29 per cent. Although more than 50 per cent of Lebanon's population is engaged in agriculture, it is only 19 per cent of the national income. Nor is Lebanon an industrial country because too small a part of the national income arises in this sector.

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1. Badre, A.Y. "The National Income of Lebanon", op.cit., p. 13.

2. Population is estimated to be 1,445,000 for 1956 and national income LL 1,422 million (Doxiadis, p. 42, para. 54.)

3. United Nations definition of an underdeveloped country includes any country which has a per capita income less than $400 per year.

There are various reasons for the preponderance of services over goods production in the national product.[1] One of the primary reasons is the country's poverty in natural endowments which has forced the population to play the role of middleman. This role has been aided by the country's suitable location between the Eastern and Western worlds, the temperament of the population and tradition of trade, and the freedom of trade and of foreign exchange movements enjoyed in the country. The extensive travelling done by the Lebanese and the large number of emigrants establishing communities abroad have helped create convenient commercial and financial links throughout the world, which considerably help business transactions.

IV. AGRICULTURE

It would appear from Table 1 that the agricultural sector produces a lower income than most of the other sectors of the economy. It is also worth noting that the 1950 *per capita* income in agriculture was $80,[2] which is considerably lower than the country's average *per capita* income of $250. The agricultural sector generates 19 per cent of the national income while it employs more than 50 per cent of the working population. Thus it would seem that a large number of workers produce disproportionately little product. It must be remembered, however, that the rural population may be eating up much of its own produce; hence the national income figures may be misleading. It is also important to note that there is a large margin

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1. For further details on these reasons see Sayigh's paper, *op.cit.*
2. 1950 population is estimated to be 1,280,000, out of which 63 per cent depend on agriculture (Doxiadis Associates Report, p. 22, para d.) with income generated in this sector as LL.206 million (206,000 ÷ 1,280,000 x .63 = LL.256 = $80.)

be misleading. It is also important to note that there is a large margin of error in the agriculture figures since they are "estimates based on information of large landowners who are interviewed by officers of the Ministry of agriculture", and may therefore be highly unreliable.[1]

The topography of the country prevents the cultivation of a large proportion of the area. Except for the strip of the Akkar plain along the sea and the Bekaa Valley between the two mountain ranges running in a North-South direction, the country is very mountainous on the most part and only costly terrace farming is possible.

TABLE 2

Classification of Land in Lebanon

Cultivated area	273
Irrigated	48
Rainfed	191
Rainfed but irrigable	34
Cultivable but uncultivated	115
Forest	74
Rocky and waste area	556
Others	19
TOTAL	1,038

Source: Agricultural Credit Conference held in Beirut, Lebanon, October 12 to 14, 1953. "Summary of Statements of Facts Pertaining to Agricultural Credit in the Middle East", p. 4.

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1. Badre, A.Y., "The National Income of Lebanon", Middle East Economic Papers, 1956, E.R.I., AUB., p. 2.

It is apparent from the table above that out of Lebanon's small area of one million hectares, only 273,000 hectares, or 27 per cent of the land, are cultivated. Of the total area cultivated, 48,000 hectares are irrigated and the rest are rain-fed. One fifth of the cultivated land lies fallow every year.[1] Apart from the area of land actually cultivated the area of cultivable land is conservatively estimated at 115 thousand hectares. Although cultivation could be extended to this area, it would prove, on the most part, very costly. The major portion of the arable land is in the Bekaa, where rainfall is the lowest in the country; the rest is in the rocky, mountainous area. Hence the country should "devote her energies to an intensification of cultivation of those arable lands ploughed rather than bring new land into use."[2]

There are .4 hectares of cultivated land per person as compared to 28 hectares in the United States and 5 hectares in Denmark. Thus there is high population pressure on the land which is aggravated by extensive land fragmentation. It is estimated that as much as 90 per cent of landowners in Lebanon own less than 5 hectares and the majority of this group own less than 2 hectares of land.[3]

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1. UNRWA, The Present Economic Structure of Lebanon, May 17, 1954, p. 1 (Unpublished Report).
2. Gibb, Sir Alexander and Partners, The Economic Development of Lebanon, Westminster, London, S.W., 1948, p. 41.
3. Agricultural Credit Conference, Summary of Statement of Facts Pertaining to Agricultural Credit in the Middle, op. cit. p. 4.

Small holdings predominate in the coastal and mountainous regions of intensive cultivation, while the plain regions consist mostly of large land holdings worked by share croppers. Some of the latter farms, which are owned by rich landowners, are farmed under modern methods and equipment.[1]

Small farmers usually own the farm they operate while medium-class farmers tend to rent land from smaller and bigger landowners and enlarge the farm they operate. Exact figures for this process are not available but it is known that the larger proportion of big landowners tend to leave their land to operators rather than work it themselves.

The number of agricultural laborers in the country forms a small proportion of farm population, possibly not exceeding 10 per cent. The larger proportion of those who do not own the land they farm are generally share-cropping tenants.[2]

The chief agricultural products in Lebanon are land crops, animal products, forestry, silk and fishing. Land crops consist of fruits, cereals leguminous crops, industrial crops and vegetables. Income arising from crops is 87 per cent of total net income from agriculture; fruits yield approximately 75 per cent of crop income.[3]

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1. Royal Institute of International Affairs, Middle East, 1954, p. 496.

2. Doxiadis Associates Report, Beirut, October 1957, p. 43.

3. Badre, A.Y. "The National Income of Lebanon", op.cit., p. 14.

Lebanese fruits are of exceptional quality and constitute an important part of Lebanese diet. The country's favorable geographical location provides an easy access to several important markets such as Egypt for deciduous fruits, Syria and the Persian Gulf area for fruits and vegetables, and Europe for citrus fruits and apples. However, the export market is insecure because of competition from similar Italian, United States, Spanish and Israeli fruits, and inadequate care in the control of disease and standardization.

Cereals constitute 13 per cent of crop income and they cover 40 per cent of the cultivated land. Therefore the yield per hectare is in value far below that of vegetables, fruits, or industrial crops.[1] However, the latter crops are to a large extent irrigated and require capital expenditures in excess of that demanded by cereal and leguminous growing.

Animal products, as a source of income, are almost as important as cereals. Milk and meat production does not meet the needs of local consumption. Milk production barely suffices to provide an annual per capita supply of 40 pounds.[2] The supply of animal products is limited by the lack of good natural pastures or fodder crops, poor quality of breeds, and disease. From 50 to 60 per cent of the cattle are tubercular and the nutritional practices followed by farmers in feeding livestock are unsatisfactory.

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1. Ibid.

2. Cannon, C.Y., "Report on Animal Husbandry Phase", Annual Report, 1955, Agricultural Division, USOM/L, (Unpublished Report).

Lebanon enjoys a suitable climate and large local and export markets for poultry production. However investigations made in 1952 by the Mission and the Ministry of Agriculture revealed the poultry situation to be unfavourable. Most chicken were of mongrel stock and were prone to poultry diseases.

Forestry, fishing and silk are a minor source of income. Silk is a declining industry while forestry and fishing hold great promise for future development.

The extensive forests that existed in Lebanon early in history and constituted the area's most important natural resources, have been entirely depleted. Approximately 376,000 hectares of land area are adaptable for afforestation but only 76,000 are actually covered with forests. At present the demand for timber exceeds supply by over 60 per cent.[1]

Lebanon is not self sufficient in agricultural crops except for a surplus of fruits and vegetables. There is a shortage of wheat. The country used to have a customs union with Syria and at that time there was no necessity to import wheat from outside the union. Since the break of the customs union in 1950, however, it has been necessary to satisfy two thirds of the total cereal consumption by imports. Aside from wheat, Lebanon imports all its requirements of agricultural products which it cannot grow itself such as sugar, tea, rice, and most of its requirements for meat and butter.

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1. USOM/L, Annual Report, 1955, p. 22.

IV. INDUSTRY

The third largest income-generating sector in Lebanon, industry, contributes 13 per cent of the total national income. There are more than 1,861 industrial establishments with total capital exceeding LL 155 millions.[1] The total number of people engaged in industry is estimated to be about 11 per cent[2] of the working population as opposed to 50 per cent in agriculture.

The majority of industrial establishments are small with more than half of them employing less than nine persons.

Number of industrial establishments	1861
Employing 5 to 9 persons	1031
Employing 10 to 24 persons	581
Employing 25 to 49 persons	149
Employing 50 to 99 persons	60
Employing more than 100 persons	40

SOURCE: Industrial Census, Table 1, p. 7.

Light industries predominate in Lebanon. In Fact, food and textile industries between them generate 45 per cent of the income arising in manufacturing.[3] The other leading industries are non metallic minerals

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1. Industrial Census, 1955, Table 2, p. 8 - doesn't include establishments employing less than 5 persons.

2. Doxiadis Associates Report.

3. Badre, A.Y., "National Income Studies of Lebanon", Middle East Economic Papers, 1956, ERI AUB., p. 16.

(including cement), furniture, metal products, tobacco, and printing industries; and the chief handicrafts are carpentry, tailoring, shoe-making, knitting, basket-making and pottery.

Mining in Lebanon is insignificant, although lead, iron, and a few other metals have been found in the Lebanese mountains. Their quantities are too limited for extensive commercial exploitation. The only minerals produced are lime, ochre and bitumen. There is an abundance of building stone; and salt is extracted from the sea in small quantities.

Oil, a very important mineral of the Middle East, is not found in Lebanon, but the development of Middle East petroleum has had a considerable impact on the Lebanese economy. Three pipelines have their terminals in Lebanon; two lines of the Iraq Petroleum Company, running from the Iraqi oil fields to Tripoli, and the line connecting the Arabian oil fields on the Persian Gulf with Sidon. The country has two oil refineries, one in Tripoli and the other near Sidon. Lebanon is also benefiting from the location of the offices of oil companies in Beirut, Tripoli and Sidon. Royalties paid to the government by the oil companies for pipelines on Lebanese territory have been considerably increased in recent years.

The industrial sector has been handicapped by the fact that the trade sector has always been favored both by private investors and by the government. During World War II, however, this situation changed to a certain extent. Industries, especially those whose raw materials were available in Lebanon or the region, enjoyed exceptional protection and thus earned higher profits than previously.

Industries continued to expand during the years immediately after the war. The considerable war profits and accumulated reserves made it possible fo

industrialists to renew their inventories and establish new enterprises. The growth of industries experienced during the war also resulted in the government's change of attitude towards this sector. However, the government continued the protection measures which had been made for already existing manufacturing industries but did not provide greater protection for new industries established after the war. In order not to interfere with trade interests, the government has a dual policy of reducing tariffs on machinery and raw materials and providing a reasonable degree of tariff protection on goods produced in Lebanon. During the past few years industrial development continued to progress although at a relatively slower rate than during the first post war years.

Industrial development in Lebanon is favored by low cost of labor and low rate of taxes on profits in conjunction with a certain degree of tariff protection. The various development works in the making, such as river development for irrigation and power production, port expansion, improvement in the road system and the rise in efficiency and production quality will lead to a rise in income and most likely an increase in demand for industrial goods. However, if Lebanese industries are to benefit from the rise in demand their products have to be of sufficiently good quality to be able to effectively compete with imported industrial goods.

Handicaps to industrial development in Lebanon far outnumber factors favouring it. One hindrance to industrialization is the relative shortage of capital in the country. Even of greater consequence is the fact that the capital which is available is directed into sectors which are more profitable than industry, especially trade. Loan capital seeks enter-

prises which can effect repayment of debt in short terms. Thus medium and long term loans are almost prohibiting expansion.

Industries in Lebanon also have the disadvantage of having to depend heavily on imports for their raw materials and machinery, thus making their cost of production high. Another handicap is that there is a lack of experience of both management and labor. The ratio between skilled and unskilled workers is estimated to be 1 to 12 as against 1 to 7 or 8 in European countries.[1]

VI. ELECTRICAL POWER

Electrical Power is included in the industrial sector but it is of great importance to development in general - hence its mention separately. The largest power-producing plant is the Electricity Company of Beirut which used to produce 90 per cent of Lebanon's total current. Because this company became increasingly unable to meet the requirements of a growing market, provisional but effective links have been made between it and power lines of certain companies in North Lebanon.

Between the years 1950 and 1956, electrical power production more than doubled. It increased from 116 million kwh. to 245 million kwh. Average power generated annually per capita was 170 kwh. in 1956. Corresponding figures for some other countries are as follows:

1955-1956

Country	Per capita production of elec. energy in kwh.
Lebanon	170
Norway	6,700
U.S.A.	3,650
France	1,150
Greece	150
Iraq	90
Turkey	60
Syria	35
India	25

Source: Doxiadis, para. 105.

1. Doxiadis Associates Report, p. 14.

Electrical power generated is therefore still comparatively low and a number of villages are not supplied by current. The Litani River project, however, will provide more power than Lebanon will be able to use for a number of years, and at a much lower rate than charged at present.[1]

VII. TRADE

The trade sector is the largest income producer in the country, generating 29 per cent of the national income. The trade and finance sectors combined[2] produce 33 per cent of the national income and employ only approximately 14 per cent of the working population. The trade and finance sectors have the second highest per capita income of the working population.[3]

Trade has grown considerably since the war, largely due to Beirut's port which has a free zone area, the International Airport and, above all, to the free currency exchange market.[4] The total net income arising in the trade sector in 1950 amounted to LL. 300 million. Trade transactions include both internal and external trade.

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1. Sayigh, Y.A., op. cit., p. 21.

2. The two sectors can be considered as one since the financial sector is almost an adjunct of the trade sector.

3. The Government sector has the highest annual income per worker (see table 1).

4. These causes explain post-war developments. Trade, however, has always been an important Lebanon activity for social and economic reasons.

Import trade yields the largest share of total trade income, amounting to a little over 40 per cent, while export trade accounts for less than 2 per cent of the total trade income.[1] There is a large dependence on transit trade and the two most important single items in transit trade as well as total trade are gold and petroleum. Most of the transit and export trade apart from oil is destined for the Fertile Crescent countries, the Persian Gulf area and countries further East.

The import, transit and entrepot trade, which represent goods of foreign origin, account for 65 per cent of the total trade income or 19 per cent of the total national income.[2] Thus the country depends heavily on foreign suppliers, the freedom of the seas and on the markets of those countries for which transit and entrepot goods are destined.

Factor payments distribution in the trade sector is such that profits constitute approximately 86 per cent of the total payments, while wages amount to 10 per cent and rent to 4 per cent.[3] The exceptionally high proportion of profit income is not encountered in any other sector.

In spite of the fact that the balance of trade of the country shows a regular deficit, the balance of payments is positive and has had increasing surpluses since 1951. Exact figures are not available for years preceding 1951, as Lebanon had at that time a customs union with Syria and the relative statistical figures included both countries without differentiation. For subsequent years, the figures are as follows:

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1. Badre, A.Y., "The National Income of Lebanon", op.cit.,
2. Ibid.
3. Ibid.

Year	Trade Deficit	Balance of Payments Surplus
1951	LL 259.5 million	LL 18.9 million
1952	290.4	26.3
1953	275.5	32.9
1954	370.4	57.0

The items on the credit side of the balance of payments which not only outweigh the trade deficit but also cause a constant surplus, are the following: transportation and insurance, profits from transit trade, investment income, tourism, capital movements and emigrants' remittances.[1]

Few of these foreign exchange-earning services are permanent or very reliable, but there is a certain safety which arises from their number and variety. The remittances from Lebanese emigrants to their relations have been for many years a regular source of foreign receipts which is continuing because of the new emigrants who leave the country at the rate of a few thousand a year.[2] It is believed that there are as many people of Lebanese origin abroad as there are in the country itself. Capital imports, on the other hand, are of a more precarious nature. Prior to 1956 they were mostly from Egypt and Saudi Arabia and were of a transient nature. Recently, however, Egyptian capital imports have decreased considerably due to the restrictions imposed on capital exports in Egypt. This capital will probably be either repatriated or re-

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1. Klat, P.J., "Review of Lebanon's Economy", (typescript for the IMF), Beirut, 1953.
2. This was discussed earlier in the first section of this chapter.

exported to Europe or America rather than permanently invested in Lebanon. Donations from abroad such as those of Point IV, United Nations Relief and Works Agency expenditures, education endowments and oil company royalties, all constitute a contribution of a relatively permanent nature to the balance of payments surplus.

One of the best established sources of revenue in Lebanon is the tourist trade. The country's beautiful scenery, favourable climatic conditions, and historical sites, attract tourists all the year round. In 1954 tourists numbered 450,000.[1]

The trade sector is considerably developed. There are several points, however, where improvements are needed. One is that traders complain that Beirut port dues are too high and port formalities long and costly. The transportation and communications facilities are inadequate for the present volume of trade. The above are partly the cause for Jordan's developing the Aqaba Port in order to decrease dependence on the Beirut port.

VIII. TRANSPORTATION AND COMMUNICATION

There are two railways in Lebanon, one running between Beirut and Damascus and the other connecting Beirut and Tripoli. The first was built in the late nineteenth century and is extremely slow and outmoded, and the second is part of the Tripoli Haifa line which had to be discontinued just before the termination of the Mandate in Palestine. Since the

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1. A person is considered a tourist if his sejourn in the country exceeds 72 hours.

railway system is poor, Lebanon depends heavily on road transport.

There is an abundance of cars and trucks in the country in relation to road capacity. The main roads are considered adequate although they are in many instances too winding and also not strong enough to support traffic or heavy vehicles. The secondary and feeder roads are inadequate.

The International Airport of Beirut has resulted in considerable progress in air traffic. The movement of planes and passengers in the Beirut airport is the largest in the Middle East.[1]

The telegraph system in Lebanon is adequate and the telephone system has been considerably improved since 1954 in view of the installation in Beirut of automatic dial telephones.

It is of importance to bring to the attention of the reader the fact that a few sectors have been left out in the above discussion since they are not important for our analysis. The sectors discussed have been chosen due to their importance in the Lebanese economy in general or because they are the ones with which Point IV work is most concerned.

With the termination of a broad survey of the Lebanese economy, we can now consider the operations of the Point IV Program and its effect on the Lebanese economy.

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1. Sayigh, Yusif, A., op.cit.,

CHAPTER THREE

THE ORGANIZATION OF POINT IV IN LEBANON

I. Introduction

Before describing and analyzing the various activities of the Point IV Program in Lebanon, it is necessary to understand how the various projects are initiated and implemented by both the Mission and the Lebanese government. This chapter contains three sections. The first section deals with the agreements entered into by Lebanon and the United States before embarking on the Program in this country. The second section deals with the organization of the Mission in Lebanon, and the third section is concerned with technical and legal formalities involved in initiating and implementing technical assistance projects. The Appendix to this chapter contains the text of the Technical Cooperation Agreement between the United States and Lebanon.

II. POINT IV LEGISLATION IN LEBANON

The types of agreements are signed by the United States and each country participating in the Point IV Program. One is the "umbrella" or general type, and the other is the program or project type. The former includes a definition of the purposes of the program, commitments to be made by both the United States and the participating governments, and a statement that both governments will give full publicity to the program in the participating country. The latter type of agreement includes specific provisions on personnel, matters of the budget, and the duration of a particular program. It does not necessarily have to be a general agreement.

A. Technical Cooperation Agreement

The general agreement between Lebanon and the United States, called the Technical Cooperation Agreement, was signed in Beirut on May 29, 1951, and entered into force on December 13, 1951, when it was ratified by the Lebanese Parliament and as such took the form of a binding treaty.

The purpose of the treaty is stated thus:

> "The government of the United States of America and the government of Lebanon undertake to cooperate with each other in the interchange of technical knowledge and skills and related technical activities designed to contribute to the balanced and integrated development of the economic resources and productive capacities of Lebanon." 1

Both governments agreed, as in all other countries participating in the Point IV Program, to contribute to carrying out the above objective. The United States undertakes to furnish the technical experts, pay their salaries, allowances and their transport costs to Lebanon and back to the United States. The United States government also undertakes to send candidates nominated by the Lebanese Government for training either to the United States or elsewhere abroad. The United States is to supply, to an extent to be agreed upon, equipment and material, purchasable with dollars, necessary for the mission's experts' work.

The Lebanese Government agreed to provide offices, equipment and supplies, secretarial help, interpreters, translators and other similar facilities needed for the implementation of the program. It is also to pay the transportation and communication expenses of the experts within

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1. Technical Cooperation Agreement between the United States of America and Lebanon, May 29, 1951, Article 1.

Lebanon, and to assign technicians and other Lebanese staff necessary to work with the United States technicians.[1]

The treaty further provides that the Lebanese Government is to coordinate the Point IV Program with other technical assistance programs within the country and to exchange technical knowledge and skill with other "friendly" countries which may have similar programs.[2]

The American Point IV employees and the accompanying members of their families are exempted from income and social security taxes with respect to salaries paid to them by the U.S. Government and to any other non Lebanese income upon which they have to pay taxes to their government. They are also exempted from customs and import duties on "personal, household, and professional effects and supplies" when they certify that these are for their personal use and consumption.[3]

As stipulated in the act for International Development, it is also agreed upon by the two governments to give full publicity to the Point IV Program in Lebanon and to make a progress report once a year.

According to Article 7, subsidiary agreements are to be made for carrying out particular projects. This agreement and the Point IV Program in Lebanon can be terminated three months after either party announces, in writing, its desire to do so. The agreement can be amended on consultation and acceptance of both parties concerned.

B. The Program Agreement

The second type of agreement between the United States and Lebanon, the program or project type, was signed in Beirut in 1952. The Program

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1. Ibid., Article III.
2. Ibid., Article IV.
3. Ibid., Article V.

Agreement states the following to be the fields in which the two governments are to undertake technical cooperation programs: Water and other natural resources, agriculture, forestry, fisheries, health, education, industry, tourism, communications, social affairs, training of Lebanese technicians and other fields as may be agreed upon.

The Agreement touches upon the organization and administration of the Point IV Program in Lebanon. A staff of U.S. technicians is to be supplied for every field of activity, each group being headed by a chief, appointed by TCA and acceptable to the Lebanese Government.[1]

Studies and surveys are to be made of the needs and possibilities for improvement in the above-mentioned fields of activity and written project agreements are to be made before a project in any of the fields of activity can be implemented. Each project agreement is to include a description of the project, its location, results to be obtained, persons or agencies to implement it, portions of funds provided for the project, provisions governing expenditures of funds, provisions concerning the employment of technicians and officials for this project by the Lebanese government after its completion.

The Program Agreement appropriated both United States and Lebanese funds for the first fiscal year of the program, and divided the funds among the different fields of activity. These funds did not have to be spent during the fiscal year of either government and any balance could be

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1. Program Agreement between the U.S. and the Lebanese Government, Beirut, 1952, Article II.

used any time during the duration of Point IV work in Lebanon. When specific projects were undertaken, they were financed out of the funds appropriated to the field of activity to which the project belonged. This method of financing is no longer used and all funds for specific undertakings are allocated solely through project agreements without having appropriations made for wide fields of activity.

The United States appropriations amounted to $3.1 million and the Lebanese contribution was equal to approximately $370 thousand. The combined funds were divided among the different fields of activity in the following manner: TABLE 2

Field of Activity	U.S. Allotments $ (000)	Lebanese Allotments $ (000)
Natural Resources, Water and Rural Improvement	1,500	63
Agriculture and Forestry	640	57
Public Health	300	103
Education	200	117
Industry and Tourism	100	21
Social Affairs	100	9
Communication	25	-
Training in all Fields	235	-
TOTAL	3,100	370

SOURCE: Program Agreement, Article VI.

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1. Interview with Mr. F. Lapinski, Assistant Program Officer, USOM/L.

The funds were to be used on projects after a project agreement was signed between the Director and the Lebanese Ministry having jurisdiction over the project concerned.

III. THE ORGANIZATION OF POINT IV IN LEBANON

The Point IV Program in Lebanon is undertaken by the United States Operation Mission in cooperation with the Lebanese Government. The Mission consists of the Administrative Office and five divisions, i.e. Agriculture, Natural Resources, Education, Industry and Mining and Health and Sanitation.

The Head of the Mission is the Country Director who is in charge of coordinating various fields of activity into an effective overall program and of reconciling this program with available United States and Lebanese funds. He has to choose projects best suited for developing the country, after having first received advice and counsel from the Lebanese Government. He also prepares, together with his staff, requests for appropriations and reports to be sent to the International Cooperation Administration in Washington.[2]

The Country Director is assisted in coordinating the various projects of the program by the Program Officer, who replaces the Director when the latter is away. The Director is in charge of reviewing the program according to United States Point IV Legislation and to current United States foreign policy.

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1. Interview with Mr. F. Lapinski, Assistant Program Officer, USOM/L.

A staff of United States technicians is provided for every Division which is headed by a Division Chief. The technicians are assigned to different phases of the program. They ascertain needs and suggest improvements, demonstrate techniques, and prepare cost estimates for project proposals. Each of the five Division Chiefs is the principal advisor to the Country Director on his particular field of activity. The Division Chiefs work closely together with the Lebanese Government Ministries. Each Division sends Lebanese trainees or "participants" abroad to study subjects related to the projects of that particular Division.

An important feature of the Point IV Program is a close and continuous cooperation between the Mission and the Lebanese Government. A means of facilitating this cooperation and of maintaining close liaison, is the system of counterparts. For each level of the Mission's project administration there is an appropriate counterpart within the Lebanese Government. The Country Director is the counterpart of all the Lebanese Ministers, each Division Chief is the Counterpart of the Director General of the appropriate Ministry, and the American technicians have their counterparts in Lebanese technicians. The latter, unlike other counterparts, literally work together in the field. However, in practice, not every American technician has a Lebanese counterpart. Often the Lebanese Government does not have a qualified man to act as a counterpart or cannot spare such an employee, since it is the Government who pays his salary while he is working as a counterpart. Sometimes counterparts are sent abroad as participants for training in their particular field of activity.

To further facilitate the joint working of the Lebanese Government and the Mission on various Point IV projects, there is a Liaison Officer who is a Lebanese receiving half of his pay from the Lebanese Government and the other half from the United States Government. His task is to reconcile the Mission and the Lebanese Government on any differences that they may have in objectives and policies, and to try to settle problems arising from these disagreements.[1]

The Liaison Officer is the ex-officio secretary of the Liaison Committee, set up by the Lebanese Government Economic Development Planning Board. The Committee includes representatives of all the organizations and governments giving economic and technical assistance to Lebanon. The purpose of the committee is to attempt a reconciliation of the various objectives of these groups. But the committee can only discuss problems and make recommendations as it has no jurisdictional power. The committee has not met since the Summer of 1955.[2]

IV. PROPOSAL AND APPROVAL PROCEDURES FOR TECHNICAL ASSISTANCE PROJECTS

Three types of assistance are given by the Point IV Program. One is Technical Assistance which is designed to assist directly in the development or accomplishment of specific undertakings or enterprises, and is carried out through project agreements. This is the type of aid which predominates in Lebanon. The other two types are: economic assistance, which consists of giving goods to the participating country; and

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1. Interview with Mr. N. Tabet, Liaison Officer, USOM/L.

2. Ibid.

special assistance given in times of emergency, i.e. earthquakes, floods, war, etc.

Technical Assistance projects until 1955 had to go through three administrative phases: program, project, and implementation.

In the program phase, the Mission, in cooperation with the Lebanese Government, prepared plans for a given period of time for each field of activity. These plans included very general information on specific projects of each Division. This phase ended with the approval of the program by Foreign Operations Administration in Washington and with the allotment of necessary funds of each Division for the approved program.

The Program phase was followed by a project agreement for a specific undertaking by one of the Division, and funds were obligated for it out of the total allotment for the Division concerned which had been made under a Program Agreement.

In 1955, the program agreement was done away with and project agreements replaced it. It was felt that the program agreements were not specific enough. Before 1955, the project agreements promised the use of funds which had already been allocated. Now, however, obligations are made exclusively through project agreements.

In the project agreement which has to be signed by both the Mission and the Lebanese Government, the project is described in detail. The funds to be provided for the undertaking by both the Mission and the Lebanese Government are indicated in the agreement. When the agreement is signed by both parties it is sent to Washington to be reviewed by ICA.

On approval of the project, ICA makes the fund obligations.

In theory, the Lebanese Government proposes these projects. Usually, however, the project originates in the Mission with the United States technicians who, while working in the field, get ideas for further projects in their field of activity. After studying the advisability of the proposed project, the Mission suggests to the Government to request the Mission to help them in undertaking the project.

The implementation of a project often includes the financing of several factors such as U.S. technicians, participants, commodities, contract services, Lebanese employees, etc. The project agreements provide for all these factors except the first two for which United States funds have to be approved separately. The fund obligations made under the project agreements have to be spent during the fiscal year in which a project agreement was signed and the two following fiscal years, while fund obligations for U.S. technicians and Lebanese participants have to be spent during the year of signature and the following fiscal year.

The above provisions have been applied only since 1954. From fiscal years 1952 to 1954, a carry-over provision was passed providing for the transfer of funds from one fiscal year to the next. Consequently during the fiscal year of 1953, there were no funds obligated to projects as a result of the large carry-over from the previous year.[1]

During the implementation phase of a project, the approved projects are actually carried out. This phase ends with the final evaluation and auditing of the completed project.

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1. Ibid.

APPENDIX TO CHAPTER THREE

GENERAL AGREEMENT FOR TECHNICAL COOPERATION UNDER POINT IV PROGRAM BETWEEN THE UNITED STATES OF AMERICA AND LEBANON

The Government of the United States of America on the one part, and

The Government of Lebanon
on the other,

Desiring to cooperate in the interchange of technical knowledge and skills with a view to the attainment of higher standards of economic development and social welfare and the promotion of international understanding and goodwill,

Having both accepted resolution No. 304 (IV) adopted by the General Assembly of the United Nations on November 15, 1949, approving the Economic and Social Council Resolution No. 222 (IX) on technical assistance for economic development and the guiding principles for rendering such assistance,

Have agreed as follows:

ARTICLE 1

The Government of the United States of America and the Government of Lebanon undertake to cooperate with each other in the interchange of technical knowledge and skills and in related technical activities designed to contribute to the balanced and integrated development of the economic resources and productive capacities of Lebanon.

ARTICLE 2

The Government of the United States of America agrees to:

A - Furnish, to an extent subsequently to be agreed upon, services of technical experts and pay their salaries and allowances as well as their transport costs from and to the United States.

B - Provide for training in the United States or elsewhere of Lebanese nominated by the Lebanese Government under arrangements covering the program of training and the payment of expenses as may be agreed upon the two Governments in individual cases.

C - Supply, to an extent subsequently to be agreed upon, equipment and materials necessary to the effectiveness of the experts' work but purchasable only with United States dollars.

ARTICLE 3

The Government of Lebanon, in order to bear a fair share of the cost of the program, agrees to:

A - Provide adequate office facilities, office equipment and supplies, secretarial interpreter-translator and related assistance necessary to the successful implementation of the projects.

B - Pay costs of land, buildings, improvements, local materials and labor necessary to the effectiveness of the experts' work.

C - Pay transport, communication costs and such other expenses of American experts within Lebanon as may be agreed upon by the two Governments in particular circumstances.

D - Assign appropriate technicians and whatever other Lebanese staff is justified by the project, to work with United States technicians.

E - Pay such costs as may be agreed upon by the two Governments in connection with training provided for in Article 2 (B).

ARTICLE 4

The Government of Lebanon will endeavor to coordinate this program with other related technical cooperation programs in Lebanon. It will further facilitate cooperation in the mutual exchange of technical knowledge and skills with other friendly nations which may have technical cooperation programs similar to that carried on under this agreement.

ARTICLE 5

All employees of the Government of the United States of America assigned to duties in Lebanon under this Agreement and accompanying members of their families shall be exempt from: (1) Income and social security taxes with respect to salaries and emoluments paid to them by the Government of the United States of America and to any non-Lebanese

income upon which they are obliged to pay income or social security taxes to the Government of the United States of America. (2) Customs and import duties on personal, household and professional effects and supplies including one personal automobile, on certificate being furnished, by such employees, to the effect that these effects and supplies are for the personal use and consumption of such employees and members of their families.

Duty is liable to be paid in respect of any such article imported without payment of duty and sold or disposed of within three years, but there shall be no liability if such articles are reexported within the period. Any materials and equipment introduced into Lebanon by the Government of the United States of America pursuant to this Agreement shall be exempt from taxes, customs and import duties.

ARTICLE 6

The Governments of the United States of America and of Lebanon will endeavor to give full publicity to the objectives and progress of the technical cooperation programs carried on under this Agreement. They will make public in their respective countries, not less frequently than once a year, periodic reports on the technical cooperation programs carried on pursuant to this Agreement. Such reports shall include information as to the use of funds, materials, equipment and services. They will mutually exchange information regarding other technical assistance programs which have been or are being requested of other countries or of international organizations by either party to this Agreement.

ARTICLE 7

For carrying out particular projects under this Agreement, subsidiary written arrangements or understandings may be agreed upon by the duly designated representatives of Lebanon and of the Technical Cooperation Administration of the United States of America, or by other persons, agencies, or organizations designated by the Governments.

ARTICLE 8

1 - This Agreement shall enter into force on the day on which it is duly ratified by the Government of Lebanon. It shall remain in force until three months after either Government shall have given notice in writing to the other of intention to terminate the Agreement.

2 - If, during the life of this Agreement, either Government should consider that there should be an amendment thereof, it shall so notify the other Government in writing and the two Governments will thereupon consult with a view to agreeing upon the amendment.

3 - Subsidiary arrangements or understandings which may be agreed upon may remain in force beyond any termination of this Agreement, in accordance with such arrangements as the two Governments may make.

4 - This Agreement is complementary to and does not supersede existing agreements between the two Governments except insofar as other agreements are inconsistent herewith.

Done in Beirut on the twenty ninth day of May 1951 in duplicate in Arabic and English Languages, both texts being equally authentic.

For the Government of the United States of America

John H. Bruins

For the Government of Lebanon

H. Oueini

CHAPTER FOUR

POINT IV OPERATIONS IN LEBANON: AGRICULTURE DIVISION

I. Introduction

The following two chapters describe the various projects which have been jointly undertaken by the Mission and the Lebanese Government under the Point IV Program. Chapter IV is devoted to the projects undertaken by the Agriculture Division and Chapter V relates the work being done by the remaining four divisions, namely the Natural Resources, Education, Industry and Mining, and Health and Sanitation Divisions. This chapter also includes a brief section on the Mission's Audio-Visual Department and the recently established Labor Division.

Technical assistance in agriculture began on an informal basis in 1951, on the arrival in Lebanon of various USOM/L technicians who worked together with their counterparts where available. Each technician in his field planned projects which were later discussed and amended by the USOM/L and the Ministry of Agriculture to form the various project agreements. The Agricultural Division was the first to have all its project agreements signed all at the same time, namely on January 12, 1952.[1] This move influenced the approval of cooperative agreements for other divisions.

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1. McKee, C., "Report of the Chief Agriculturalist for 1955", Agriculture Division, USOM/L, 1955, p. 1, (unpublished).

The general objective of the agricultural program is to help the Lebanese to increase and improve the production of agricultural produce for the purpose of ultimately raising the standard of living in Lebanon. Projects undertaken by the Agriculture Division can be divided into two functional groups: One concerned with improving the quality and increasing the production of Lebanon's principal agricultural commodities such as wheat, citrus fruits, apples, bananas, vegetables, livestock, poultry and forestry; and the other with the reduction of food losses due to animal and plant diseases, lack of insecticidis, and inadequate marketing techniques. The latter group consists of the veterinary, entomology, and marketing projects, while the former consists of the agronomy, horticulture, animal resources, poultry, forestry, irrigation, and farm machinery projects. An agricultural cooperative project, which cannot be classified in either group, is also being undertaken by the Division. At least one United States technician or expert is in charge of each project, and in most cases Lebanese technicians help in its implementation. The extension project serves to coordinate the above agricultural projects.

The following table shows the extent of progress made in the above projects as of April 1956.

TABLE 3

Project	Date of Beginning of Project	Date of Completion of Project
GROUP I		
Agronomy	1952	Incomplete
Horticulture	1954	Incomplete
Animal Husbandry	1952	Incomplete
Poultry	1952	Handed over to Ministry in 1955
Irrigation	NA	Incomplete
Farm Machinery	NA	Incomplete
Forestry	NA	Incomplete

GROUP II

Veterinary	1953	Incomplete
Entomology	1954	Incomplete
Marketing	1952	Discontinued in July 1956

OTHER

Agriculture Extension	1952	
Agricultural Cooperative	1952	Incomplete
Special Economic Assistance for Agriculture	1954	

II. AGRICULTURAL EXTENSION PROJECT

The general objective of the agricultural extension project is to train a number of Lebanese farmers to improve their agricultural practices without a great deal of capital outlay on their part, and to be able to teach their fellow farmers to do the same. One of the main functions of the projects is the gathering of information obtained through research made by various members of the Agriculture Division and disseminating the results among Lebanese farmers.

The project is implemented through radio broadcasts concerning agricultural problems and occasionally given on the Beirut Broadcasting Station, extension centers located throughout the country, experimental farms, courses, and training of counterparts and participants.

The implementation of the extension project is facilitated by the close cooperation of the Lebanese Agriculture Ministry's Extension Division, which was established after the arrival of American technicians. It has a Director and two assistants who are in close contact with the extension and other agricultural technicians of the Point IV Program.

Five officials from the Ministry were trained in the United States in 1953,[1] and nineteen more will be trained in agricultural extension.[2]

The Lebanese Ministry agreed to build 19 extension centers located throughout Lebanon in such a manner as to serve as many farming areas as possible.[3] In spite of slow progress, all the centers were finished in 1956, and a veterinarian and agriculturalist were appointed to serve at each center. From these points, expansion work is done throughout the country. The centers are equipped with materials, which can be used for demonstration, including audio-visual equipment.

In addition to the extension centers there are three experimental farms which play a major role in the extension project. One is the Terbol farm in the Bekaa Valley, the other is in El Aabde near Tripoli and the third is in Tyre. Besides being used for experimental work with various crops to determine their suitability to Lebanese soil and climate, the farms serve as demonstration centers of modern agricultural methods.

The Terbol farm, for example, has a 125 acre agricultural and livestock demonstration farm and a 250 acre afforestation tract with a demonstration forest nursery.[4] There is a modern dairy barn where 22

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1. USOM/L, Technical Cooperation Assistance Program 1953 Progress Report, p. 28.
2. Interview with Mr. Lasater, Chief of the Agricultural Division, USOM/L.
3. Lasater & Delzell, "Report on the Agricultural Extension Project for 1955", Agricultural Division, USOM/L, 1953, p. 3, (unpublished).
4. Burns, Norman, "Technical Assistance in the Middle East", address made at the Conference on Tension in the Middle East, August 26-29, 1957.

pure bred bulls and 30 heifers from Holland are kept. Point IV technicians help visiting Lebanese farmers plan the building of new livestock barns or the remodelling of old ones. There is also a poultry unit containing various breeds of imported chicken and equipped with feeders, waterers and incubators.

The farms are equipped with modern machinery, such as tractors, rippers, and caterpillars, some of which had been originally imported by the Mission for their use on a specific agricultural project. Besides being utilized on the farms, the machines serve for demonstration purposes and for training of Lebanese employees. Point IV machinery technicians give advice to individual groups who ask for help in choosing equipment needed for their farms. In 1955, a two-week course on machinery was given in Tel El Amara in cooperation with the Ministry and the Mission. A total of 68 students attended the course; these included 46 Ministry and USOM/L employees.

Progress in the Extension Service Project has been hampered by procurement delays, lack of trained government personnel, delay of arrival of American technicians, and the Ministry's failure until December 1953, to designate local extension centers and to appoint agents.[1] A problem also arose when the Terbol station was handed over entirely to the Ministry of Agriculture. The farm has many employees but not enough qualified technicians to carry on intensive experimental work desired

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1. Lasater & Delzell, "Report on the Agricultural Extension Project for 1955", Agricultural Division, USOM/L, 1955, p. 3, (unpublished).

by the Lebanese government.[1]

The extension project is of primary importance to the successful implementation of the Mission's Agricultural Program. An efficient extension service is the best practical manner by which Lebanese farmers can benefit from Point IV agricultural activities. Without proper dissemination, the information gathered through tests and experiments would be of little benefit to the country.

III. THE FIRST GROUP OF PROJECTS

Projects in the first group which are concerned with improving the production and increasing the quantity of the country's main agricultural products, deal with cereals, potatoes, fruits, vegetables, animal husbandry, poultry and forestry.

One of the activities of this group of projects is experimenting with crops by introducing and evaluating new crops in comparison with those grown locally. The more promising ones are then grown in extensive fields on any one of the three experimental farms.[2] Through such tests, Point IV agronomists found that twice the yield of ear corn is produced by adapted American hybrids as compared to Lebanese varieties, and that a new variety of potatoes, callet Bintze, produces the highest yield among all seed potatoes which had been used in an experiment, while the lowest

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1. Burns, Norman, "Technical Assistance in the Middle East", address made at the Conference on Tensions in the Middle East, August 26-29, 1957.

2. USOM/L, Technical Cooperation Assistance Program, 1955 Progress Report, p. 23.

producer in the planting test was the one most extensively used in Lebanon.[1] Trial crops of Sudan grass, American sorghum, soybeans, castor beans and various American and European variables of sugar beets, were also planted.[2]

Similar experiments were made with fruits and vegetables. The Mission's horticulturalists have introduced new types of seeds for melons, tomatoes, carrots, beans, and onions. Various vegetables and 93 United States fruit varieties, one third of which are sub-tropical, were tested on the experimental farms as to their adaptability to Lebanese agricultural conditions and whether they show commercial promise.[3]

In certain cases where the Mission's experts have found one type of seed more adaptable to Lebanese soil and climate than the type prevalently used, the better quality seeds have been distributed among farmers by the Lebanese Government and the Mission. In 1955, about 20 metric tons of seeds of two kinds of wheat were distributed by the Mission.[4] Because the demand for these seeds considerably exceeded the Mission's provisions, the Ministry of Agriculture followed by distributing 850 metric tons of seeds in exchange for the farmers' old ones. The Mission also distributed

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1. Ibid.

2. Ibid.

3. Millet, J.C., "Report on the Horticulture Project for 1955", Agricultural Division, USOM/L, 1956, p. 2, (unpublished).

4. USOM/L Technical Cooperation Assistance Program, 1955, Progress Report, p. 21.

potatoes and vegetable seeds.

In addition to the above tests, experiments have also been made as to the best type of fertilizers to be used on certain crops and studies have been made of the chief fruits grown in Lebanon in relation to pruning, diseases, and spacing of trees. Land use surveys were made on several farms at the request of land owners, and also on government property.

Experiments with crops have been delayed due to the fact that construction of the seed and soil laboratory, one of the major undertakings of the agronomy project, has not been completed, while the laboratory equipment provided by ICA has been in the country for months.[1]

The Animal Husbandry and Poultry projects are also a part of the first group. One of the activities of both is the importation of better-quality animals. As mentioned above, chicken were imported for the poultry unit at Terbol Farm. In 1952, the Animal Husbandry Adviser imported 22 pure bred bulls and 30 pure bred heifers from Holland.[2] The heifers are left at Terbol Farm, while most of the bulls are used for artificial breeding or are made available for natural services in villages. At present 48 pure bred cows are kept at Terbol Farm. In 1954, 64 holstein, and in the following year 130 pure bred cattle were privately imported from Holland and France. Most of the farmers depend on the

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1. USOM/L, Technical Cooperation Assistance Program 1955 Progress Report, p. 21.

2. Cannon, C.Y., "Report on Animal Husbandry Phase", Agriculture Division (unpublished report), 1955.

bulls in the artificial insemination program for service to their cows.[1]

There are four artificial insemination laboratories established by the Mission and the Ministry, and located in Zahle, Tripoli, Sidon, and Sin El Feel, which is a village near Beirut. The Mission's technician has trained 6 Lebanese in this field and one participant was sent to the United States for training.[2] On his return he will be in charge of the laboratory in Sin El Feel and will train other Lebanese in the field. At the end of 1955, approximately 150 cows were being bred artificially each month as compared with 15 cows a month at the beginning of the year.[3]

The Mission also undertook to improve the cattle and poultry feed. Since livestock are fed on forage crops, a forage nursery was built to determine the availability of better forage crops in Lebanon. As for poultry, the Mission's technicians found through experimentation that a diet using imported commercially-prepared concentrates mixed with locally-produced grain, was the most suitable for poultry feed in Lebanon. To encourage such a commercial feed compounding plant in the country, the Mission prepared a pamphlet on the subject. One such plant was privately constructed.[4] A feed mixer which uses local materials has also been developed and the Mission has constructed models for distribution.

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1. USOM/L, Technical Cooperation Assistance Program, 1953 Progress Report, p. 14.

2. Ibid.

The imported cattle on Terbol Farm, when scientifically fed produced eight times as much milk as cows of the Lebanese farmers. Imported chicken laid more and larger eggs than did local chicken.[1] Large eggs sold in Beirut, whether from Terbol or not, came to be known as 'Point IV eggs'.

The objective of the first group of projects also includes increasing the timber supply in Lebanon. Although Lebanon at one time used to have abundant forests, at present demand for timber exceeds supply by approximately 60 per cent.[2] The major part of the Forestry project was financed and supervised by the Lebanese, but some technical assistance was given by the Mission's technicians. Two modern demonstration forest nurseries with over-head systems were built, one at Terbol farm and the other near Beirut. A 4,500 dunum plot of newly planted trees was fenced in near the Syrian border,[3] and Cedars were planted and also fenced in.

An irrigation project has also been undertaken in this group. While the Natural Resources Division studies the possibilities of utilizing surface streams of Lebanon to the fullest, the Agriculture Division

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1. Burns, Norman, "Technical Assistance in the Middle East", address made at the Conference on Tensions in the Middle East.

2. Op.cit., p. 22.

3. Anderson, C.A. 'Report on Forestry and Range Management' - Project for 1955, Agriculture Division, USOM/L, p. 4 (unpublished).

copes with the irrigation and other water distribution problems farmers will face when the new supply of water becomes available. Thus 175 dunums of land on the Tyre farm were levelled and irrigated by use of concrete pipes, open ditch distribution system, and an engine and pump were installed in Terbol farm to provide Terbol village with domestic water. The Mission is also planning to deal with the problem of drainage.

IV. THE SECOND GROUP OF PROJECTS

As mentioned above, the second group of agricultural projects is concerned with the reduction of food losses due to diseases of animals and plants, insects, and inadequate marketing techniques. The group includes entomology, veterinary and marketing projects. The last was discontinued in 1956.

The Mission's entomologists in cooperation with Lebanese agriculturalists, study insects which damage crops and stored grains, and attempt to find the proper insecticides. They have found an effective insecticides to be used with barley and wheat when infested with flea beetles which are common throughout the Bekaa Valley.[1] Also four new insecticides for fruit and bean insects have been introduced and are now being stocked by local pesticide distributors.[2] Putting insecticides in the soil itself was introduced in the country for exterminating pests during their subterranean stage of development. The advantage of the latter type of treatment is that no special equipment is required and protection

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1. Millet, E.R., 'Report on Entomology', Agriculture Division, USOM/L, 1952, p. 2 (unpublished).
2. Ibid., p. 1.

lasts for two years or more.

The usage of insecticides is being encouraged in the country by the agriculturalists stationed at the extension centers. Discussions among technicians, farmers, and representatives of commercial operators and suppliers of pest control equipment and insecticides have also helped spread the use of insecticides throughout Lebanon.

Veterinarians have attempted to control disease among poultry and cattle. Although at the outset of the Veterinary project there were no livestock and poultry statistics, the Mission's technicians found through verbal reports that poultry diseases constituted a major problem in Lebanon; that anthrax is a yearly threat to sheep and goats; that the veterinary division, established 18 years ago in the Ministry of Agriculture was inadequate to serve the needs of the country; and that very few farmers used the services of veterinarians.[1]

The Veterinary project has supplied sufficient vaccine for control of the major poultry diseases. It has also provided vaccines for livestock against cattle and sheep diseases. The veterinarians at the extension centers use and encourage the use of vaccines and medecines. People are becoming more aware of the veterinary services available. Thus in 1955, four times as many requests for the services were made as during the previous years.[2]

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1. Boyd, A.J. 'Report on Veterinary Project for 1955', Agriculture Division, USOM/L.

2. USOM/L, Technical Cooperation Assistance Program 1953 Progress Report, p. 22.

The Lebanese Government has also shown greater interest in the veterinary services, and in 1953-54 it provided the major part of the project's funds, unlike the previous year.

	GOL	USOM/L
1952-53	LL 6,000	$55,895
1954	LL58,000	28,000

The third project in this group was aimed at decreasing wastage of agricultural products, especially exports, due to inadequate marketing conditions. To demonstrate modern and efficient marketing methods, leaflets and motion picture films on marketing were produced and translated into Arabic. In 1953, as a result of the marketing technician's trip to Trieste with a cargo of citrus fruits, a superior quality of boxes was used, since he had found that a tremendous amount of loss had been suffered due to the use of improper packing boxes. A similar trip was made to Cyprus with a cargo of bananas, resulting in the introduction of spraying in order to prevent decay.

In 1951, an onion and potato grading machine was purchased by the Mission for use in demonstration work in the Bekaa. This has since resulted in the private purchase of about six onion grading machines.

As a result of the advice of the Mission's marketing expert, three citrus exporters each bought and installed an improved unit packing equipment for citrus fruits, a leading apple grower purchased apple grading equipment, and a vegetable exporter bought a waxing machine.[1]

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1. Bowman, V.V., 'Report on Agricultural Marketing Project for 1955', Agricultural Division, USOM/L, 1956, p. 3, (unpublished).

However, not all the undertakings of the marketing project were successful. In March 1955, citrus packing equipment of a value of $63,000 arrived in Beirut and because a warehouse which the Ministry had promised to build was not ready, the equipment was sent to St. Michel Warehouse. The plans for the warehouse had been made in 1953, but construction did not start until 1955. When the warehouse was being built, part of the structure collapsed and work was never resumed. This prevented the bringing about of one of the major objectives of the marketing project which is the demonstration of proper grading and packing of fruits.[1] Due to this factor, the project has been temporarily discontinued.

V. AGRICULTURAL CREDIT COOPERATIVE PROJECT

The primary aim of the Agricultural Cooperative Project is to encourage the organization of agricultural cooperatives and to provide credit to cooperative groups at a reasonable rate of interest.

The Mission has been giving loans to some of the few cooperative groups existing in Lebanon. Approximately $32,000 was advanced for equipment such as trucks, fruit grading machines, fruit pruning supplies, sprayers, bee supplies, and office supplies.[2] These loans enabled the organization of cooperatives by a number of groups which could not do so previously due to lack of available credit.

The Ministry distributed to cooperatives 600 tons of nitrogen fertilizer which was part of the amount of fertilizer provided by the

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1. USOM/L, 1953 Progress Report, p. 30.
2. USOM/L, 1955 Progress Report, p. 49.

Mission under a Special Economic Assistance Project. The cooperatives plan to sell the fertilizer at half price to members and use the funds thus obtained for loans, supplies and other needs of the cooperatives.

VI. SPECIAL ECONOMIC ASSISTANCE FOR AGRICULTURE

A special agreement on economic assistance for agriculture was signed on June 30, 1954. Under the Agreement the United States made available $2,500,000 for special economic assistance for the procurement of supplies, equipment, contractual services and other costs of agricultural projects. The Lebanese Government made available LL 1,688,485 for local currency costs of the projects and an additional LL 855,000 for 19 agricultural extension centers which, as mentioned previously, are to be used in the educational and demonstrational work needed to result in the maximum application of economic assistance in the rural areas.[1]

The project is divided into the following six sub projects: commercial fertilizers, farm machinery, grain storage, control of plant pests, protection of animal farm power, and extension service equipment and supplies. Some of the equipment and supplies which are to be purchased with these funds will be used for demonstrations such as insecticides for plant pests, and for the animal health centers to be constructed under the sub project of protection of animal farm power. The funds for the extension services will be used to equip the centers built by the government. Nearly half of the funds allocated to this project is obligated to the construction of a grain storage building.

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1. Project Agreement No. 68-13-001.

Up till January 31, 1956, $626,571 of the total U.S. funds of $2,500,000, allotted to the project, were spent. The following table shows how the total funds obligated were divided among the sub projects and the amount which has been actually spent:

TABLE 4

Status of Expenditures of the Special Economic Assistance for Agriculture as of January 1956

Sub Projects	Allotments	Expenditures
1. Commercial fertilizers	$ 250,000	$ 202,717
2. Farm Machinery	$ 712,000	$ 290,889
3. Grain Storage	1,000,000	-
4. Control of Plant Pests	$ 150,000	$ 76,969
5. Protection of Animal Farm Power	$ 188,000	$ 34,487
6. Extension Service equipment & Supplies	$ 200,000	$ 21,509
TOTAL	$ 2,500,000	$ 626,571

Source: Controller's Office, USOM/L, April, 1956.

VII. SUMMARY

In summary, the Mission's Agricultural Division has attempted to improve agriculture in Lebanon by demonstration, experimentation, training of Lebanese personnel, and importation of good breeds of cattle and poultry. The following section is a very brief recapitulation of the highlights of the Agricultural Program in Lebanon.

An important phase of the Agricultural Program is that of demonstrations and advice given to Lebanese farmers on agricultural problems.

The three experimental farms are used for demonstrating the latest and most adaptable agricultural methods and equipment for the country. The farms have a modern barn, a chicken house, a forest nursery and small irrigation works. Advice is given to interested farmers on any agricultural problems they may have. Agricultural information is also disseminated by the 19 extension centers, which are scattered throughout the country, and through occasional radio broadcasts.

The Mission's agricultural experts have made various experiments in the country with crops, fertilizers and insecticides. They have found types of seeds of corn, potatoes, and wheat, which are better adaptable to Lebanese soil and climate, and have a higher yield per hectare than do the original seeds used by farmers in the country. The Mission's entomologists have found effective insecticides for barley, wheat, fruit, and bean insects.

One of the objectives of the program has been to give training to the Lebanese in agriculture. This was done by associating United States technicians with Lebanese counterparts, by sending trainees (called participants) abroad and by courses given to Lebanese agriculturalists. Not all of the experts, however, had a counterpart, or if they did, these were often changed during the stay of one particular expert, and thus counterparts frequently did not receive enough training to be of much future use. Seven participants were sent abroad to study various agricultural problems, and a two-week course on agricultural machinery was given by the Mission with 68 students attending.

The quality of livestock and poultry, and their products, have been improved through the importation of better breeds of cattle and chicken, artificial insemination services provided through the Mission to farmers owning a good breed of cows. Better feeding and vaccines against various cattle and poultry diseases have been another important factor in improvement.

Certain difficulties arose in the course of the implementation of the agriculture program. On the part of the United States, there were procurement delays and the postponement of the arrival of United States technicians which caused several projects to be started much later than had been originally planned. However, other projects were hampered because of delays caused by the Lebanese Government, such as the building of the extension centers later than had been planned and the failure to construct the warehouse for citrus and packing equipment and the seed and soil laboratory.

The funds for agricultural projects were allocated in 1954 under the Special Agreement for Economic Assistance for Agriculture, whereby the United States allotted 2.5 million dollars and Lebanon a little over one third of that amount. By January 1956, the United States had spent approximately one-fourth of the funds allotted to agriculture, leaving a balance of approximately $1.9 million.

CHAPTER FIVE

POINT IV OPERATIONS IN LEBANON: NATURAL RESOURCES INDUSTRY AND MINING, EDUCATION, HEALTH AND SANITATION

Introduction

In addition to the agriculture division, there are four other major divisions in the Point IV Program, namely natural resources, industry and mining, education, and health and sanitation. There is also an audio-visual department and a newly-created labor division. This chapter relates the functions of these various divisions and the projects undertaken by them, in cooperation with the corresponding ministries in the Lebanese Government. It also includes, where information was available, the Mission's allotments and expenditures on the various projects. The last section of the chapter is on the overall financing of the Point IV Program by the United States Government.

NATURAL RESOURCES DIVISION
(LITANI OFFICE)

Introduction

The Litani Office was created when the Mission sent some experts from the United States to investigate the potentialities of harnessing the Litani River for irrigation and electric power. The first engineer who came to Lebanon for this purpose arrived in 1951 and is the present Chief of the Office. He was followed by 12 more American engineers in 1952. These experts were loaned to the Mission from the United States Department of Interior and remained on the payroll of the Department.[1]

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1. Interview with Mr. L.J. Snider, Chief of Natural Resources Division, USOM/L, May 1956.

The chief of the office is therefore responsible to the Country Director, the Lebanese Government and the Bureau of Reclamation which is within the United States Department of Interior.

The engineers originally came for one year in which time it was expected that the investigations of the Litani River could be completed. However, it was found that basic data necessary for the survey was not available in Lebanon and consequently had to be obtained from primary sources.

As the members of the Litani Office were in the process of collecting their data, the Lebanese Government requested similar investigations to be made of other rivers, and thus the Office's activities began branching out into other fields, to the point where now it no longer deals with the Litani River Project except for occasional advice given on request to the Lebanese National Litani Office.

The Natural Resources Division is presently participating in four major projects, namely, the Kasmie irrigation project, public roads development, water reconnaissance surveys, and the village water supply project. The Litani River basin investigations constitute the only project which has been completed by the Division.

The following table shows the extent of completion of the various projects.

TABLE 5

Project	Date of Project Agreement	Extent of Completion as of April 1956
Litani Investigations	1951	1954
Village Water Supply	1953	46% completed
Kasmie Irrigation	1953	70% completed
Water Resources Reconnaissance	1954	incomplete
Road Development	1954	incomplete

Source: Information was provided by the Natural Resources Division, Courtesy of Mr. Snider.

The following table shows the Mission's obligations and expenditures on each of the Natural Resources Division's projects.

TABLE 6

NATURAL RESOURCES DIVISION

ALLOTMENTS AND EXPENDITURES BY PROJECT

(EXPENDITURES AS OF APRIL 30TH, 1956)

Project	USOM/L Allotment $	Actual amount spent by Mission $	GOL Expenditures
Litani River Basic Investigation - Total	706,500	675,190	46,875
1952	656,500	644,174	
1954	50,000	31,017	
Water Reconnaissance Surveys - Total	106,880	78,349	
1952	40,000	28,282	
1954	40,000	37,279	
1955	5,000	5,000	
1956	21,880	7,788	
Public Road Development (Special Economic Assistance) 1954	1,500,000	1,261,088	
Village Water Supply Total	2,328,900	2,083,250	2,613,000
Special Economic Asst.	2,000,000	1,856,263	1,525,000
Technical Assistance	328,900	226,987	1,088,000
1952	170,000	144,950	
1954	2,090,000	1,923,133	
Special Economic Asst.	2,000,000	1,856,263	
Technical Assistance	90,000	66,870	
1955	33,000	8,655	
1956	35,900	6,510	
Kasmie Irrigation Total	549,500	521,331	2,400,000
1952	100,000	98,904	
1954	141,000	127,229	
1955	308,500	124,438	
		-170,760	(Committed for expend
Technical Assistance	1,691,780	1,501,857	
Special Economic Asst.	3,600,000	3,117,351	
Grand Total	5,191,780	4,619,208	

Source: Natural Resources Division, Mr. Snider.

Litani River Basin Investigations

The Lebanese Government requested the Mission to make the Litani River Basin Investigations in order to make a study of the potentialities for harnessing the river. The Litani River lies between the coastal and inland mountain ranges of Lebanon and is one of the largest rivers in the country.

The Mission's engineers completed the report in 1954, and presented the government of Lebanon with a three volume report. The first volume is a general description of the results of the investigations and studies; the second volume is a detailed presentation of the plans and pre-construction investigations made for the units of the project of harnessing the river which were the ones selected for initial financing; and the third volume is a presentation of the results of the planning investigations of the units remaining in the project other than those included in the second volume.[1] The three volumes have appendices which include hydraulogy, geology, ground water and power investigations.[2] The investigations cost the Mission $675,200 and the Lebanese Government approximately LL 150,000.[3]

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1. Natural Resources Division, USOM/L, Litani Project Report, Summary of Remarks made to the President, Prime Minister and Cabinet of Lebanon by the Division, 1954.

2. Ibid.

3. Controller's Office, USOM/L.

The plan recommended by the report was the diversion of a portion of the Litani water into the Bisri River basin and the use of the water in both basins for irrigation and power development. The project is to provide full water supply for irrigation to 18,600 hectares of land and a partial supply of water to another 2,900 hectares.[1] The project also provides for the installation of 171,000 kilowatts in six hydroelectric power units and the construction of a 69,000 volt interconnected transmission system for coordinating with existing and future power developments in the country.

The total cost of the project was estimated to be about LL342 million and the completion of the project to take about 25 years.[2] The report also stated that repayment of the cost of the entire project, through reasonable charges for irrigation and power, could be made 40 years after the first unit starts operating.

The Point IV investigations provided the basis on which the application offer to the International Bank of Reconstruction and Development and its loan for harnessing the Litani River were made. The studies were used by the Bank in order to find whether the project would be feasible and profitable. After considerable debate in Parliament, the Lebanese Government accepted a $27 million loan from the Bank for the first phase of the project. The loan was given for a period of twenty five years at an interest rate of 4 3/4 per cent. The Lebanese Government

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1. Litani Project Report, op.cit.
2. Ibid.

will provide $13 million in Lebanese pounds for the first phase of the project.[1]

In August 1954, the National Litani Office was established with a ten-member board of directors, to implement the Litani River Project

Water Resources Reconnaissance investigations

The Lebanese Government requested similar investigations to these of the Litani River basin, to be made for the other river basins in Lebanon. A project agreement was duly signed in 1953 and later revised in 1955, concerning the investigations of 7 minor river basins, namely, el Kelb, Ostouene, Arka, el Bared, Beirut, Damour and Abou Ali rivers.

The Ministry of Public Works provides basic hydraulic, economic and other data available in Lebanon, and since the beginning of 1955 it provides the services of Lebanese engineers needed in carrying out the investigations. Prior to 1955 it was up to the Mission to hire and train such personnel needed for the project and transfer them to the Ministry in that year, so that they could continue similar studies after the completion of this agreement. The arrangement was for American technicians to make the necessary technical investigations, prepare reports on their results, and make suggestions of tentative plans of development for each of the stream basins. The Mission provided the equipment needed for making the investigations.

Preliminary investigations and collection of data were started in 1954. The work consisted of determination of drainage areas, preparation

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1. International Bank of Reconstruction and Development, Annual Report, 1955, No. 11, p. 30.

of basin maps and river profiles, completion of existing rainfall and streamflow data, extension of hydraulogic data and review of studies made previously. Discharge measurements are being made, as of the time of writing, of numerous streams and springs to determine the amount of water available for irrigation and hydrauelectric power. Five stream gaging stations have been constructed to furnish additional stream flow records. Land classification studies are being made to determine the type, extent, and location of irrigable lands. Irrigation and power development schemes are being prepared where feasible. Studies are being made of the agricultural economy and geology of the basins.

These studies will provide planning data to be used in the future for developing irrigation, power production and domestic water supply for Lebanon. The data will be available to private agencies as well as the Lebanese Government.

Certain obstacles arose which prevented these investigations from being finished in 1956, as had been originally planned. One was that investigation of Nahr el Kebir could not be completed without the co-operation of the Syrian Government in providing basic data that were needed. Another obstacle was that the Ministry of Public Works needed to make available additional funds and transportation to obtain needed data. The project agreement for the 1956 fiscal year had not been signed by the Country Director by the time of writing.[1]

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1. Interview with Mr. Snider, Chief of the Natural Resources Division.

Road Development

The Lebanese Government, with the help of the Mission has embarked on a five year program of road construction and improvement of existing roads. The Natural Resources division provides approximately 60 per cent of the construction equipment required for the plan as well as technical advisors who are to assist in planning the overall program.[1] The Mission, however, assists in the construction work of only a part of the overall program, leaving the rest to be done by the Lebanese Government alone.

Joint construction work is now being done on part of a planned coastal, four lane highway, and a project agreement has been signed providing for the joint construction and financing of a road from Beirut towards Damascus, up till the Syrian border.

The construction work which is being done on part of the coastal four-lane highway is a 14 kilometer long section between Beirut and Maameltein. It is to serve as a demonstration of new methods and equipment used in the construction of the roads. The project agreement, which was signed in June 1954, concerning this road, provided that the Mission make available a project advisor and supervisors who work together with the Lebanese project director and technicians. The Mission allotted $1.5 million and the Lebanese Government LL 1.7 million for the equipment and construction of the road.[2]

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1. Project Agreement No. 68-31-003, Article II.
2. Ibid.

The project, however, was not completed during one year. One reason for this delay was the lack of qualified personnel. More surveyors and engineers were needed. Another hindrance to its completion was that a revised estimate of the Beirut-Maameltein strip of highway amounted to LL 9,096,000, which was LL 4,620,000 more than the total joint funds which had been appropriated for it.[1]

By April 1956, approximately 40 per cent of the construction of the first unit (6.2 kilometers) of the strip of highway concerned was completed and surveys had been made of the remaining 8 kilometers.[2]

The second road which will be jointly constructed and financed by the Mission and the Government is the road from Beirut to the Syrian border. The Mission offered to help the Lebanese Government in constructing this road by making a loan and providing technical assistance. The loan was refused by the Government on the grounds that it could not afford borrowing at the time. After an interval of several months, negotiations were again resumed, resulting in a project agreement whereby the Mission and the government would each provide for about half the estimated cost of the project. ICA allotted $5.2 million for the project, out of which $600,000 would be spent on equipment, $200,000 on costs of contracting technical advisory services and $2.4 million on construction and supervision.[3] The Lebanese Government's contribution

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1. Interview with Mr. Snider.
2. Ibid.
3. Project Agreement No. 68-31-084, Section A.

amounts to $5 million which is to include local costs of the engineering, contract and all other costs not provided for in the agreement.[1] The Lebanese Government will provide a Project Director and the Mission a Project Adviser who will prepare the plans for the construction of the road.

The project is only in its planning stage but the ICA allotment has been approved in Washington and the funds which will be provided by the Lebanese Government have been approved by Parliament.

Village Water Supply

The purpose of the village water project is to improve the health and living conditions of the inhabitants of rural Lebanon by providing adequate potable domestic water supplies in villages which have inadequate or contaminated sources of water.[2] The Mission is to aid the Lebanese Government in its four-year village water supply program. The project involves two agreements, both having the same objective; one is the technical assistance agreement and the other a special economic assistance agreement. The former was signed on October 1, 1953 and the latter on March 31, 1953. However, the technical assistance agreement of 1956 was signed only by the Ministry of Public Works and not by the Country Director who wanted the Ministry first to offer some assurance that it would provide the major portion of local costs.[3] The technical assistance agreement provides for the

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1. Ibid.
2. Project Agreement No. 68-52-036, Article II.
3. Snider, op.cit.

joint study and development by the Ministry and the Division of domestic water supplies of thirteen rural districts which include about 270 villages.[1] The procedure is that when studies made by the Point IV technicians in these areas indicate that the development of domestic water supply is feasible, a Memorandum of Understanding is prepared providing a program for detailed studies and construction. Memoranda were were signed for seven districts while actual construction of units was incompleted in five districts.[2]

The special economic assistance project agreement for village water supply provides for the purchasing by the Mission of equipment worth $2 million necessary for the construction of water supply systems in six of the thirteen districts under study.[3] The Lebanese Government is responsible for the installation of materials furnished by the Mission, the construction of reservoirs and other facilities, and the operation of the projects after construction is completed. The greater proportion of the equipment furnished by the Mission has arrived in Lebanon.

The Lebanese Government has appropriated a total of LL 25,400,000 for the development of village water supply projects during the period from 1955 to 1956.[4] So far it has provided LL 4,880,000, under the

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1. USOM/L, 1953 Progress Report, op.cit., p. 61.
2. USOM/L, 1955 Progress Report, op.cit., p. 89.
3. Project Agreement No. 68-52-068.
4. Snider, op.cit.

special economic assistance agreement and LL 3,480,000, under the technical assistance agreement.[1] The Mission has allotted a total of $2,328,000 for the project, out of which $328,000 was for technical assistance and $2 million for special economic assistance.

The Completion of the Kasmie Irrigation Project

The completion of the Kasmie irrigation project is one of the major undertakings of the Natural Resources Division. The original irrigation project had been conceived, planned, and started under the French mandate between the two World Wars. Construction was continued under the British occupation of Lebanon during the last war and by the Lebanese Government from 1945 to 1951, when work had to be stopped due to lack of funds.[2]

In 1951, the Lebanese Government requested the Mission to continue and complete this irrigation project, the cost of which was estimated at $650,000. The project provides for the irrigation of a narrow strip of land on the southern coast of Lebanon, between Sidon and Tyre. Although some of the land had been irrigated for centuries from wells, springs and simple river diversions, dry farming is still prevalent throughout most of the area.

This irrigation project provides for the diversion of the Litani River, called the Kasmie in its lowest reach, into two canals, one 14 kilometers long going south and the other 29 kilometers going north. The

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1. Project Agreement Nos. 68-52-036 and 68-52-068.
2. Snider, L.J., "Status of Technical and Economic Assistance Under Point IV" Natural Resources Division, USOM/L (unpublished report), April 6, 1956.

project covers an area of approximately 5,000 hectares of land, and the length of the area is approximately 37 kilometers with an average width of 1.3 kilometers.[1] The irrigation project will also irrigate an area known as the Gardens of Saida which is now being irrigated from water of the Bisri River.[2] The latter waters will be made available for supplying Aley and other mountain resorts near Beirut, with domestic water.

Any income accruing to the government from this project is to be paid to the Lebanese Independent Account for Development Works established in 1944, and is to be used for other water development projects.[3]

Certain problems have arisen in implementing the project. Destruction of constructions has occurred and there is a lack of maintenance over the entire system. Obstructions, debris, and mud will reduce the available water considerably.[4]

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1. Office of Rural Statistical Surveys, Village Survey, Kasmie Rural Improvement, A Cooperative Project of the Lebanese Ministry of Economy and USOM/L, January, 1953, p. 1.

2. USOM/L, 1955 Progress Report, p. 92.

3. Project Agreement No. 68-12-022, Article VIII.

4. Snider Report.

INDUSTRY AND MINING DIVISION

The Industry and Mining Division took part in establishing an Industry Institute, and is in the process of implementing three rural industrial projects and four other industrial projects. The only two projects which have been completed are the Industry Institute project and one of the other minor projects. The following table shows the Division's allotments and expenditures on the various projects.

TABLE 7

INDUSTRY AND MINING DIVISION
EXPENDITURES AND OBLIGATIONS
AS OF APRIL 1956
(IN DOLLARS)

Projects	USOM/L ALLOTMENTS	USOM/L EXPENDITURES	GOL ALLOTMENTS	GOL EXPENDITURE
Industry Institute	654,900[a]	428,100	NA	154,273
Rural Industrial Projects				
Handicrafts	NA			
Olive Oil	18,000	--	11,400	--
Solar Salt	10,500	--	10,000	--
Other Industrial Projects				
Air Navigation	62,600	1,100	NA	NA
Others	NA			

Source: USOM/L, "Status of Funds Summary by Major Fields", Controller's Office of USOM/L, May 1956, (unpublished)

a/ This figure includes $225,000 spent on the construction of the Institute.

The Industry and Mining Division consists of the chief of the Division and his secretary. It is small in size due to the fact that many of its projects are implemented by the Industry Institute.

Industry Institute

The Industry Institute was established by the Mission, the Lebanese Government, and the Association of Lebanese Industrialists, as a permanent, non-profit and independent corporation of skilled management and physical science specialists. The major objectives of the Industry Institute are improving the efficiency and production of existing industries by giving them technical and management advice, promoting the establishment of new industries which are economically sound, and encouraging foreign and domestic sources to invest in local industry.[1] The Institute provides professional services and makes available useful information to industries, governments, institutions and individuals of Lebanon as well as those of other neighbouring Arab countries.

The Institute is governed by a Board of Trustees, consisting of a representative of each of the three founding organizations and four other members representing finance, law, business, and technical education. The Chairman of the Board is the Minister of National Economy.

Although, in 1956, the Institute was only 22 per cent self supporting, it is expected to be self supporting by 1960 through its sponsored research and development projects.[2] It is at present subsidized by the Mission and the Lebanese Government. In 1954 the Association of Lebanese Industrialists also contributed to the Institute. The contributions of the above three agencies from 1953 to 1955 were as follows:[3]

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1. Industry Institute, Annual Report, 1954, p. 1.
2. Interview with Mr. Hibri, Director of the Industry Institute.
3. Industry Institute Annual Reports 1954 & 1955, p. 21.

	1953	1954	1955
Lebanese Government	LL 89,400	154,400	249,874
ICA		67,000	498,735
Association of Lebanese Industrialists		5,200	

A modern large building has just been completed for the Industry Institute. It is equipped with modern laboratories and offices. The grounds were contributed by the Lebanese Government and the cost of construction, $225,000 was borne by the Mission.[1]

The activities of the Institute can be categorized into three groups. One is giving technical and managerial consultation to industrialists on a cost-incurred basis. Information obtained under such projects is available exclusively to the company sponsoring the project. As of April 1956, 10 technical and 8 management consultations have been undertaken, out of which three were for Syrian and the rest for Lebanese industrialists. Some examples of such projects are: a study on production and bottling of concentrated fruit juices, a general study of operation problems encountered in a vegetable oil and soap factory, market research on dairy products, and an industrial engineering survey for a textile mill.

The second category of project is government sponsored surveys. The cost of these projects is borne by either the Lebanese Government or the Mission, or both, and the results are made public. Two examples of these projects are a complete survey of water resources in Lebanon and solar salt refining.

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1. Ibid.

The third category of projects is undertaken by the Productivity section of the Institute and consists of general industrial surveys and productivity studies, which are financed by the Industry Institute itself. These surveys are designed to raise the general level of industrial productivity in the country and their results are available to the public. A series of articles were published, pamphlets distributed, and lectures given, on the subject of industrial productivity.

The Industry Institute has a library which is for the use of the public as well as the technicians of the Institute, with 900 technical books and subscriptions to 60 journals. The institute also has a question and answer service which enables industrialists to ask any questions about industries, whether on technical or managerial problems. If the Institute's technicians and specialists are unable to answer a question it is referred to ICA in Washington. This service is provided free of charge.

The Industry Institute has a laboratory well equipped for chemical work and for testing physical characteristics of manufactured products. The laboratory services the Government Consumer Protection Service, and is thus of a semi-official status as a public laboratory. Tests have been made for determining analytical characteristics of food products such as milk, butter, coffee, bread, flour and alcoholic beverages for the Lebanese Government. Other tests, such as the analysis for a mining enterprise, performance examination of textiles, and soap and detergent tests, were made for factories, institutions, companies and individuals.

Rural Industrial Projects

The Industry and Mining Division has, in cooperation with the Lebanese Government, undertaken three rural industrial projects and has made the Industry Institute responsible for their implementation. The projects deal with the handicrafts, olive oil, and solar salt industries, all of which employ a large number of the rural population in Lebanon. One of the objectives which these three projects have in common is that of decreasing underemployment in agriculture by raising renumeration possibilities in rural areas.

The handicraft project is the only one of the three rural industrial projects in which considerable progress has been made. A handicraft distribution center was established in order to find foreign markets for handicrafts, to improve their quality, and to align handicraft prices with world competition.

The center has taken samples of all the handicrafts in Lebanon and published a handicrafts catalogue for distribution abroad. The center has also taken part in exhibitions in New York and Munich where it took the opportunity to make contacts with prospective buyers.

The center takes orders for handicrafts abroad and at the same time tries to improve the quality of handicrafts by including with each order specifications as to the type of stitches or designs wanted. The center has come in contact with numerous villagers who make handicrafts and these local producers bring their finished products to the center where they are directly paid for their goods, rather than having to wait until the handi-

crafts are sold abroad. The majority of handicrafts sales are made in the United States where the market is especially good for daggers, toys, and leather goods. Sales by the center in 1955 amounted to only LL 2,500 due to the fact that the project started in the second half of the year.[1] However, the head of the handicrafts center estimates the value of handicrafts by the center from the beginning of the project until February 1958 to be LL50,000.

In contrast to the handicrafts project, little progress has been made in the olive oil and solar salt projects. Since Lebanese olive oil is at present of low quality due to inadequate methods of pressing and material handling, the objective of the olive oil project is to improve the present methods of pressing oil and to produce a better grade of oil. In 1955, a team of Lebanese technicians and olive oil producers was sent to Greece and Crete for nine days to study the technical methods used there in the olive oil industries. On their return they prepared a detailed report on their findings. Under this project it is planned to establish a demonstration oil plant in North Lebanon. This, however, has not been done.

The objective of the solar salt agreement is to increase the quantity and improve the quality of salt produced in Lebanon. The country produces only 9,000 tons of salt annually as compared with the total annual consumption of 17,000 tons.[2] The largest producers of salt agreed to use

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1. Industry Institute, Annual Report, 1955, p. 15.

2. Ibid.

the salt refinery which is to be built by the Lebanese Government and which will be of superior quality to the existing salt refineries in the country. The refinery, however, is still in the planning stage.

Other Industrial Projects

Besides the three Rural projects there are five more which have been entered into by the Industry and Mining Division in cooperation with the government. Two of these are the Air Navigation Projects which have been signed but not yet begun; one of them provides for the installation of special security equipment for safety in landing and taking off; the other is the improvement and expansion of the Beirut Airport.

The Division is presently undertaking two research projects. One is the Mineral survey which will include the types of minerals found in the country, their location, their quality, and the possibility of commercial exploitation. The other research project is the Census of Industrial Establishments on which the Division is working together with the Economic Research Institute of A.U.B.[1]

One project into which the Division has entered in cooperation with the Lebanese Government is the Improvement of Industrial Practices project. The purpose of the project is to help the expansion of industries in the country. An American technician appraised the work of the Chamber of Commerce and of the Association of Lebanese Industrialists

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1. Completed in June 1957.

in this particular field and gave them advice on how to be more effective. His work was found by the Government to be so beneficial that he was awarded a Lebanese citation.[1]

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1. Interview with Mr. Zakkour, Secretary in the Industry and Mining Division.

EDUCATION DIVISION

The Point IV education program can be divided into four major groups, namely, research and statistics, vocational training, urban and rural teacher training, and participants and teacher training conferences. The Division and the Ministry of Economy also embarked on two rural development projects which were discontinued in 1955. The following table shows the allotments and expenditures made by the Mission on the various projects of the Education Division.

TABLE 8

EDUCATION DIVISION
MISSION'S ALLOTMENTS
AND EXPENDITURES
AS OF APRIL
1956
(in $)

Projects	Allotments	Expenditures
Research and Statistics	110,700	47,400
Rural Statistical Survey	72,500	72,500
Vocational Training		
Home Economics	351,500	346,500
Technical Training	482,900	160,900
Urban Teacher Training		
Urban Teacher Training School	NA	NA
Demonstration elementary School	83,000	82,700
Adult Education		
Teaching of English	139,500	123,900
Teacher Education	258,700	100,800
Rural Teacher Training College	14,800	2,500
Rural Improvement - Kasmie	141,400	123,100
Saneen	85,000	70,100

Source: Office of the Controller, USOM/L, May, 1956.

Research and Statistics Project

The purpose of the Research and Statistics project is to develop within the Ministry of Education a statistics office capable of doing necessary research on education in Lebanon and publishing reports containing such information annually.[1] The office has been established and is headed by a Ministry employee who had been sent to the United States by the Mission for one year's training. It was equipped by the Mission. One United States technician and his consultant assist the office in its research work.

The reason for establishing the statistics office is that such information as the number of schools, the number of teachers and their training enrolment, etc., is an essential basis on which plans ought to be made for education improvement in Lebanon.[2] The Statistics Office has already provided the Mission with such information, and the statistics office in cooperation with the Mission is also doing research as to vocational training, number engaged in the various vocations and the kind of vocational training the country is in need of.[3] Two annual reports containing statistical information on education in Lebanon have been completed. They enable the two governments to agree on objectives of an educational improvement program. The statistics office has also made, together with the education division, a village survey on the Kasmie rural area.

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1. Project No. 68-69-028.
2. Interview with Mr. N.T. Myers, Chief of Education Division, USOM/L.
3. Ibid.

Vocational Training Project

One of the projects undertaken by the Education Division is Vocational Training. Its objective is to assist the Ministry of Education in developing and expanding its system of vocational schools.[1]

The Mission has provided seven vocational experts, each a specialist in a particular trade, working in cooperation with the Arts and Métiers School. They are from the Delgado Central Trade School, New Orleans, Louisiana and were contracted for three years. They assist in preparing job analyses and courses of study in auto mechanics, radio electronics, electricity, wood-working, printing, foundry, commercial art, textile, carpentry and drafting.[2] They will help plan a new trade school project. The Mission has also contributed some shop equipment to the Arts and Métiers School in order to improve its effectiveness.[3]

Together with technical assistance in vocational training, Point IV is also participating in Home Economics education. Home Economics Conferences are sponsored jointly by BCW and Point IV. Ninety teachers and students attended the first conference held on April 25th, 1955, while 200 students and teachers from 18 Lebanese schools attended the third conference held on 22-25 April.[4] In July 1954 a four weeks Home Economics course was held at BCW. Twenty government school teachers attended

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1. Project No. 68-61-041.
2. USOM/L 1955 Annual Report, op.cit., p. 55.
3. USOM/L 1955 Annual Report, op.cit., p. 34.
4. USOM/L 1955 Annual Report, op.cit., p. 56.

classes.

The Education Program has also attempted to promote village crafts such as basketry, glassware, pottery, leatherwork, weaving, woodcarving, etc. A survey was made on the existing crafts. It was found that methods of production could be improved.[1] The USOM/L presented a report of suggestions and recommendations for setting up Industrial Arts instruction in the Lebanese Government Schools while private schools received consultant service. There will also be an Arts Laboratory in the Urban Teacher's College.

Teacher Training Program

The Education Division and the Ministry of Education have embarked on a teacher education program in order to better the quality and standing of the elementary school teachers by improving teacher education and providing in-service training of teachers. Two teachers' colleges, one urban, the other rural, are to be established. The rural college is still in its planning stage while the urban college has been constructed.

Urban Teacher Training College

The urban teacher training college is located at the old airport site near Beirut. It is to accommodate approximately 450 students annually and will have from 75 to 90 graduates each year.[2]

The college is to be staffed by government employees plus a few teachers who have been sent to the United States for training. So far

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1. USOM/L, 1955 Annual Report, op.cit., p. 37.
2. Interview with N.H. Myers, Chief of the Education Division, USOM/L.

eight teachers received training in the United States and four more are being sent this year.[1] One technical adviser from the Mission is to help plan the curriculum and it is expected that UNESCO will provide an adviser as well. The college will also provide opportunities for teachers in service to participate in summer sessions and special conferences. Courses started in October 1956.

The College will also have an attached elementary school which has not yet been constructed, to give the college students an opportunity to do practice teaching and to learn to use the latest instruction material.

The Rural Teacher Training Program

The Rural Teacher Training Program will either be in Hammana or in Zahle.[2] Teachers will be trained so as to be effective in the rural areas of the country. Besides the usual subjects taught in the villages teachers will also learn techniques in homemaking, industrial arts, health, sanitation and recreation.[3]

The project aims to improve the curriculum in the local schools and to strengthen the contribution of the school to better community living. The teachers will be trained to be leaders of their village.

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1. Interview with N.H. Myers, Chief of the Education Division, USOM/L.

2. Op. cit.

3. Education Division, USOM/L, The Lebanon Rural College, August, 1955 (unpublished), p. 2.

The college building will be simple and practice teaching will be done in the nearby villages. The Ford Foundation is assisting in the program by sending participants. So far it has financed 150 students appointed by the Ministry for Rural Teacher Training in Denmark, Scotland and the United States.

Participants and Teacher Training Conference

The USOM/L Educational Division in cooperation with the Ministry of Education and Social Affairs have undertaken a Training Program. The Program trains students either by sending them to AUB, abroad or to weekend and summer conferences.[1]

Training Program

The Ministry of Education and USOM/L have a contract with AUB concerning Point IV trainees. The Ministry nominates candidates to be sent to the University. The candidate must qualify for at least the Sophomore year and final approval has to be made by AUB, the Government and the Mission. Since 1953, sixteen Lebanese students have graduated under this program. Sending the students to AUB has the advantage of being less costly than sending them abroad. However since training facilities are limited in this country some participants have to be sent abroad. They are also appointed by the Ministry and approved by the Mission. Since 1953, 25 trainees were sent abroad, especially to the United States.[2] Most of them are sent for a period of one year with

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1. Education Division, USOM/L., Training Program Report, November 3, 1955, p. 1.

2. Ibid.

the exception of a few who received a scholarship for two years.

Local Training through conferences and summer sessions has the advantage of other types of training in that it can be extended to many people who otherwise would have no opportunity whatsoever to learn improved methods of teaching. It is especially beneficial for elementary school teachers who have the Brevet or Certificat and are financially unable to obtain a higher education.

Participants at these conferences and at summer sessions have all been Ministry of Education employees. The following table shows the number of teachers attending these conferences, the duration of the sessions, and the subjects studied.[1]

Year	Number of Conferences	Duration	Number of Teachers attending	Subject
1953	1 - Summer	8 weeks	50	Health
1954	16 - Weekend conferences	5 days each	500	Health educ.
1954	1 - Summer	6 weeks	50	Education
1955	4 - Weekend conferences	3 days each	120	Health educ.
1955	1 - Summer conf.	6 weeks	40	Health educ.
1955	1 - Summer conf.	6 weeks	50	Vocational educ.

During these three years there were also four Home Economics Conferences of a total of 29 days with 450 government and private teachers attending.

Between 1952 and 1956 there were four conferences held at AUB by the Elementary Teachers Institute, of 6 weeks each for elementary teachers. A total of 82 teachers participated. The subjects studied

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1. Ibid., p. 13.

were: Principles of education and child psychology; modern teaching methods of elementary school subjects; trips to places of historic interest in Lebanon.[1] During the same period there were also four conferences of 6 weeks each at the Elementary Teachers Institute at Sidon. There were a total of 55 participants and 44 lecturers. They studied the following subjects: the village and its problems; family relations, rural schools and rural development; principles of education and child psychology, arts and crafts; methods of teaching; methods of teaching reading and science.[2]

The Secondary Teachers' Institute also gave sessions at AUB. In 1954 there was a four weeks conference with 19 Lebanese participants and 1 lecturer, in 1955 a 6 weeks' session with 8 Lebanese participants and the same number of lecturers. They studied the Teaching of English, Mathematics and Science.[3] The above sessions also had participants from other countries.

Teaching of English

English lessons are also being given to government employees. At present there are 1,200 people taking English classes. They are government teachers, policemen, army civil service employees, etc. About 500 of them are members of Lebanese Labor unions. There are now 22 English-teaching centers throughout Lebanon.[4] The classes are given by

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1. Ibid., p.15.
2. Ibid.
3. Ibid., p. 19.
4. Interview with N. Myers, Chief of Education Division, USOM/L.

Lebanese teachers who have had special training given by the Missions language specialist and his counterpart on how to teach foreign languages.[1]

ENGLISH CLASSES[2]

Year	No. of Centers	No. of Teachers	No. of Students
1953-54	13	115	2,000
1954-55	22	83	1,000
1955-56	22	90	1,200

Since 1952 there have been eight counterparts trained in the Ministry of Education and two in Labor from the Ministry of Social Affairs. Casual training, on an in-service basis in vocational training is being given to all instructors of Arts and Métiers School in methods of teaching.

Rural Development Projects

In 1955, the Education Division, together with the Ministry of Social Affairs, embarked on two rural development projects, which, because of various difficulties, were discontinued in 1956. Rural development was considered important by the Mission and the Lebanese Government because most of the rural villages are lacking in health services, educational and employment opportunities, and social and recreational services.

The two pilot rural development projects were undertaken in the Kasmie area, which is on the southern coast of Lebanon, and the Saneen area situated in the central mountains of Lebanon. It was planned to improve the economic and social conditions in these two rural areas by

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1. Ibid.
2. Training Program Report, op.cit., p. 15.

providing health education and services, instruction in village crafts, and by assisting in improving agricultural production and marketing, social and recreational activities and assistance to village school teachers. The two areas were also to be used for demonstration purposes for other villages in the country.

The six villages selected in the Kasmie area for rural development are located on a narrow strip along the coast between Tyre and Sidon. Most of the inhabitants are farmers who have their land near their villages. The crops grown in this area vary depending on whether the land is irrigated or not. On the irrigated farms the crops predominantly grown are oranges, bananas, and tomatoes. Where there is dry farming, the crops most frequently grown are wheat, barley, corn, olives, watermelon and figs. All the villages, except one, have government elementary schools. The classrooms are usually small and students are closely packed. Health facilities, such as hospitals, or health centers, are rare.

During the time that the rural development program was being undertaken in the area, five school community centers were built, each containing 6 rooms. The villages provided the land on which the centers were built, the Mission made the plans, and the Ministry of Social Affairs financed the construction. The Mission also sponsored a summer recreational program in 1954. A recreational leader trained at the American University of Beirut was utilized. The Program included evening social events and various sports. The Kasmie Irrigation project undertaken by the Natural Resources Division and the Ministry of Public

Works is a part of the Kasmie Rural Community project. Unlike the other phases of the project, however, work on it is being continued.

The eight villages in the Saneen area which were included in the rural community development, range in altitude from 2,500 to 5,000 feet.[1] The area from which they derive their livelihood covers about 400 square kilometers and is partly wooded, partly cultivated, but mostly rocky and barren.[2] The inhabitants have planted orchards and vineyards on a good part of this terrain, at tremendous cost and human effort. A larger area, however, has to be cultivated and irrigated in order to increase production and to raise the level of living, or at least to keep it at the same level under the present rate of growth of the population. Irrigation could increase the production of crops from four to five-fold.[3] The main source of livelihood in this area is from fruit and vegetable growing.

Road construction was part of the rural development program in this area. A thirteen kilometer road was built connecting the villages to the road leading to Beirut. Another road was built to Wadi el Dilb, a fruit area. Construction work was done by the villagers and the equipment was paid for by local contributions and the Mission.

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1. Education Division, USOM/L, "District of Mount Saneen - An Outline of A Development Scheme".

2. Ibid.

3. Ibid.

Another part of the project was the teaching of village women healthful practices at home, in cooking, child care, sewing and various forms and food preservation. English classes were also given to young school girls.

Both of the rural community projects were discontinued in the beginning of 1955. Work on the project ceased largely due to a disagreement between the Lebanese Government and the Mission. One high government official wanted one of the rural development projects to take place in his district while the Mission refused that.

HEALTH AND SANITATION DIVISION

The objectives of the Point IV Public Health program are to promote healthful living by means of education and to apply medical knowledge by means of building laboratories, health centers, clinics, and hospitals, and by training personnel. The Ministry of Health and the Mission's public Health Division have been working in five fields of activity; sanitation; nursing; clinics; public health laboratory; and statistics and vital registration.

The following table shows the Mission's obligations and expenditures on each of the division's projects:

TABLE 9

HEALTH AND SANITATION DIVISION
ALLOTMENTS AND EXPENDITURES BY PROJECTS
(EXPENDITURES AS OF APRIL 30, 1956).

Projects	Allotments	Expenditures
Sanitation		
Rural	140,600	137,500
Urban	25,500	15,400
Public Health Laboratory	170,000	153,800
Nursing School	64,600	51,400
Urban Health Center	43,500	41,900
Vital Registration	38,600	29,600
Health and Vital Statistics	35,900	7,400

Source: Office of the Controller, USOM/L, August, 1956.

Sanitation

The Sanitation program can be divided into two categories: rural and urban. The rural health program aims at prevention of disease rather than treatment. The program is to demonstrate what can be accomplished through modern health practice and to stimulate interest among the rural population in continuing and extending the public health services.

Under this program a school was built in the Bekaa Valley to serve as a pilot demonstration of a school acceptable in physical and sanitary standards. The villagers paid 40 per cent of the cost of construction.[1]

Further under this program, physical examinations were given to 3,134 school children in the Bekaa Valley, out of which 1,132 were sent to government physicians for further examinations.[2] The use of health records of students was taught to village schools in the same area. Other services such as the spraying of DDT and teaching about its use, were provided by the Mission. Health films were also shown to villagers. Pit privies were installed in several villages.

As part of the urban sanitation program, the Municipal Sanitation Project Agreement was signed in March 1955, by the Mission and the Ministry of Public Health. It provided for the introduction in urban areas of sewage, garbage and refuse disposal. Designs have already been completed for a modern sewage treatment plant for Bhamdoun. Designs have

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1. USOM/L, 1955 Progress Report, op.cit.

also been made for sewers for Tripoli and plans for sewage systems in Baalbeck, Jdita and Zahle are also to be made.[1]

The Mission's sanitarian together with the Beirut sanitary engineer developed a code of sanitation for restaurants and food handlers.

Public Health Laboratory

The Mission has constructed a Public Health Laboratory in Beirut on land provided by the Lebanese Government. The laboratory has a Lebanese staff and an American advisor. It consists of seven divisions: administration, microbiology, general chemistry, pathology, antirabies, a central blood bank and epidemological research.[2] The laboratory technicians test water, milk, sewage, and process specimen from the health centers. It will serve in diagnosing communicable diseases quickly.

Nursing

In order to strengthen the nursing profession in Lebanon, a project was undertaken by the Mission in cooperation with the newly built Mekassed El-Khairiyah Medical Hospital. Under the project, a nursing school was established within the hospital. An entire floor was given to the nursing school which is staffed by five full time Lebanese employees and an American nurse, who receive their salaries from the Mission. The hospital is being used by the student nurses for their clinical and practical experience. The Clinical facilities are also available to the smaller schools in the country.[3] In addition to training new nurses, the school

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1. Ibid.
2. Ibid.
3. Liaison Report, "Health Project", (unpublished), 1955.

will offer continuous education programs for graduate nurses in preparation for being leaders in hospital nursing services and in nursing schools.

In its overall nursing program, the Mission has also sent four Lebanese nurses for training abroad and financed the training of about ten Lebanese nurses in the American University of Beirut.

Urban Health Center.

An urban health center, located in Ras Beirut, is operated by the Mission and the Lebanese Public Health Association which is a voluntary agency. One of the objectives of establishing this center is to demonstrate to the City Health Department proper operation of a health center and to interest the community in health services.

The center is staffed by Lebanese personnel receiving their salaries from the Mission and voluntary local personnel who are members of the Lebanese Public Health Association.

The center provides medical services for individuals, holds classes for mothers, does health group teaching, and provides some laboratory services. Its staff has made inspections of 3,280 restaurants and other public institutions. The center is also used for training students from the AUB School of Preventive Medicine.

In addition to the health center, two maternal and child health clinics were established in the Bekaa Valley by the Mission and the Ministry of Public Health.

AUDIO-VISUAL DIVISION

The Audio-Visual Division enables information to be given to many people at a low cost. The various Point IV technicians have to reach thousands of people in Lebanon in spite of illiteracy and language barriers. The Audio-Visual Division works with all the Divisions of the Mission and helps to disseminate information throughout Lebanon by using films, slides, booklets, pamphlets, posters, photographs, recordings, radio, exhibits and various other educational training aids. It has made 5,000 copies of fly control posters for the Health Division, 36,000 copies of various posters for the Education Division, 1,000 copies of the Kasmie Rural Improvement Survey and many other similar media to improve their audio-visual programs.

The Mission sent three trainess to Syracuse University Audio Visual Center for a year, thus providing three experienced workers in the field.

The Newly Created Labor Division[1]

In late 1955, American labor experts made a survey of labor unions and labor conditions in Lebanon with the purpose of investigating the possibilities of having Point IV undertake some labor projects. Upon the recommendation of these experts, an American labor union leader was employed by Point IV for four months to study the possibilities of imple-

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1. Interview with Khalil Salem, American Embassy - Economics Division.

menting a labor education program in Lebanon. As a result of his recommendations, a new Labor Division was formed.

The Division has already entered into two project agreements with the Ministry of Social Affairs. The purpose of one project is to train labor union leaders in organizing their affairs. They will be taught how to keep their books, run meetings, negotiate with management, collect dues, etc... Another objective of this project is to teach management or employers the ways in which labor disputes can be settled.

The other agreement entered into by the Mission and the Lebanese Government provides for the collection of labor statistics in order to enable the government to implement the Social Security Law which has been referred to Parliament.

Finance

From the beginning of the Point IV program in Lebanon on until July, 1956, total Point IV allotments amounted to about $25 million. The following table shows how the allotments for technical assistance were divided among the five divisions. The Agriculture and Natural Resources Divisions are considered together since the projects of the latter are mostly for the benefit of the rural population. The allotments made to these two divisions are almost double those made to the Education Division and triple the amounts of the Industry and Public Health Divisions considered separately.

TABLE 10

Funds allotted to Lebanon through the Point IV Program

(in $ thousands)

Technical Assistance	1952-54	1955	1956	Total
Agriculture & Natural Resources	3,347	810	543	4,700
Industry, Labor & Transportation	516	270	696	1,482
Education	1,438	397	559	2,394
Public Health	888	315	277	1,480
Public Administration Miscellaneous Administration Regional	1,859	448	879	2,246
Total Technical Assistance	8,048	2,240	2,954	13,242
Economic Assistance	6,000			
Natural Resources	3,500			
Agriculture	2,500			
Development Assistance			3,470	
Earthquake Assistance			2,000	
TOTAL	14,048	2,240	8,424	24,712

Source: Office of the Controller, USOM/L, Aug. 10, 1956.

CHAPTER SIX

THE IMPACT ON THE LEBANESE ECONOMY OF UNITED STATES ECONOMIC AND TECHNICAL ASSISTANCE

I. Introduction

The previous chapters have covered the first four years of the Point IV Program in Lebanon. It is still too early, even if the information contained in these chapters were up to date, to detect the major tangible results of the projects undertaken by the Mission in cooperation with the Lebanese Government. This final chapter will discuss, however, whether the Program is likely to lead towards the original objectives of Point IV cited in Chapter I. These objectives were stated to be helping underdeveloped countries develop economically and creating greater political stability in these countries. The most important question is whether the Point IV Program is contributing to the economic development of Lebanon. The second question, which will be discussed very briefly, is whether the Program tends to lead towards greater political stability in Lebanon.

II. POINT IV AND THE ECONOMIC DEVELOPMENT OF LEBANON

A. Introduction

Since technical assistance is a cooperative venture it is subject to various difficulties such as those mentioned in Chapter I, due to cultural and historical differences between the two countries. However, these difficulties may not be as pronounced in Lebanon as in other underdeveloped countries participating in the Program, due to

certain features inherent in the social and economic structure of Lebanon. The implementation of the Program is thus facilitated by the fact that Lebanon is more developed and has a higher level of education than most of the other participating countries. The centuries-old contact of Lebanon with the West has a favorable influence on the Program. Since technical assistance is in essence the teaching to people of new techniques and ideas, constant contact and cooperation between Americans and Lebanese is necessary. In the United States it is difficult to find technicians who are experts in their field and also have a wide knowledge of the outside world and of foreign languages. Therefore most of the technicians arriving in Lebanon have a limited knowledge of the area and do not speak Arabic. It should therefore be a welcome revelation to them to find that the Lebanese are used to foreigners and to new ideas, and are very familiar with the Western world and its languages, although the language barrier does exist in some of the villages where Point IV aid is being extended. The Program is also facilitated by the fact that the Lebanese people are enterprising and are enthusiastic about developing their country.

Thus, in general, when comparing Lebanon with the other underdeveloped countries participating in the Program, the country's higher economic level and stock of knowledge, its past and present contact with the West, the people's facility for languages, and the enterprising character of the people, all work in favor of the implementation of the Point IV Program.

It should be stressed at this point that Point IV, being a technical assistance program with a minimum of capital aid, cannot bring

about economic development by itself. Underdeveloped countries need capital in conjunction with technical assistance, to generate a larger income and lead to a higher standard of living. Lebanon is again at a slight advantage compared with the other participating countries, in that the shortage of capital in this country is not as great as in the others. Nevertheless, while discussing the impact of the Point IV Program on the Lebanese economy, it has to be kept in mind that technical assistance acts only as a catalytic agent in economic development.

It is virtually impossible to measure the impact of a technical assistance program. It is generally agreed that technical assistance, if successfully implemented, can have a large influence for a relatively small cost. However, more research has to be made on measuring the primary and secondary benefits directly attributable to technical assistance.[1]

In spite of the difficulty of evaluating the impact of Point IV on the Lebanese economy, certain speculations and conclusions can be made as to the effect of specific phases of the program and general comments on the financing of the program. Certain judgements can be made on the extent of success or failure the Program has had in Lebanon.

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1. Wharton, C.R. Jr., "The Nature of Technical Assistance for Economic Development", Economic Development and Cultural Change, Jan. 1958, p. 114.

The first few years of the Point IV Program were largely years of experimentation and learning for both the Americans and Lebanese. During these years, Point IV in Lebanon, as in the other participating countries, suffered delays and in some cases failures in the implementation of its various projects. Between 1952 and 1956 more than thirteen projects were discontinued due to either social and political reasons, to lack of capital, or loss of interest on the part of the Lebanese Government. Thus such worthwhile projects as the marketing and the rural development projects were discontinued: the first due to failure on the part of the Lebanese Government to build a warehouse; the second mainly due to internal politics. The Rural Teacher Training College will most probably not be built due to lack of interest in this project on the part of the Lebanese Government. The program of sending participants abroad also suffered some major setbacks and resulted in the Mission changing its participants program. The agricultural cooperatives project is an example of the Mission embarking on a program for which the country is not yet prepared due to the individualism of Lebanese farmers. Cooperatives were hastily established by farmers in order to receive the benefits of cheaper supplies made available to cooperatives under this project. However, out of the 100 cooperatives which were established, only about five are organized efficiently and are of use to farmers who are their members.[1]

There were also successful projects, and setbacks suffered in the Program are decreasing as the Mission and the Lebanese Government are

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1. Interview with Mr. T. Maalouf, Agriculture Division, USOM/L, March 1958.

amassing experience in giving and receiving technical assistance, respectively.

B. Extent of United States Technical and Economic Assistance to Lebanon As Compared to Other Middle Eastern Countries.

One of the major criticisms made by the Lebanese, of the United States technical and economic assistance to Lebanon, as well as to other Arab countries, is that it has been financially small in comparison with United States aid to Israel. The following table shows United States assistance to Arab Middle Eastern countries and Israel between 1952 and 1956.

TABLE 11

UNITED STATES AID TO ARAB MIDDLE EASTERN COUNTRIES AND TO ISRAEL 1952-1956 (in U.S. Millions)

Country	US Aid
Saudi Arabia	2.3
Iraq	9.9
Lebanon	24.7
Jordan	32.7
Egypt	61.7[a]
Total Arab States	131.3[a]
Israel	256.8[b]
Grand Total	386.4

Source: ICA/W Program Office, Table "U.S. Aid Made Available to Middle Eastern Countries, 1952-1956", photostat made by the Audio Visual Service, USOM/L, 1957.

a/ includes $7.5 million loan made to Egypt.
b/ includes $30 million loan.

If United States allocations to Lebanon are compared with those to other Arab countries, then Lebanon received, during these years, approximately one-fifth of the total allocations. However, if Israel is included, then Lebanon received only six per cent of the total allocations. It can, therefore, be pointed out that not only Lebanon, but all the Arab states were granted a disproportionately small amount of United States aid as compared to the aid received by Israel which was almost twice the amount received by the Arab countries combined. If aid to Israel and Lebanon from 1952 to 1956 is expressed on a per capita basis then aid to Israel amounted to $135 and aid to Lebanon amounted to $16.

One reason given for the small proportion of United States aid to the Arab states as compared to that of Israel, is that assistance under the Point IV Program is given on the basis of requests made by the host country. Israel did more planning than its neighbouring countries and thus had more projects for which it needed assistance.[1]

Reasons given for the small proportion of aid received by Lebanon from the United States, are that Lebanon is one of the smallest Middle Eastern countries both in size and population, and also that it is more developed economically than most of the other Middle Eastern countries and therefore needs less aid.[2] Lebanon, however is precisely in such a

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1. Speech made by Farley, Country Director, USOM/L, at AUB in 1955.

2. Ibid. This argument, however, cannot be used in defending the fact that Israel receives more aid than Lebanon, since it is either equally developed or more developed than Lebanon.

phase of development when it needs capital together with technical assistance in order to have a visible impact on the economy of the country. A very underdeveloped country has a small stock of capital and therefore capital investments will be proportionally larger than if related to the capital stock of a more developed country such as Lebanon. Therefore Lebanon, being a more developed country than the other participating countries, has more capital investment than these countries and thus needs larger capital investment to make an impact on the economy of the country.

C. Time Lag Between United States Obligations and Actual Expenditures.

In addition to the fact that Point IV allocations to Lebanon are relatively small, a considerable time lag takes place between the obligation of ICA funds and the time of actual expenditures made. Out of the $24.7 million allotted from the beginning of the program until July 1956, only $16.5 million was spent up to the latter date, leaving approximately $8.2 million which had not yet been used.[1] The following table compares United States technical assistance and allotments made for the various fields of activity as of July 1956 and the expenditures made as of July 1957 a year later.

It is apparent from the table that in most fields of activity, the funds which were allotted as of July 1956 had been entirely spent a year later. It is, of course, true that during the year between July

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1. Middle East Economic Digest, March 22, 1957.

TABLE 12

U.S. ALLOTMENTS AND EXPENDITURES FOR TECHNICAL ASSISTANCE IN LEBANON AS OF JULY 1956 AND JULY 1957, RESPECTIVELY (in $'000)

Field of Activity	(1) US Allotments as of July, 1956	(2) US Expenditures as of July, 1957
Agriculture and Natural Resources	4,700	2,685
Industry and Mining	1,016	1,237
Labor and Transportation	466	799
Education	1,800	1,252
Community Development	594	553
Public Health	1,480	1,047
Miscellaneous	3,186	146
GRAND TOTAL	13,242	7,719

Sources: Col. 1 - USOM/L, Office of the Controller, August 10, 1956.

Col. 2 - L'Economie Libanaise et Arabe, Quelques Chiffres Sur L'Aide Américaine Au Liban", Dec. 1957, p. 14.

1956 and July 1957, additional allotments were made and in the case of industry and mining, and transportation and labor, the entire allotments made as of July 1956 plus some of the allotments made during the following year, were spent as of July 1957. However, this still leaves $5.5 million not spent a year after the funds had been allotted.

There are various reasons for this lag between the time funds are allotted to a project and the time they are spent. Sometimes it is due to the delay of the arrival of the United States experts and/or the equipment needed for a project. At times it is due to technical difficulties and to the fact that in some cases investigations have to be made before a project can be embarked upon. The lapse of time is also sometimes due to the failure of Lebanon to carry out its part of a project. This last situation is improving, however, such that at the beginning of the Program the difference between allotments and actual expenditures was much greater than it is now. In 1953, for example, no allotments were made due to the fact that most of the funds allotted in 1952 had not been spent during that year and were therefore carried over to the following fiscal year.

D. Point IV and Agriculture

Another criticism made about the Point IV Program is that aid is dispersed over many fields of activity, instead of being concentrated on one sector, and thus that it is not creating progress in any of the sectors of the economy due to the indivisibility of investments.[1]

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1. Middle East Economic Digest, November, 29, 1957, p.8.

This accusation is wrong since during the application of the program up to July 1956, considerable emphasis was made on agriculture with more than 40 per cent of the funds allotted to agricultural projects.[1] It is true, however, that this emphasis decreased during 1956, when only 22 per cent of total funds were allotted to agriculture.[2] The reason for the proportional decrease in aid to agriculture is that the program has reached a level where less aid on the part of the United States was necessary. Equipment, cows, and poultry have been imported; the Terbol farm has been handed over to the Lebanese Government; the Ministry of Agriculture has been reorganized and some of its members have received training; and in general the responsibility of the Point IV Agricultural Program is in the process of gradually shifting from the Mission to the Lebanese Government.

It is interesting at this point to assess the degree to which the Mission has emphasized agriculture during the years under discussion. Between 1952 and July 1956, 43 per cent of the technical assistance funds were allotted to agriculture, and if special economic assistance is included then agriculture received 45 per cent of the total United States aid given to Lebanon.[3]

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1. Calculated from last table in Chapter Five.

2. Ibid.

3. Ibid.

The position taken by the Mission of emphasizing agriculture in its overall program can be defended on several grounds. This sector receives less government support than other sectors of the economy such as trade and industry. Since the Mission has to integrate its development program with that of foreign agencies and with that of the Lebanese Government, it is turning its attention to an important but comparatively neglected sector of the economy.

Another cause underlying the Mission's choice of policy is that the program for development of the agricultural sector, if effective, can have a considerable impact on the total economic development of the country. If the entire rural population were affected by this program, more than 50 per cent of the population, representing the rural community which has probably the lowest income per capita of all the sectors of the economy, would experience a rise in income. If the national income rises in a country, and if the rise is associated with the increase of the per capita income of a large portion of the population, then the increment in the national income can be taken as a sign of development coupled with welfare. If, however, the increment is due to the increase of per capita income of a small minority of the population, leaving the rest at, or near, subsistence level, then the increment is not an appropriate index of development.[1]

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1. See Frankel, H.S., The Economic Impact on Underdeveloped Societies, 1953.

The rise of agricultural production can also have an impact on the balance of trade of the country in that it may reduce imports and increase exports of food products. Lebanon will probably never be able to supply all the food necessary for local consumption, but a substantial improvement in the balance of trade may possibly be achieved.

At this point of the discussion it is worthwhile to question whether the Mission's agricultural program is actually contributing to the rise of agricultural production and the development of the Lebanese economy. It is, however, difficult to measure the effect of the program on the economy of the country. One way of doing so is to try to measure the private investment which arose in the agricultural sector as a direct result of the Point IV Program. However, private investment, important as it is, even if it could be accurately computed is not a good criterion for representing the benefits arising from the program, since some slight changes in agricultural methods involving an insignificant amount of investment on the part of the farmer, may have had significant impact on the agricultural productivity of the country.

For instance, the artificial insemination centers give farmers the opportunity to breed their cows, whether they are pure or local cows, with the best bulls in the world, for only LL5. The result is that farmers are provided with very good quality of cows for a nominal sum of money. Without the artificial insemination centers farmers wishing to improve the breed of their livestock would have to invest a considerable

amount of capital in imported bulls. From the beginning of the artificial insemination project until the end of 1956, 2,517 cows, and in 1957, 2,157 additional cows were serviced by the centers.[1]

Another example of a minimum amount of capital investment having a significant impact on the quality and quantity of agricultural products is the introduction of new varieties of crops and seeds by the Mission's horticulturists. These new varieties which were chosen through experimentation, as to their adaptability to the country's climate and requirements, improved the quality and increased the yield of certain crops. Thus the yield per hectare of corn was doubled owing to the introduction of American hybrid corn, and the yield of wheat was increased owing to the introduction of new wheat seeds. The season of certain fruits was lengthened because of the introduction of new types of fruits and seeds. In the past, peach trees bore fruits only in August, while the new kind of peaches introduced by the Mission grow from June 1st until August, thus increasing the season for peaches by three months.[2]

In other cases, however, considerable capital investment is needed in order to result in a strong impact on the economy of the country. In the following section, therefore, some cases where capital

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1. Maalouf, T., Table 'Artificial Insemination Project-Record of Cows Serviced', Agriculture Division, USOM/L, 1958, (unpublished).

2. Interview with Mr. T. Maalouf, Agriculture Division, USOM/L, 1958.

investments can be traced back to the Mission's program will be mentioned.

Considerable private capital investments were made in poultry and livestock farming since the beginning of the Program. Although not all of these investments can be directly traced back to the Agricultural Division's projects, it is of significance that Point IV contributed towards the improvement of the climate of investment in these fields and decreased the risks involved. The three major problems which confronted the potential poultry or livestock investor before the implementation of the Point IV Program were animal diseases, lack of proper animal feed, and lack of knowledge of modern and scientific poultry and cattle management. The Mission succeeded in eliminating poultry and livestock epidemic diseases and in decreasing parasites in these animals. Proper feed for poultry and livestock was introduced by the Mission and is now being used by Lebanese farmers. Farmers got intructions and demonstrations of proper management of poultry and livestock. The resulting improvements gave the market better-quality and higher-priced meat, more and bigger eggs, and a larger quantity of milk.

In 1952, poultry farming in Lebahon was on a very small scale. At present, however, there are 50 commercial poultry farms and approximately LL 5 million have been privately invested in large poultry farms since the beginning of the poultry project.[1] This amount does not

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1. Interview with Mr. T. Maalouf, Agriculture Division, USOM/L, 1958.

include numerous investments made by small poultry farmers. Between 1952 and April 1956, LL 300,000 were invested in enterprises where the advice of the Government and the Mission poultry technicians had been requested.[1] This includes substantial investments in housing, equipment and feeds necessary to make operations successful.

Since the beginning of the livestock project and until December 1957, approximately 400 holstein cows were imported, while in 1952 there were only 100 holstein in the country.[2] Due to the artificial insemination project there are now 885 pure bred cows in Lebanon and 5,000 cross bred cows and heifers. Investments were also made by livestock owners to improve facilities such as housing, feeding, handling milk and sanitation. There are now approximately 15 modern barns in the country, while prior to the program there were none.[3] Investments were also made in the production of milk and in 1955 LL 1.5 million were invested in the construction and purchase of facilities for increased production, processing and distribution of milk.[4]

Investments in agricultural machinery have also been made during these years, but it is difficult to estimate how much of it was due to

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1. Boyd, A.I., 'Report on Poultry Project for 1955', Agriculture Division, USOM/L, 1955, (unpublished report).

2. Maalouf, T., Table 'Dairy Cattle Record-Pure Bred Holstein Cows in Commercial Barns', Agriculture Division, USOM/L, 1958, (unpublished).

3. Ibid.

4. Cannon, C.Y., 'Report on Animal Husbandry Phase', Agriculture Division, USOM/L, 1955, (unpublished report).

the influence of machinery demonstrations and courses given by the Mission. Imports of agricultural machinery increased from LL 1.3 million in 1952 to LL 2.8 million in 1956.[1]

It is of importance that the Mission's experts have tried to find machinery which is adaptable to the terrain, climate, and soil, of the country, instead of simply importing modern machinery used in the United States. For example, it was found that the type of plow which has been used for centuries in Lebanon is the most practical and useful one to use in this country. The type of plow largely used in the United States is not suitable for Lebanon because it takes moisture out of the soil and thus can only be used on soil which receives frequent rainfall. The Mission's experts have, therefore, adopted the Lebanese plows to tractors which are imported from the United States.

Point IV participation in irrigation projects is also contributing to the intensification and raising of productivity of agriculture: The investigations of the minor river basins in Lebanon, made by the Natural Resources Division, provide data for future irrigation schemes. The Litani River Project, for which the Mission made preliminary investigations, and the Kasmie Irrigation project completed by the Mission, either have increased or will increase the irrigated area in the country.

Although the Litani River scheme is not a Point IV project, the Mission has made a considerable contribution towards its progress since

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1. Ministry of National Economy, Bulletin Statistique Trimestriel, 4th quarters of 1952 and of 1956, p.30.

the Litani investigations enabled Lebanon to receive a $27 million IBRD loan for the first phase of the project. The estimated cost of the entire scheme is $43.5 million and it will take 25 years to be completed.[1] The project will increase the irrigated area of Lebanon, which in 1954 was 48,000 hectares, by 18,900 hectares of fully irrigated land and 2,900 hectares of partially irrigated land.[2]

The Kasmie irrigation project, which was begun under the mandate and completed by the Mission in 1957, brought 6,000 dunums of land under irrigation.[3] The rise of land productivity will be considerable due to the presence of newly irrigated land. Under dry farming only one crop per year is successfully grown in this area while under irrigation a combination of either bananas and citrus fruits, three vegetables, or grain crops, can be grown. The principal crops grown under dry farming in this area are wheat, barley and broad beans. The emphasis in newly irrigated land is mostly on bananas and orange groves. Increased productivity of the land will not be apparent immediately because it takes 6 to 8 years for an orange tree to mature. However, banana shoots planted in February will produce fruits the following November.

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1. International Bank of Reconstruction and Development, Twelfth Annual Report, 1956-1957, Sept. 1957, Washington D.C., p. 34.
2. Middle East Economic Digest, April 5, 1957.
3. Snider, "Status of Technical and Economic Assistance Programs", Natural Resources Division, USOM/L, April 6, 1956, (unpublished report).

The rise of the productivity of the land is the most important outcome of the project since the area to be irrigated is not especially large, and assuming the correctness of the Village Survey's rough estimate of 20 to 30 dunums of irrigated land as being the suitable size of family farm in this area, this project could provide irrigated land for only 240 families.[1]

During the years of Point IV in Lebanon, the Ministry of Agriculture spent approximately the same amount on the agricultural projects as did the Mission, which is LL 5.7 million, or LL 1.4 million per year,[2] while prior to 1952 the entire Ministry's annual budget was less than LL 1 million. The fact that the Ministry's personnel have been trained in Agriculture through either the program of participants, counterparts, or courses given, has made the Ministry prepared to gradually take over the Point IV agricultural program. The Terbol farm is now entirely run by the Ministry with favorable results, although a major crisis was suffered in the poultry unit which could only be solved through the cooperation of the Mission's division. The head of the artificial insemination centers is a Lebanese who was sent to study in the United States.

E. Point IV and Industry

The Mission did not stress the development of industry as much as that of agriculture. Allotments to the Industry and Mining Division as

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1. Ibid., p. 30.

2. Interview with Mr. T. Maalouf, Agriculture Division, USOM/L, 1958.

of July 1956, amounted to $1.0 million as against $4.7 million to agriculture, while actual expenditures on industry as of July 1947, were less than half of the expenditures on agriculture. Allotments to the Education Division were also slightly higher than those to industry. Although financially the Mission's industrial program is only third in importance, it will most probably prove to be of considerable benefit to the industrial sector and to the Lebanese economy as a whole.

Although the industrial sector employs only about 11 per cent of the working population, and thus it would seem that only a small segment of the population would benefit from the development of this sector, it has the potentiality of affecting a large segment of the population. Industry is more labor-intensive than agriculture and trade, and thus, if developed, it would decrease unemployment in the country, which is estimated to be between 30 and 40 thousand,[1] and alleviate underemployment in agriculture and thus raise productivity per worker in this sector. The development of the industrial sector may also decrease imports of industrial goods and may eventually add to the country's export trade.

The industrial sector can be developed, not only by establishing new industries but also through improvement of the existing industries though lowering their costs of production, improvement of the

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1. Asfour, E., "Industrial Development in Lebanon", Middle East Economic Papers, 1955, Beirut, p. 2.

quality of goods produced, and in general increase in the effieiency of production. The present industrial establishments are faced with problems of competition of foreign goods which are usually of superior quality, of high cost of power, and of limitation of the local market. Industrial establishments in this country are on the whole too small to afford industrial research and extensive market surveys and labor training, and thus have difficulty in improving their efficiency and increasing their productivity.

The Industry Institute, established by the Mission together with the Lebanese Government and the Association of Lebanese Industrialists, should make a considerable contribution towards the development of this sector, although it is still too early to judge the impact it has made on the economy so far. The fact that the Industry Institute provides managerial and technical advice for fees that are calculated on the cost-incurred basis and that can be paid by installment, makes it possible for industrialists to use the Institute's services and thus improve the efficiency of their establishments with minimum capital expenditures on their part. The cost of such advice is considerably lower than the amount industrialists would have to pay for experts imported from abroad. As of April 1956, technical consultations were given to individual industrialists at their request, on such matters as the production and bottling of concentrated fruit juices, the production of carbonated soft drinks, and on operational problems of a vegetable oil and soap factory.[1] The manage-

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1. Industry Institute, Annual Report - 1955, p. 8.

rial department of the Institute has made market research on dairy products, iron and brass castings, cooking fuel, and handicrafts for Lebanese producers and UNRWA. It has also made an industrial engineering survey of a Lebanese textile mill and a general survey of management problems for a soap and vegetable factory.[1] All of the above surveys have tended to improve the methods and efficiency of the respective enterprise.

Industrialists also have the benefit of information which is made available to them free of charge through the Institute's extensive library and its question and answer programs in which industrialists can have answers to questions covering technical industrial problems. Although the Institute had difficulty at first in arousing the interest of Lebanese industrialists in its various services, requests for advice and information have been increasing.

In addition to the benefits made available to the industrial sector by the Institute, the problem of the shortage and high cost of electrical power will be solved when the Litani project, for which the Mission made preliminary investigations, will be completed. The harnessing of the river for electrical power will provide annually 626 million kilowatt hours[2] of energy as compared with the 181 million kilowatt produced in 1954.[3] This will provide more than enough power for both industrial and domestic use at a low cost of approximately 3 piasters per kwh.[4] Cheap power will

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1. Ibid.
2. National Litani Office - Interview.
3. Middle East Economic Digest, April 5, 1957, p. 6.
4. National Litani Office.

lower the production costs of industries which at present either suffer from a power shortage or have to depend on their own small and often uneconomic power units. Cheap and abundant power may also encourage the establishment of new industries. Besides being beneficial to industries, increased power at low cost will help the development of agriculture by providing power for irrigation pumps and will cover domestic needs which are high partly owing to the extensive Beirut hotel trade.

Another industrial project, smaller in size than the above, which will also benefit the economy of the country, is the handicrafts project. By finding handicraft markets abroad, the handicrafts center, which was established by the Industry and Mining Division, raises the renumeration of handicrafts producers.

Considerable delay has taken place in the implementation of the two other rural industrial projects, namely the solar salt and olive oil projects, and thus no benefits from these projects are as yet apparent.

F. Point IV and Road Development

One project in which the Mission is participating and which, if successful, will be of great benefit to the economy of the country, is the road development scheme. However the Mission has had various difficulties in giving assistance to the Lebanese Government on their five-year road development plan. The plan itself of improving the road system is of considerable importance to the economic development of the country since Lebanon without an adequate railroad system or an inland waterways system

has to depend on roads as its principal means of transportation. Road development has not kept pace with the rapidly expanding economy of the country. The Mission's role in the plan is to provide 60 per cent of the equipment necessary for implementation of the plan and technical assistance on small parts of roads being built for demonstration purposes.

Thus the Mission has given technical assistance for the building of the Beirut-Maameltein highway, which is almost finished and is part of a planned divided coastal highway. The highway itself is to replace a narrow winding road and is of importance because it connects Lebanon's three ports, namely Beirut with its international harbor and free zone, and Tripoli and Sidon with their pipeline terminals and oil refineries. The cost of transportation and transport time will be considerably reduced along the coast once the highway is completed.

However, the part of the Beirut Maameltein highway which was built with the assistance of the Mission, cannot support heavy vehicles due to the fact that inadequate material, contrary to what had been agreed upon, was used in construction.

The Mission have also built a feeder road, as a part of the Sanneen rural development project which was discontinued, connecting the Sanneen area in the Mountains to a main road leading to Beirut. This road enabled the Sanneen area farmers to have easy access to the Beirut market in order to sell their fruits. Previously the fruits of this

area, which are of exceptionally good quality were often wasted due to the difficult accessibility to the market.

G. Participants and Counterparts

One of the most essential aspects of the Point IV Program, as of any technical assistance program, is to prepare the participating country to carry on the various projects after the departure of the American experts. If a project cannot be continued by the Lebanese after it has been handed over to them, then the long run impact of the project will be limited. The Mission has been training Lebanese through the participants and counterparts programs and by giving courses on various subjects to government employees and to others.

The system of sending Lebanese trainees, or participants, to study various subjects abroad, either for fitting them into a Point IV project or for making them more efficient in their present jobs, is one of the most effective ways of spreading technical knowledge throughout the country. Various problems, however, have arisen in the implementation of the participants program.

Not all the participants who have returned from their studies abroad were able to help their country. In some cases they were filled with enthusiasm for their work and had a strong desire to improve conditions in their field of activity. However, after meeting many obstacles in their work, they have often been discouraged and abandoned their attempt towards improvement. A few others married Americans while studying, with the result that they came back to Lebanon only to return

to the United States to become American citizens. Others have returned to Lebanon to find that their former job in the government has been taken by someone else and that they have to find their means of livelihood elsewhere, not infrequently outside their field of training.

One such case was that of the head of the Beirut traffic police, who was sent to the United States on the recommendation of the Lebanese Government, to study the American traffic system. When he returned to Lebanon he found that his position had been given to someone else. This situation made him incapable of implementing any new traffic regulations he may have learned while in America.

There have been some participants, however who have managed to apply their newly acquired knowledge brilliantly and are presently engaged in work for which they have been trained. Such is the case, among others, of the head of the statistics department in the Ministry of Education, several technicians in the Industry Institute, and the head of the main artificial insemination center at Sinn el Feel.

The Mission, in order to increase the proportion of such successful participants, recently changed its policy in this type of activity. Previously the Mission paid all the expenses of the participants and no guarantees were made by the Lebanese Government of giving the trainee on his return the position for which he has been trained. According to the new policy, the Lebanese Government is obliged to pay the transportation cost to and from the participant's place of study and to continue paying his salary while he is studying.

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This policy was enforced by the Mission because it was felt that due to the fact that the Lebanese Government had made a certain investment in the participant, they will want their investment to yield returns. Consequently, the Government on the termination of a participant's studies, would be more likely to give him his former position with possibilities for promotion. The result of the new policy has been a decrease of the number of participants recommended by the Lebanese Government. It is likely, however, that now the participants will be given more opportunity to be effective on their return.

The system of American Point IV employees training Lebanese counterparts while on the job is also an important means of spreading technological knowledge throughout the country. It enables the Lebanese Government to continue projects which have been initiated by the Mission and also start work on similar projects on their own. In theory the system of counterparts should be beneficial to Lebanon but in practice it is not always properly implemented. American technicians are often not provided with a counterpart either because of the lack of a qualified person available, or of the fact that the Lebanese Government cannot spare such a person. Frequent changes of counterparts working with one technician also create an obstacle for the effective implementation of the system. It is useless for an American technician to spend time teaching his counterpart only to have him transferred to other duties when he is beginning to be well trained for the job. Some counterparts, however, have been on the job for a significant period of time, such as the veterinary counterpart who served from 1952 to 1955.

III. Point IV and Lebanese Politics

One of the primary reasons for the United States having embarked on a technical assistance program for underdeveloped countries was to prevent the spread of communism in these countries. The combatting of communism was constantly used as an argument in favour of the Point IV Program by Congressmen when foreign aid legislation was being discussed. It was believed that the strengthening of the economies of underdeveloped countries is advantageous to the free world in the respect that it would win the peoples of these areas to the cause of the West rather than having them slide into communism.[1] Therefore the question to be answered is whether the Point IV Program is achieving this objective in Lebanon.

It is the belief of the writer that the Program has not had any significant influence on the political opinions prevalent in Lebanon. First of all, as has been mentioned in Chapter II, Lebanon is already prone to be pro-West due to its free enterprise economy, trade, location, and its contact with the West and Western culture. The danger of communism in this country is insignificant.

Secondly the Program tends to create resentment against the United States amongst some groups in Lebanon. Resentment is usually prevalent among those who have absolutely no contact with the Mission itself, but are merely distant observers, and is sometimes due to the fact that Americans

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1. United States Congressional Records, 1951, p. 2224.

tend to avoid, whether intentionally or due to circumstances, mixing socially with Lebanese people and thus it is felt that they consider themselves to be superior. The Mission's American employees and Americans of various firms are also often blamed for the rising rents in Beirut. It is argued that both the fact that Americans do not bargain over the rent of an apartment and also that the demand for apartments has risen due to their arrival, have contributed to the rising rents in the city. Many Lebanese resent the program because they believe that the Mission has not accomplished anything in this country. Although Point IV activities are extensively publicized, they are largely unknown except to those directly affected by a project.

The Lebanese who tend to become pro-American due to the Program are employees of the Mission, those who are directly affected by Point IV activities, and participants who were sent to the United States.

In general, however, the Point IV Program has very little to do with the attitude of the Lebanese people towards the West and Communism. Lebanese opinion of the United States is primarily based on America's foreign policy. An unfavorable act in the eyes of the Lebanese, made by the United States in its foreign policy, will tend to lower opinion of the United States in this country, which cannot be remedied by Point IV activities.

IV. CONCLUSION

Although it is virtually impossible to measure the impact of a technical assistance program on the economy of a country, certain conclusions can be made about Point IV in Lebanon.

One of the dangers of a technical assistance program about which economists writing on the subject tend to warn the United States, is that American experts may have the tendency of trying to transplant techniques used in the United States to an underdeveloped country without taking into consideration the country's factor endowments and needs.[1] In reference to this problem, counterparts can play a major role in orienting the American expert about the country in which he is working. This problem, however, does not seem to exist in Lebanon. For instance modern agricultural machines were tested as to their adaptability to the country and in at least one case, it was found that the tools already being used in Lebanon were the most practical ones for this country. Various kinds of crops were tested as to their adaptability to the country's climate and topography. The Industry Institute has also made studies on certain specific problems of Lebanese industrialists.

Certain characteristics, mentioned previously, inherent in the social and economic structure of Lebanon facilitate the implementation of the Point IV program in this country. The most important one, however, is that the Lebanese are eager to develop their country. In the words of President Truman, "The major effort in such a program (Point IV) must be local in character, it must be made by the people of the underdeveloped countries themselves."[2]

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1. See, for instance, Baster, J., "A Second Look at Point IV"; American Economic Review, Papers and Proceedings, 1951, pp. 399-415.

2. President Truman's Message to Congress on 'Point IV Legislation', 1949, Annals of the American Academy of Political and Social Sciences, 'Aiding Underdeveloped Countries; March 1950, Appendix.

In spite of these advantages, certain difficulties arose in the implementation of the Point IV Program in Lebanon due to various factors. Counterparts were not always available for American technicians and some participants returned to Lebanon to find their jobs for which they were trained, unavailable. A considerable lag of time has taken place between the financial obligations made in Washington and the actual expenditures of these funds. It was also found that Lebanon, together with the other Arab countries, receives a disproportionately small amount of United States funds as compared with Israel.

The Point IV projects which have had, or which potentially have a considerable impact on the Lebanese economy are the Agricultural projects and the Industry Institute. From 1952 to 1956, more than 40 per cent of the United States obligations were for projects affecting the agriculture sector. Although some of them were unsuccessful, on the most part they were beneficial to this sector of the economy and tended to increase the quantity and improve the quality of agricultural produce, and to improve the climate for agricultural investments. In 1956 the proportion of funds allocated to agriculture was less than during the previous years since this phase of the program is gradually reaching the stage when it will be taken over by the Lebanese Government. The Industry Institute, on the other hand, may prove to be a considerable contributor towards greater efficiency and output in industrial production, and may encourage the creation of new industries, through its free advice, and private consultations given on a cost-incurred basis. If the industrial sector becomes more developed it may alleviate the population pressure and increase national income.

The important test of the Point IV Program will be whether the Lebanese have profited from the technical knowledge they have acquired from the Mission's experts and whether they will continue to apply their knowledge once the program is discontinued.

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