The agrarian reform law of 1958: a catalyst for economic and social development in Iraq

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THE AGRARIAN REFORM LAW OF 1958: A CATALYST FOR
ECONOMIC AND SOCIAL DEVELOPMENT IN IRAQ

by

Kahtan Abbas Al-Yasiri

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CHAPTER I. INTRODUCTION

On September 30, 1958, the Iraqi Agrarian Reform Law was enacted by the Revolutionary Government which came into office July 14, 1958. To the fallahin (peasants) of Iraq, this law is perhaps the most important action in the history of the country. However, this reaction may not be limited to the fallahin who are benefiting directly from the law; it is shared by professional workers* within the country who are interested in Iraq's economic and social progress.

The law is designed to remedy the concentration of power and the attending economic and social consequences due to the control of a few families over the land under the land tenure system which existed in Iraq before 1958. This system stems from the inequality of opportunity for acquiring land during the Ottoman rule in Iraq between 1514 and 1918 and which continued to exist (under British domination) until 1958 (111, p. 157). The system resulted in 80 per cent of the land being owned by less than 2 per cent of the proprietors, while more than 87 per cent of the proprietors held only 6.5 per cent of the land (9, p. 381). The 1958 Law constitutes a landmark in Iraq's history, promising changes from feudalism to private enterprise; from serfdom to emancipation; from economic stag-

*This reaction has been emphasized in the writings of Alwan (4 and 5), Qubain (90), and Hammadi (43).
nation toward economic development; and finally, from adversities to opportunities for the fallahin (peasants) to improve themselves.

In view of the importance of this law which has been in effect seven years, this study will endeavor to analyze the various aspects of the reform, its objectives, and its contribution to economic and social development, as well as to political stability in Iraq.

Concepts and Definitions

Such terms as agrarian reform, land reform, economic development, and underdeveloped countries, and related terms are widely used; however, as Jacob Viner (132, p. 94) asserts the literature is lacking in explicit definition of the basic terms it employs. The meanings of various concepts which are used in this study, and their sources are listed below:

Agrarian reform is defined by Professor Thorbecke to include changes in rural institutions with the objective of improving rural standards of living.

These institutions include those of holding and transmitting rights in land, allocating returns to land between owners and tenants, extending credit for land purchase, farm operation and improvements, taxing land values and land income, conserving and developing agricultural and other resources, marketing of farm and other products, broadening opportunities for educating and training rural people and promoting rural health and welfare services. (105, p. 590)

However, these means, according to Dr. Thorbecke, are not all
institutional in character, since certain means, such as public investment in fertilizer plants and irrigation projects which would presumably come under conservation and development of agricultural resources—are not structural or institutional changes in the same way as changes in land tenure. The term 'reform' in this respect connotes changes in the foundations or institutions of an economy and in thus exclusive of changes in quantitative means, or instrument variables, which are under the control of the policymaker and which do not necessitate changes in either the structure or the institutions of the economy. (105, p. 590)

In this study, agrarian reform means changes in the structure of agrarian institutions to improve both the efficiency of agricultural production and the distribution of factor returns as means of achieving both the economic and non-economic ends of agrarian development. Agrarian reform may be undertaken to promote agrarian development by reaching either one or both of two effects:

(1) an increase in per capita income and welfare and a more widespread distribution of total agricultural income because of increased efficiency of production through institutional adjustments; or
(2) an increase in per capita welfare arising from a more widespread distribution of the control over the resources used for agricultural production, providing farmer resource owners are adequately compensated. (40, p. 121)

Agrarian (or rural) development will also mean the planned process that uses any type of action designed to affect the institutions, techniques, environment and minds of the rural population in such a manner as to raise their standard of living and improve their way of life (7, p. 29).

Land reform is thought of as reforms where the objectives
and scope of the reforms refer principally to redistribution of ownership rights in land. Gittinger considers land reform as a reorientation of the control of land (40, p. 236). Land reform, generally speaking, involves a transfer of the ownership rights in specific parcels of land from individuals holding larger amounts than they themselves can farm in the existing agricultural tradition of the area, to peasants who hold by virtue of the reform no more than the amount they themselves can cultivate. In addition, Gittinger suggests that land reform may also involve consolidating and rationalizing scattered lots of land belonging to various owners (40, p. 236).

**Agrarian reform measures** refer to any governmental, economic, or cultural measures that improve the economic and social well being of rural population, without diminishing the aggregate welfare of the non-rural population (80, p. 17).

**Agrarian structure** is used to mean the institutional framework of agricultural production. It includes land tenure, the distribution of ownership of farm property between large estates and peasants, forms of credit, agricultural marketing, rural taxation, and governmental services of the rural population (129, p. 5).

**Land tenure** refers to the economic, legal or customary arrangements regarding the ownership and management of agricultural land.
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Land tenure refers to the economic, legal or customary arrangements regarding the ownership and management of agricultural land.
Land tenancy refers to a type of tenure under which land is leased and its product divided (129, p. 5). Moreover, tenancy will refer to the form of agricultural tenure in which the actual cultivator has no rights, or limited rights, in the land which he works and upon which he lives. The two functions of ownership and operatorship are separated. Ownership may be in the hands of a private individual, a group of individuals, a corporation or the State. We will mainly be concerned with the relationships and consequences that arise from allocating the rights and responsibilities of farm operatorship between private landholders and their tenants.

The process of allocating rights in land involves the transfer by the owner to the tenant of certain rights of possession and use for a given period of time. Such a transfer is usually accompanied by an oral or written agreement stipulating the conditions under which the property may be used. While the allocation of responsibilities or duties of each party involves the supplying and contributions of labor, capital and management as well as other costs and the sharing of income. It should be noted that tenancy covers heterogenous forms. There are cash-renting arrangements; share-cropping arrangements; and a mixture of both, share and cash.

Owner-cultivator will, according to Ackerman and Harris (1, p. 389), consist of the following characteristics: 1) The entrepreneurial functions endowed in the farm family. 2) The
human effort required to manage the farm provided by the farm family with the addition of such supplementary labor as may be needed during seasonal peak loads or during the developmental and transitional stages in the family itself. However, the amount of such regular outside labor should not furnish a total labor force in excess of that to be found in the family of "normal" size in the community. 3) A farm large enough, in terms of land, capital, technology, and other resources, to utilize the labor resources of the farm family efficiently.

Such a definition affirms the fact that the labor resources of a family farm are deemed to be employed efficiently when the returns for their efforts are equal to returns for comparable human efforts in other occupations.

Economic development, as used in this thesis, is a process in which the population of a country, "by conscious and active promotion" (11, p. 7), utilizes its human and physical resources to bring about a sustained per capita increase in the output of scarce goods and services; provided at the same time the distribution of these goods and services to the individuals of the nation does not become less uniform (40, p. 116). This is similar to Professor Back's definition of economic growth that refers to increases in total output of goods and services (or income) (8, p. 31). Professor Colin Clark (16, p. 111) expresses similar views concerning economic progress which he defines as an increase in the per capita
output. Although there are fine distinctions between those terms, they are in essence synonymous as used in this study.

Social progress is used here, as defined by Professor Timmons, to mean

... development of individuals as informed and participating members to the extent of their inherent abilities, in the economic, social and political life of a country. This involves providing the environment and opportunity for individuals to develop their potential talents with which they are endowed. (117, p. 7)

Political stability refers to orderly change toward social progress and economic growth which involves the maintenance of a minimum "stability threshold" sufficiently dynamic to accommodate change at a magnitude and tempo necessary in realizing social progress and economic growth (117, p. 7).

Underdeveloped countries refer to nations or geographical areas with low per capita real incomes. The exact level of income, while open to variation, will generally be considered as under 500 United States dollars per capita annually (47, p. 6). The terms underdeveloped, less developed, and developing will be used interchangeably in this thesis.

Appendix A contains definitions of Arabic terms used throughout the study.
Interrelationships between Agrarian Reform and Economic and Social Development

This study emphasizes the postulate that agrarian reform must be evaluated in terms of overall economic development. According to Raleigh Barlowe, economists use these terms in close association with each other. In this process of association, agrarian reform is treated as a necessary or desirable condition for economic development, although "it might also be viewed as a partial consequence of the development process" (10). This point of view was also expressed by James Gittinger:

No meaningful, sharp separation of economic development from agrarian development or agrarian reform is possible. In practice, the only separation comes simply because the vastness of the problem demands a small area of the whole complex be singled out for concentration if effort is not to be dissipated uselessly. At the same time, a recognition of extreme interrelationships is necessary. Similarly, no time sequence can be meaningfully established. (40, p. 240)

By contrast is Dennis A. FitzGerald's point of view. He stated:

Economic development, upon which rests the hope of the mass of the people for better living in the broadest sense of the term, is at once an essential prerequisite to (agrarian) reform and a partial consequence of it. In this country we have a saying--for which nobody has a concise answer, namely; 'Which comes first, the hen or the egg?'--we do not need to answer the question of which comes first, economic development or (agrarian) reform. (36, p. 385).

Professor John F. Timmons also expressed a similar opinion.
He stated:

The generalized role of land tenure structures in agricultural and national development is to facilitate and not hinder the achievement of developmental goals set by and for a country. In as much as the agricultural sector in less developed countries usually employs a large proportion of the population and incipient population increases outside of migration and relatively greater in this sector development results within agriculture weigh heavily in achieving national development through productivity per worker, capital formulation, providing laborers for other sectors and generating markets for non-agricultural products and services. (117, p. 8)

The nature of economic processes as will be demonstrated by the conceptual framework in Chapter III is such that agrarian reform measures must of necessity be considered in terms of their effects on over all economic and social development. Similarly,

The interrelationships among the institutional forms of rural society and between them and agricultural production are such that no one agrarian reform measure can be properly evaluated without considering its effects on other aspects of agrarian life. (40, p. 235).

For instance, a land redistribution program must be planned and evaluated keeping in mind that credit may be necessary to replace the landlord capital as well as to enable the new owners-cultivators to organize their units for optimum production. Since the land redistribution program will draw on the general resources of the society and its effects will influence economic and social development, then the redistribution program must be evaluated in terms of the effect on economic and social development of the country as a whole (40, p. 235).
If for no other reason, agrarian development is vital to economic and social development of Iraq because 63 per cent (90, p. 54) of the population of the country are engaged in agriculture. It is difficult to conceive of economic and social development without including these people in the scope of the program.

The low levels of labor productivity in agriculture in Iraq is recognized, and is indicated by the low per capita income figure ($195) (90, p. 13). Nutritional levels in the country also are low. For example the caloric intake of food for three fourths of the population is only about 1800 calories per day (63, p. 73), as compared to 3200 in the United States (131).

With food consumption at such low levels, agriculture offers an important means to increase the per capita supply of goods, an important component of economic development.

An increased food demand would be among the first results of any increase in real per capita income which might result from economic development. Indeed, in most underdeveloped areas, economic development can hardly proceed at all without increased food production. (40, p. 242)

Agrarian reform appears necessary for the full development and use of modern science and technology in agriculture.

The most pressing needs therefore may be for an improved tenure system, the development of credit facilities--expanded for redirected educational programs, and the enactment of necessary legislation for an organizational setup suitable to carry on land development programs. (36, p. 387)
However, it has not always been to the advantage of agricultural and economic progress that problems of agrarian structure have been approached with well-formulated preferences for solutions which fit in a certain system of thought and not from the only decisive point of view, namely,

... which solution would under existing conditions secure to the man on the land an adequate standard of living from an economically-sized farm and assure him, at the same time, of a dignified place in his community and in society as a whole? (61, p. 11)

The perfect tenure system which unfailingly achieves agricultural efficiency and social well-being has never prevailed. At one time or another all tenure systems have been satisfactory or unsatisfactory under known conditions and in certain stages of economic development. Also, good and bad farming or progressive and regressive agriculture have been maintained under almost every realized form of land tenure. The final effect of a tenure system on agricultural development can be decided only by the extent to which it releases and increases productive energies of the population. But here also some caution is necessary. "Land problems exist which cannot be solved in terms of land policy alone, a fact which illustrates the interdependence between agricultural and general economic development." (61, p. 11)
The Problems Inherent in Iraq's Agricultural Structure

Since 1950 (90, p. 17) Iraq has witnessed the rise and growth of a desire for independence and individual freedom and a social strife for justice in wealth and income distribution. The feeling of "injustice under the existing economic system" (43, p. 1) has been growing stronger and stronger to such a point as to be the source of social unrest climaxed with several uprisings. The struggle was intensified by the intellectual development on one hand and the inflexibility of the wealthy ruling class on the other hand. The "public judgment attributes the injustice of the economic system mainly to the existing pattern of the distribution of agricultural land" (43, p. 2). The agricultural land tenancy system is considered, by writers such as Alwan (5), Hmadi (43), and Qubain (90), as the major cause of this "injustice", and land redistribution among the landless fallahin (peasants) has always been considered as the best solution of the problem.

As mentioned earlier, Iraq has been, and will probably remain for some time to come, a predominantly agricultural country. As indicated earlier, about 63 per cent (131) of its people depend on agriculture for their livelihood. Yet, the income from agriculture is only 40 per cent of the total national income (131). Thus, the country's agricultural sector is retarding national growth in terms of productivity per man and of output per acre. The country is so technically
underdeveloped that the 63 per cent of the population whose welfare depends on agriculture in the country can be attributed at least in part to the feudalistic land tenure system. Iraq is in a stage of land tenure which many advanced and some underdeveloped countries have passed; that is, the stage where a few chieftains and landlords (mallakeen) own and control most of the fertile lands. Under this system the peasants (fallahin) have little bargaining power; they work for wages or as sharecroppers for a powerful landlord. In most parts of the country, small farmers, sharecroppers, tenants, and farm laborers are held in the bonds of systems of land tenure that deny justice and retard progress. In Iraq, interest rates paid by the fallahin range from 20 per cent to 200 per cent a year. Rental charges reach up to 70 per cent or more of the annual crops (68, p. 70).

Objectives of the Study

The objectives of the study are as follows:

1. To test, conceptually, the major provisions of the Agrarian Reform Law of 1958 in terms of their ability to satisfy conditions which are necessary for a movement toward the objectives of the law.

2. To analyze the degree of consistency among the law's provisions towards the necessary conditions for economic development.
3. To investigate the effects of land reform measures on the social progress of the rural population in Iraq and to estimate the trends of the economic and social changes which have taken place in the country as a result of the Agrarian Reform Law.

4. To suggest improvements in the law on the basis of the conceptual analysis.

5. To suggest further research needed to analyze more adequately the provisions of the law.

Procedure of the Study

The study will attempt to examine the results of the established provisions of the Agrarian Reform Law with respect to its stated objectives and to suggest improvements. Furthermore, the study considers the "mean-ends continuum" as an ordinal process in which the ends of the Iraqi society are systematized. This is presented in Appendix C. The agrarian reform objectives occupy a subordinate position with respect to the "end-in-view" of economic development. That is to say that agrarian reform is necessarily a means for attaining the agrarian and economic development ends-in-view.

All the data and information that have been considered in making this study were explored and handled in such a way as to present relevant materials on the subject.

A framework for organization, analysis, and interpretation
of the information is developed and presented. This framework (Chapter III) is for conceptual analysis. It helps reveal probable economic relationships and thus form an indispensable framework to which the other relationships can be attached.

The available data are meager, and in particular empirical data for testing our model are almost non-existent. However, we shall supplement the meager empirical data relevant to our analysis with analytical and brief descriptive data.

The Significance of the Study

Agrarian reform is historically important in determining the course of nations as had been strongly stressed in revolutionary changes which have taken place in the past decade. There is an awareness that basic agrarian problems are a major hinderance to economic and social development and that reforms are urgent. Special attention and recognition were given to the problem by officials in the United States. In the opinion of the United States Government, "agrarian reform" means changes in rural institutions with the objective of improving the level of rural living. United States officials have revealed that American people are greatly disturbed by what is happening in Asia, the Middle East, and Latin America. Americans realize that part of the unrest in these countries can be traced to insecure and inequitable land tenure. Among the American public there is a recognition that land ownership,
security of tenure, and equitable landlord-tenant arrangements are part of the basic structure of the United States democratic institutions. Americans believe in the family size farm. This is the basis of American agriculture which has also influenced the country's form of government (13).

It is believed that the United States authorities hold that the land on which a man works and makes a living ought to belong to him. It seems that the United States Government is willing to assist developing countries in established "agrarian reform" programs and helping them accomplish their goal. The late President Kennedy in his March 22, 1961, message to the Congress of the United States, proposing a new Foreign Aid Program, expressed that it is necessary that the developing nations have balanced programs which utilize their own resources to maximum and that,

The first requirement is that each recipient government seriously undertake to the best of its ability on its own those efforts of resource mobilization, self-help and internal reform including land reform, tax reform . . . .

Baleigh Barlowe indicated that as an action program, agrarian reform is new to many countries.

But the problem itself is not new. Conditions that give rise to demands for reform have existed for decades, if not centuries. Peasants' discontent and precedents for reform have existed since the dawn of civilization. Only the techniques of reform and the will for action are new. (10, p. 173)

The implication here is that agrarian reform is of fundamental
importance in a consideration of economic and social development of a basically agrarian economy like that of Iraq.

At this point, we might ask: What is the importance of agrarian reform in Iraq? In answering this question we must remember that throughout the preceding pages we have mentioned that agriculture in Iraq is and traditionally has been the dominant industry. Next to oil, agriculture is the leading source of production and wealth in the country and not unfrequently provides the basis for the prevailing pattern of income distribution. In Iraq, land is considered as the sure ground and the most favored type of investment. Mallakeen (landlords) control the major portion of the land.

Among the fallahin, bulk poverty is a well-known problem and life is abominable. The average fallah proprietor has only a small fragmented holding that does not exceed five acres, and his great ambition is to secure more land. This land hunger and the great number of landless laborers only serve to advance the status of and the consequent advantages enjoyed by the mallakeen.

Given an agricultural economy such as this, agrarian reform provides for one of the more promising means to improvement. The general effectiveness and the mass appeal of agrarian reform as a leveling device in redistributing the basis for wealth (10, p. 174) make it a popular and potentially powerful tool for social and economic advancement.
The revolutionary government of Iraq decreed its Agrarian Reform Law on September 30, 1958, with a view to rebuilding Iraqi agriculture as well as the rest of the economy. The government advocates land reform as an overall movement toward economic, social, political, and national advancement. The late Prime Minister of Iraq, Abdul Karim Qasim, stated clearly the significance of this Law during a speech broadcast over Baghdad Radio on the Law's launching day. He said: "(It) aims at achieving social reform, insuring justice for all, and freeing the people from poverty, fear, illiteracy, and disease."

From the preceding discussion, we may generalize that land in Iraq does not merely signify ownership, but it symbolizes the freedom of those who work it. In view of the serious consideration and the major emphasis the subject has received in recent years, the problem of agrarian reform as related to economic and social development of the rural population is of extreme importance.

Plan of the Thesis

For the sake of exposition, the thesis can be divided into three main parts. The first part provides a framework of the situation in Iraq prior to the enactment of the Agrarian Reform Law of 1958. In the second part the Law is presented and discussed. The third part deals with the presentation and
discussion of the expected consequences of the Law.

In Chapter II, the economic and social position of Iraq before the Law is analyzed, with special concentration on property in land, its evolution, and land distribution. A section of the chapter is devoted to the study of the demographic position of the country.

In order to institute some foundations for subsequent analysis, Chapter III is devoted to the study of the strategy and policy of economic development in developing countries. A conceptual framework for a reasonably plausible theory of economic development is presented in this chapter with special application to Iraq. No attempt is made for empirical applications because of the lack of adequate statistical information. However this framework may be used as a model for testing and evaluating the impact of the agrarian reform program in Iraq upon economic development, and to specify the relevant data which is needed to complete the analysis.

In Chapter IV the study of the Agrarian Reform Law of 1958 and its provisions will be presented. Objectives and stages of execution of the Law are included.

The objectives of the Agrarian Reform Law are restated in terms of economic objectives, objectives of distributive equality and political objectives, and analyzed in Chapter V. A section of Chapter V is devoted to the discussion and observation of the prevalence of farms on which the family
provides the bulk of the labor and makes a major share of the day by day management decisions. The family farm is presented as the "ideal" of the Agrarian Reform Law.

In Chapter VI the means of supporting the agrarian reform program in Iraq are presented. Special attention is given to mechanization of agriculture, agricultural credit, and cooperatives. All of these are immensely important for increasing the efficiency of agriculture and the rate of capital formation, as well as for combating the problem of unemployment and underemployment.

Chapter VII will concentrate on the expected effects of agrarian reform on economic and social development in Iraq. A brief description of changes in economic social conditions and change in attitude will be offered as permitted by limited data availability.

The presentation of the thesis is concluded in Chapter VIII, which is designed to state the conclusions and findings of the study.
CHAPTER II. THE SITUATION BEFORE THE AGRARIAN REFORM LAW

Before studying agrarian reform in Iraq and its role in the social and economic development of the country, it is essential to examine the situation in Iraq before the establishment of the Law. In this setting the country's tenure system, demographic position and the Land Settlement Law of 1951 will be reviewed.

General Aspects of Iraq

Iraq is a newly independent country progressing from a condition of underdevelopment. The country has impressive potentialities for economic development. With a total population of about 7,000,000 and an area of 174,000 square miles, Iraq is sparsely populated in relation to its resources (131). Nature has provided the country with abundant fertile lands and water resources. The Tigris and the Euphrates are the sources of ample water for irrigation and human consumption. The twin rivers and their tributaries carry almost 70 billion cubic meters of water per year (5, p. 46). Such a high quantity of water could irrigate vast areas of lands; but nature has not chosen to regulate these water resources when and where required. It is in the spring that much of the water in the rivers comes, when it is too late to benefit winter crops and too early for summer crops. And because of the absence of dams, every spring the twin rivers cause destruc-
tive floods, while in autumn their level drops so low as to make the irrigation of crops difficult.

The physical structure of land in Iraq is of two main kinds. These are the mountainous regions of the north and northeast, and the alluvial plain of the central and the south. The soil of the plain is fertile and needs only to be properly and adequately irrigated to produce rich crops.

In relation to the population and the land actually under cultivation, the amount of cultivable land available in the country is very large. The following estimates based on data supplied by the Department of Agriculture give some conception of cultivable land, crop land and land in agricultural use.

Table 1. Agricultural land use in Iraq prior to the enactment of the Law in 1958a

<table>
<thead>
<tr>
<th></th>
<th>(In millions of donums)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivable area</td>
<td>48.1</td>
</tr>
<tr>
<td>Irrigation zone</td>
<td>32.1</td>
</tr>
<tr>
<td>Rain fed zone</td>
<td>16.0</td>
</tr>
<tr>
<td>Area actually in crops</td>
<td>11.1</td>
</tr>
<tr>
<td>By area</td>
<td></td>
</tr>
<tr>
<td>Irrigation zone</td>
<td>7.6</td>
</tr>
<tr>
<td>Rain fed zone</td>
<td>3.5</td>
</tr>
<tr>
<td>By type of crop</td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td>8.4</td>
</tr>
<tr>
<td>Summer</td>
<td>1.9</td>
</tr>
<tr>
<td>Orchards</td>
<td>0.8</td>
</tr>
<tr>
<td>Area under cultivation</td>
<td>17.5</td>
</tr>
</tbody>
</table>

aData from (131, p. 27).
As mentioned in the *Agricultural Development Progress of Iran, Iraq and Sudan*, a report by the United States Department of Agriculture (131), as a result of certain climatic economic, and social obstacles, only a small part of Iraq's land, prior to the enactment of the Law, was cultivated each year, but much of the remainder is usable. Table 2 will show the land use in Iraq before the establishment of the Law. Note that about one-half of the land was wasteland. Also 27.2 percent of the land is potentially arable, but unfortunately for many reasons was not used. One of them was the lack of irrigation water and rainfall in those areas.

Table 2. Land use in Iraq prior to the enactment of the Law in 1958

<table>
<thead>
<tr>
<th>Use</th>
<th>Area (1,000 acres)</th>
<th>Percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural land</td>
<td>15,646</td>
<td>14.3</td>
</tr>
<tr>
<td>Cultivated lands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fallow and orchard</td>
<td>13,484</td>
<td>12.3</td>
</tr>
<tr>
<td>Permanent pastures</td>
<td>2,162</td>
<td>2.0</td>
</tr>
<tr>
<td>Forest and woodlands</td>
<td>4,394</td>
<td>4.0</td>
</tr>
<tr>
<td>Unused but potentially cultivable</td>
<td>29,899</td>
<td>27.2</td>
</tr>
<tr>
<td>Built on area, wasteland, and other</td>
<td>59,793</td>
<td>54.5</td>
</tr>
<tr>
<td>Total areas</td>
<td>109,712</td>
<td>100.0</td>
</tr>
</tbody>
</table>

aData from (131, p. 27).
Land Tenure System

The land tenure system in Iraq is the result of historical forces, tribal traditions, and legal concepts which have developed during the period while the country was successively occupied by the Abbasside, Turks, and the British. All of them contributed to the evolution of the land tenure system that existed before the enactment of the 1958 Law. The discussion of this evolutionary process is presented in this section.

The amount of cultivated land in Iraq before the enactment of the 1958 Law was inadequate for the needs of the population. Ownership or rights in productive land was highly prized and invested with traditional and social values often of much greater importance than the economic worth. Ownership of the means of production in agriculture was very unevenly distributed, resulting in wide disparities in income. Land ownership was by no means equally distributed. In Iraq there were many landless fallahin, while large landed estates, some exceeding several hundred thousand acres, predominated in the provinces of Amara, Kut, Muntafig, and Diwaniya.

Water for irrigation was supplied chiefly by wealthy mallakeen who had the means to install pumps. Also, the ownership and operation of modern agricultural machinery were primarily limited to the large mallakeen. Ownership of the decisive factors of production upheld with it the ability to
demand a large share of the output. In regions where rainfall is insufficient the pump owner, who was frequently the mallak, could prior to the Law exact from 30 per cent to 60 per cent of the crop for the water which he alone supplied (90, p. 80). Where labor is plentiful and rainfall sufficient, the mallak can get up to half of the crop simply by allowing peasants to cultivate his land. Where land was plentiful by comparison with labor, the owners of tractors and combines, who were frequently the mallakeen, controlled the central factor of production and could demand the majority share of the output (5, p. 306).

The fallahin had no capital or access to capital that would enable them to acquire more land, better livestock and machinery, pumps or other means of production by which to raise their level of living and make themselves independent. Nor were they organized in cooperatives to respond to these things collectively.

Simply put, the fallah was, on the whole, a subsistence producer; yet, he marketed an increasingly large proportion of his crops over time. He had been drawn reluctantly into the market economy, not by a desire for profit, but by his permanent need for cash. The fallah in Iraq received very little for his services. If a sharecropper, he gave close to one-half his crop to the mallak (42). If in debt, as he always was, the moneylender, who frequently was the mallak, may
seize an arbitrarily valued portion of his crop at harvest time. The fallah took what was left to the market at the earliest possible time since he needed the cash and also lacked storage facilities. Inadequate transportation forced the fallah to go only to the nearest market, where he sold as one of a large group of similarly stricken fallahin, and he sold to a small group of organized buyers. Consequently, he received the lowest price for his goods.

Iraq has great prospects of economic development through agricultural expansion. But to the development of these potentials the greatest obstacle was land tenure. In Iraq, land tenure is a product of the interaction of two independent systems, the legal system mainly generated from the Ottoman Land Code and the traditional system. The legal system may be joined to a superstructure imposed on an alien background of native habits and customs which themselves are the product of the peculiar conditions of the social and economic history and environment of the country. In particular cases the legal system has succeeded in uprooting the traditional system and entirely succeeded it, while elsewhere the traditional system has affected the position of the law and sometimes become embodied in it.

It is nevertheless true to say that the two systems of land tenure in Iraq are the product of the conflict between the legal superstructure and the customary practice. The customary system is mainly the result of tribal social organization in the
countryside; the legal structure is mainly based on the Ottoman Land Code. (42, p. 1)

The traditional system (tribal system) was very common until some 50 years ago, yet it still prevailed in some parts of the country until 1958. Under this system, the usual procedure was to set aside a portion of the cultivated area, to provide revenue for the Sheik to discharge his political duties, which included the maintenance of "... a tribal militia, the provision of hospitals, and keeping the mudhif (the coffee shop and civic and social centre of the tribe)" (134, p. 104). The remainder of the land was distributed among the members of the tribe, according to the amount of land reclaimed. However, more often,

The land was cultivated in small groups, the tribal sub-sections or clans, under the direction of sirkal, the head of the clan, who organized the members of the tribe on a share-cropping basis, the peasants generally taking a half, two-fifths, or a third of the produce. (134, p. 105)

However, even on such individual small holdings communal ownership was displayed in several ways, for example, the fact that sub-tribal chiefs and landholders could be shifted from their holdings by the tribal sheik, a practice, the exercise and frequency of which rests on the power and prestige of the sheik. Again there was the right of pre-emption and veto of the tribe to any transfer of land especially to outsiders, the fact that women are excluded from inheriting land; the moral duty of employing members of the tribe, and preferring them
to outsiders, for cultivation of the land. And in certain parts of Iraq,

... original distribution of the land among all the members who had participated in its conquest from another tribe or its reclamation from the marsh or the desert or in the reallocation of the land which is done periodically in a way similar to the (Kushaa) system. Indeed, a great deal of truth is attached to the statement that before disintegration set in, the peasant was not only a partner in the crop which he helped to raise, but also in the land which he occupied. (42, p. 4)

The method of farming necessitated the existence of some measure of communal cultivation and ownership. Cultivation by irrigation involved many duties which could not be performed by a family; the clearance of canals, the building of dams across the channels, the strengthening of the river banks, the digging of the little channels to irrigate the plots and their constant maintenance. All these efforts required a communal effort for their accomplishment and generally called for a larger unit of cultivation. Thus, the land was divided into Mugataas (estate). A tribe would hold one or more mugataas. Each mugatta was divided into gitaaas which were generally the units of farming. A gitaa was managed by a sirkal, sub-tribal chief who was either independent or an agent of the sheik. Thus, the sirkal, head of the clan, was a manager on behalf of the tribe; he employed the fallahin and divided the land among them into plots to support them until the harvest. The sirkal also appointed the dates of sowing, harvesting, and threshing, and organized irrigation canals clearance. He sometimes pro-
vided the seeds and made advances in money to enable the fallah to live until the harvest. The fallahin did not each hold a piece of land, but they generally were in groups of normally four or eight peasants. Such a group was called Shaddah which cultivated a piece of land in common and divided the share of the crop equally between them. One or two of the members of the shaddah were responsible for irrigation and canal clearance while the remainder ploughed and sowed the fields. At harvest time, they all gathered the crop (42).

Another aspect of tribal life which originates from the same conditions was that the fallah was not properly attached to the soil. Although, the tribe exercised a right of occupancy over the mugatta and could prove attachment and occupation of the whole area, it could not be proved in the same sense that the fallah had a certain plot of his own occupied for a number of years. Within the tribal mugatta, the area cultivated by each shaddah (group of peasants) shifted as canals silted up and the land was impoverished by salt, and so the area cultivated by each fallah shifted also.

The fallahin themselves were largely mobile, both within the tribal mugataa and outside it; cultivation was rather half-hearted and grazing remained an alternative occupation. Frequently a fallah family combined both, one or more of its members wandered far into the desert to graze the family sheep and the remainder stayed home to care for the crop.
Further, a tribal feud may render staying unattractive while the prospect of better treatment by another sirkal or better returns from a newly developed law may induce the peasant to move. Some peasants however stayed with one sirkal all their lives and some were the sirkal's own kin. The mobility of the peasant gave a protection to him from the oppression which the serfs experienced in Europe. But it also meant halfhearted cultivation. Further when the tribal organization was intact, his mobility did not prevent him from being a real partner in the tribal (mugataa). (42, p. 5)

Social ties and tribal loyalties held the tribe together. But as these ties loosen the fallah was liable to lose everything as he had no plot of land which he could really call his own.

It may be worth remembering that the tribal system, when it prevailed before the enactment of the Agrarian Reform Law of 1958, generally had no legal basis, and no protection from the government; the tribe was, in fact, in itself a unit of political organization, and itself performed the State's functions. Within the tribal (traditional) organization there was no clear definition of individual rights of ownership to the collectively-owned land. It was a system

... which could exist as long as no one thought about it; as long, that is, as the tribe was accepted as the unit of political life, and as long as no individual claims were likely to be made. (134, p. 106)

For such a reason it was impossible, once the tribal system had ceased to be the political unit, to settle land on a tribal basis; and yet to settle land on the basis of supposed individual claims created grave injustice, because in practice
it meant that too much land was granted to the sheik and his sirkals and that the fallahin were reduced to the position of tenants, share-croppers, or laborers.

Economically, socially, and politically the tribal tenure system in Iraq had serious disadvantages. From the point of view of economic development of agriculture it did not lead to a proper organization of the factors of production and did not encourage technical efficiency. That is to say, there was no large-scale cultivation but cultivation of small plots of land that result in a waste of time and effort. Moreover, the shifting character of cultivation indicated the prejudicial effects of this system on land fertility; and the reallocation of holdings left the fallah with no incentive to make any improvement in land since the benefit of such improvement would go to his successor in the land. This system also led to subsistence extensive farming and was not fit for production to market. The absence of exclusive rights and legal ownership made it difficult for the fallah to secure loans on mortgage of their land, and thus access to money for making improvements in the methods of production was blocked.

The tribal tenure system had made of the tribe a unit of political life with a feudal social characteristic, largely independent in regulating the social and political life and its members with the rules of their traditions and with little attention to the regulations and laws of the State. Thus, it
had made of the tribe a national problem, a source of trouble, a backward entity that stood in the way of the social, economic, and political development of the country at large. The problem became acute when

... the British during the period of their occupation in Iraq affirmed the right of the tribes to govern the activities of their members according to their customs and traditions—by instituting the tribal law beside the existing civil law. (5, p. 386)

There was no such law under Ottoman rule. The Ottoman rulers had always tried to break up the tribal structure which caused them much trouble and annoyance. The tribal law which was in operation in some parts of Iraq until 1958 gave the tribal chiefs the judicial power to settle disputes without being subjected to the national civil law. Consequently, the amalgamation of the tribe with the rest of the nation was made difficult under law and the tribe had been encouraged to remain loosely bound to the national government.

This situation had created many administrative difficulties. Such difficulties, as illustrated by Afif I. Tannous, were:

In the imposition and collection of taxes, in the taking of censuses, in the application of educational and health programs, in the carrying out of agricultural projects, and in the conscription of men for military training, the authorities often find themselves frustrated at one point or another by the tribal organization. Plans, policies, programs, and projects that are formulated on a national scale have in many cases to be either modified or completely abandoned as far as the tribal segment of the nation is concerned. (112, p. 1)
The impact of western technique and the attempt at centralization started by the Ottomans in the second half of the Nineteenth Century and continued during the twentieth by their successors, has disturbed the local tribal system in Iraq. Western technique at first manifested itself primarily in the form of development of transport which opened the markets of Europe for the products of Iraq. Transport developments and the opening of the Suez Canal revolutionized agriculture in Iraq and with it the prevailing social pattern. To illustrate the extent to which these influences contributed towards a change in agrarian conditions in the country, it would be noted that whereas Iraq was a net importer of grain before 1869, it exported annually an average of about 100,000 tons of grain during the five years preceding the first World War and about 300,000 tons before the second World War and again more than 500,000 tons during years just before the enactment of the Law (42). Naturally this expansion reflected an increase in the cultivated area with inevitable results on the whole tribal system. In the past the tribesman was a servant, now he has become a factor of production and a source of wealth. The sheik who strived for prestige and power on a patriarchal model in the static conditions in early twentieth century tended to exchange this position for the position of the landlord. The fallah who was a partner in both the crop and the land tended to become an employee of the landlord.
The tribal ties began to give way. Landholding fallahin were squeezed out and strangers employed. Private property in land asserted itself more and more strongly but the process is even now not yet completed everywhere. During the last 20-30 years, the introduction of irrigation pumps and agricultural machinery had further disturbing results on the tribal tenure system (42).

Another influence, namely centralization (42), also worked in the same direction. The decentralized Ottoman administration which existed until the Tandhimatt (classification of land) of the nineteenth century had fitted very well with the social structure of Iraq. The Ottoman system of land tenure previous to the tandhimatt was based on the theory of state ownership of all the land, with a few exceptions relating to Mulk (freehold, land held in absolute private ownership) which was mainly in the towns, the true Wagf (property or land in trust) or mortmain converted out of mulk. But the state recognized the prescriptive right of the occupants of the land in the form of Tassaruf (possession) or life leasehold which later became hereditary (42).

According to this theory of state ownership, the Ottoman built up an economic, social and military structure. They

... parced out military fiefs to military commanders, local chiefs and favorites called Zeamet, Timar and Spahi, according to the size and revenue returns of these fiefs. The fief holders had had rights which were tantamount to local autonomy. They collected land revenue for the state; they
supervised the cultivation of the land and authorized transfer of land between occupiers, the succession of heirs, and the development of barren land. Certain dues were collected from the cultivators apart from the tithe. (42, p. 6)

In return to the state the military commanders and local chiefs had to surrender one armed and fully equipped soldier for every unit of land earning 1000 piasters of land revenue. It was mainly with such an army that the Ottoman leaders had conquered the Arab countries and a large part of Europe.

In Iraq, the sheiks were incorporated into this system and their relation with the state was restricted to keeping order and security in their areas, the collection and payment of revenue and the provision of soldiers.

Early in the nineteenth century abuses came into this system which was abolished as a part of a general reform in the empire. This general reform consisted of a series of actions, the most important of which was the inauguration of the Land Code and Tapu Law in 1858. This Code was based partly on the Islamic Law and partly on the Ottoman's conception of state-ownership of the land and embodied among other things the following important principles: The land, with few exceptions, is considered the property of the State. The land was to be leased in perpetuity to private individuals against payment of the tithe. Such a leasehold was called Tassaruf. The leaseholders were to be peasant households who proved ten years previous occupation of the land. Their
occupancy is to be recognized by the state and to be registered in the Registration Office called Tapu.

If for any reason, previous occupation for the stated period of ten years cannot be proved or if rent had been paid for the land, apart from the tithes, the land should nevertheless be granted in (this) form of leasehold but against payment of the assessed value of the land. If payment is not made the land is to be sold in auction to the highest bidder. (42, p. 7)

Common ownership in land was to be discouraged in favor of mulk (private ownership) and the Code forbade the registration of a whole village in the name of one or more sheik or persons in the village or in the name of the whole community. If barren land was developed by an individual, it was to be registered in his name free of charge; on the other hand if a landholder neglected the cultivation of his land and left it barren for three years without valid reason, he was to forfeit the right and land reverts to the state, to be sold at auction (42).

The landholder had only the right over the surface of the land, mining rights were not included. Even surface rights were limited in the Code. The planting of trees and the erection of buildings were subject to a special license.

Although the Ottoman legal system embodied the principle of state ownership of the land, it provided that possession was to be alienated on secure heritable terms of tenure either freely to the actual occupants of the land or at the assessed value by sale. Thus, no land was to remain in the hand of the
state unless it was barren land called Mewat (later we will use the term Mutruka to mean the same), i.e. land devoted for public use such as roads or for common village use, such as grazing grounds and forests (90, p. 81).

The application of the law met many difficulties and largely failed. More than anywhere else in the empire, it failed in Iraq. The rural population in Iraq was then largely tribal and the communal idea of property, discussed earlier, was the predominant characteristic of the tribal land tenure. Accordingly, the Ottoman idea of private ownership of land was largely alien to the tribes, and the Ottoman theory of state ownership of land according to which most of the land in the country was held to belong to the State came into direct conflict with the tribal practices. The Ottoman leaders considered as their own, by the right of conquest, those lands of Middle and Lower Iraq which did not belong to individual holders. Simply put, all non-owned lands belonged to the State, which could grant them to whomever it wished and for whatever purpose (5, p. 307).

Beside the difficulty of breaking up the institutional structure of the tribes, the Ottoman Land Code also failed because it did not fit the different parts of Iraq. The Code required previous occupancy and use for ten years as a proof of ownership. In certain parts of northern Iraq farming conditions suited this requirement. Farming in northern Iraq
depends mainly on rainfall and the fallahin had tracts of land to which they were more or less attached; thus ten years occupation and use could for the most part be proved. But in the irrigation zones of Lower and Middle Iraq, ownership of land was more or less communal, occupancies were shifted and the fallah was not attached to a specified tract of land. Hence, it was soon found that most of the fallahin did not satisfy the conditions of free alienation.

Although many of the tribes in Iraq accepted the new arrangement of land settlement, designed by the Code, and thus came in this way to have a tenancy right to state land, the majority of tribal chiefs feared and shunned the new status. The greater part of the tribes refused this arrangement of land settlement due to the long established antipathy of the tribes toward the government, as well as their fear of the military conscription law, which the State was attempting to enforce (5, p. 308).

In either case the individual fallah suffered considerable mischief. Where their tribal sheik accepted the new policy of land settlement and got hold of the land supposedly on behalf of their tribesmen (the fallahin), they actually became the absolute owners of the whole land and the fallahin who once enjoyed communal tenure, sank to the level of serfs. Where their tribal chiefs refused the new policy, part of their land passed by sale to townspeople. In certain regions
of Iraq, freehold titles in land already inhabited by tribes were sold to town notables and outside sheiks.

The fact that land was granted to whomever the Ottoman leaders desired without regard to the claims of the occupants created confusion and disputes, some of which have persisted until recently. Furthermore, the registration of land as the property of tribal sheiks or town notables over the head of the tribesmen, who were the actual cultivators of land, distorted the whole agrarian improvement which the Land Code was intended to accomplish. The greatest amount of confusion and dispute over land rights occurred in the irrigation zones of Middle and Lower Iraq, as intense conflict and fighting took place between the sheiks and the fallahin. Thus, the Ottoman leaders stopped the process of alienation after about one-fifth of the land had been registered (42). Two decrees were issued, in 1890 and 1892, which suspended the operation of Article 78 of the Land Code in the irrigation zone. This is the very article which recognized the right of possession and allowed for its registration. Thus these decrees practically excluded the irrigation zone from the provisions of the Land Code and deprived the cultivators of the land from recognition of their rights. An extra legal class of land was created; in it both the Tassaruf (possession) as well as the Bagaba (ownership) belonged to the State. Such land came to be called Amiriya, or commonly shortened to Miri land, while
land already alienated and registered was called Tapu land (42). The occupants of Kiri lands were regarded as tenants on a state land and in theory the state had the right to evict them at will.

In short, the existence of four-fifths of the land in Iraq as an extra-legal category governed only by administrative decisions, was a standing proof and manifestation of the conflict between the legal system and the traditional system. In the other fifth of the land, which was alienated and registered in the tapu, the conflict between the title-holder and the actual occupant of the land was a symptom of the same trouble (42).

Land tenure under British occupation and mandate

In order to facilitate the carrying out of colonial policies, the British followed the Ottoman legal system and strengthened the position of the tribal sheik. They provided not only land and money for the sheiks, but also appointed them to high posts in the country's administration. Dr. K. F. Jamili made this point clear.

It is a well-known fact that the government has by virtue of the land-tenancy land deprived certain sheiks and favored others according to their political inclinations and obedience to the central authority, a fact which has made many a new sheik rise to power and has caused others to fall into oblivion. (64, p. 81)

To encourage and strengthen their feudal system, the British and their supporters increased the tribal chieftans'
power by the enactment of a primitive tribal law.

(This law) legalized and regulated the personal and property affairs of the rural areas, according to the prevailing and accepted codes and customs of each tribe. The semi-feudal tenure system, headed by the tribal sheiks, was revived for political reasons. Women were generally deprived from land inheritance in the tribal convention. The primogeniture system was applied to men. In some districts the sheiks levied a special tax in kind from the meager share of the farmer to provide for the management and upkeep of the common guest house. In case of inter-tribal dispute the claims were settled by money, cattle, and even women, collected from clans or tribes' members. (30, p. 69)

The British officials attempted to reform the tenure systems in the country and to provide a permanent legal framework. But they failed. Their failure could be attributed to lack of means of enforcement of the central government's laws and their lack of knowledge of the tribal situation in the country. Also, they favored the principle of State ownership of land to control recalcitrant and uncooperative tribesmen. Another factor could be the incompatibility of their regulations and laws with the existing conditions of the country. To make the matter worse, as Turkish forces retired during the war, the (Tapu) officials frequently destroyed their registers and files, and in some places sold false title deeds to unscrupulous persons before they left (5, p. 314). It was difficult, therefore, if not impossible to provide an effective land ownership registration. Land for which no claim was recorded was registered at the Tapu as state domain (Miri Sirf) and was regarded as such when the land
settlement of modern Iraq began in 1933.

Land policy under the semi-independent state

Iraq gained its semi-independent identity in 1932, when it was admitted to the League of Nations. The new government headed by King Faisal the First, inherited all the past confusion in land tenure policies. This Royal government seemed quite anxious for an immediate solution to the problems of land tenure which was their hope for the stability of the rural population whose support they needed. In 1931 Sir Ernest Dowson, a British expert on land settlement problems, was invited to study the tenancy problem and make his recommendations. Two years later a new land registration was begun. This most important development of rights to land in the country happened when the Government assumed the responsibility of resolving the confusion in the system by putting into application the recommendations of Sir Ernest Dowson. Dowson believed that the main problem of land tenure in the country consisted of the need to provide security and clarity of tenure in all parts of Iraq by a general definition and settlement on a clear legal basis of both statutory and equitable rights to land (28). The general objective as he saw it

... should be to confirm and maintain beneficial occupation and use, wherever this was reconcilable with the equitable treatment of the third parties and just interests of the public. (28, p. 75)

Dowson's recommendations to the government of Iraq were
based on his study of the reasons for the failure of the Ottoman Land Code, which he thought was premature for the overwhelming majority of the country. He recommended that the government of Iraq undertake an overall program to survey the land and to provide land valuation and settlement rights. A special Taswiyah (settlement) Department was organized by the government upon Dowson's recommendations to continue the study of land tenure and other related questions and to end the confusion by establishing the legal holders to the different types of land tenure. He also recommended that the government retain its ownership of land in the process of land settlement. By doing so, the government would be able to rearrange landholdings to the advantage of farmers and the nation as a whole in case of development progress. On the contrary, if the government granted its (Miri) lands in Tapu tenures to holders, then they might have to resort to expropriation, which is a slow and costly process in order to fit the tenure system to the developmental requirements.

Except for the last one, Dowson's recommendations were largely adopted. Taking into consideration Dowson's recommendations, the government of Iraq carried out a cadastral survey by means of a special Land Settlement Committee (Taswiyah). The findings were embodied in the Land Settlement Law of 1932. This law as well as the law which replaced it in 1938, recognized the following types of land tenure:
1. Al-Aradi Al-Amiriya (commonly shortened to Miri Land) literally means "State Land". The state is the legal owner under this type of land-tenure, even though the use of the land may be granted to private individuals. This Miri Land was further classified into three sub-categories:

a) Al-Aradi Al-Amiriya Al-Sirfa (commonly shortened to Miri Sirf): State Land, whose full legal ownership (ragaba) and usufructuary possession (tassarruf) belong to the state. This type of land is practically all vacant or idle land; it also may be exploited, directly or indirectly at the state's discretion.

b) Amiriyah Mufawwada bil-Tapu (Miri Tapu): State Land can be used by holders and left to successors. The state holds the ragaba (full legal ownership), but the tassarruf is granted on registered tenure. This land is held in permanent tenure from the state, enabling the holder of the land, who in reality is the private owner of the land, to sell, to mortgage or to will to his successors. Proof of such tenure may be supplied by documentary evidence or factual evidence that the land has been used productively by the holder or his predecessor for 10 years during which no land rent was paid or that it has been planted with trees meeting specified conditions.

c) Amiriyah mamnuha bil-Lazma (Miri Lazma): State Land held under the same conditions as Miri Tapu, but the govern-
ment may veto the transfer of such land if it tends to disturb the peace. This type of land tenure exists in the country because of its population's tribal character. The tribe that farms such lands pays the government a fee for their use until the lands have been used at least ten years consecutively; then Miri Lazma lands may be registered in the name of its holder and becomes Tapu land, subject to restrictions over the transfer of title and to the continuity of proper cultivation.

2. Al-Aradhi Al-Mumluka (commonly shortened to Mulk lands) are held in absolute private ownership, both ragaba and tassarruf. In most cases, this is restricted to urban property.

3. Al-Aradhi Al-Matrukah (commonly shortened to Matrukah lands—literally "what is left"). This type of land tenure is treated as state land, but is reserved for public purposes, such as roads, parks, village grazing areas, cemeteries, etc.

4. Al-Aradhi Al-Mawgoufah (commonly shortened to Wakuf lands) is land or property in trust. This type of land tenure is found in all Moslem countries. It includes three categories: (1) Wakuf Khari, which is dedicated to charitable objects and religious purposes. (2) Wakuf Mashtarak, whose dedication is made partly to a family trust and partly to religious purposes. (3) Wakuf Dhurri or Wakuf Ahali, which is held in family trust. In Iraq Wakuf lands are administered
in trust by (1) the Government Awkaf Administration for the benefits of religious institutions. This type of Wakuf (called "True Wakuf") is property or land from which taxes or revenues were assigned in the past to religious institutions by the Turkish government. (2) Mutawallis or private trustees who are appointed by religious courts can also administer Wakuf lands.

Land Distribution

The land tenure system of Iraq prior to the enactment of the 1958 Agrarian Reform Law, was basically feudalistic. A few landlords (mallakeen) controlled large areas of fertile land, while the majority of peasants (fallahin) worked as share-croppers. The peasant's share of the crop differed according to the section of the country. It varied between one-half and two-thirds in the central part where vegetables or grains are grown. On the other hand in the date orchards, the peasant's share was as low as one-fifth to one-eighth of the crop. The small share reflects the heavy capital investment in date production made by the landlord (mallak) (62, p. 17).

It has also been established earlier that agriculture in Iraq is the dominant occupation of the people. Industry does not presently exist on any significant scale. About 63 percent of the population of the country is in agriculture dis-
tributed among 121,000 farms the size of which varies from less than one donum (or what is called in Iraq mashara, equal to 2,500 square meters or .62 acre) to more than 20,000 donums (9).

The distribution of agricultural holdings in Iraq according to size of holdings is presented in Table 3. Individuals owning more than 1,000 donums (620 acres) before the enactment of the Law, were almost exclusively landlords. This land, comprising 80 per cent of the total, was operated by peasants under conditions of feudalism. The extent of polarization of landholdings is indicated (in Table 3) by the 16,088,600 donums (80 per cent) owned by only 2,025 (1.5 per cent) landlords and the 4,039,973 donums (20 per cent) owned by the 149,672 (98.5 per cent) small landholders.

Land in private ownership (Mulk) comprised only a small proportion of the total. About 92 per cent of the land in Iraq, prior to 1958, was State land. Table 4 presents land classification according to types of tenure in Iraq.

The degree of land concentration was not uniform in all sections of Iraq. The south region had the greatest degree of concentration and therefore the least diffusion of land ownership. On the other hand, the northern region had the least concentration and thus greater diffusion of land ownership. Table 5 shows that large landholdings (600 donums and over) in the northern section held 44.3 per cent of the land
Table 3. Distribution of agricultural holdings according to size and number of proprietors in Iraq prior to the enactment of the Law in 1958*

<table>
<thead>
<tr>
<th>Size group</th>
<th>Number of proprietors</th>
<th>Approximate average size of holding</th>
<th>Approximate area held</th>
<th>Percentage of proprietors</th>
<th>Approximate per cent of area</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Under 5</td>
<td>62,029</td>
<td>2.4</td>
<td>146,701</td>
<td>40.8</td>
<td>.7</td>
</tr>
<tr>
<td>(2) 5-50</td>
<td>71,235</td>
<td>16.3</td>
<td>1,162,102</td>
<td>46.9</td>
<td>5.8</td>
</tr>
<tr>
<td>Subtotal (lines 1 &amp; 2)</td>
<td>133,264</td>
<td>9.7</td>
<td>1,308,803</td>
<td>87.7</td>
<td>6.5</td>
</tr>
<tr>
<td>(3) 50-1,000</td>
<td>16,408</td>
<td>166.5</td>
<td>2,731,170</td>
<td>10.8</td>
<td>13.5</td>
</tr>
<tr>
<td>(4) 1,000-50,000</td>
<td>1,991</td>
<td>6,094</td>
<td>12,133,600</td>
<td>1.3</td>
<td>60.3</td>
</tr>
<tr>
<td>(5) 50,000-200,000</td>
<td>34</td>
<td>116,324</td>
<td>3,955,000</td>
<td>.2</td>
<td>19.7</td>
</tr>
<tr>
<td>Subtotal (lines 3 &amp; 4)</td>
<td>2,025</td>
<td></td>
<td>16,088,600</td>
<td>1.5</td>
<td>80.0</td>
</tr>
<tr>
<td>Total</td>
<td>151,697</td>
<td></td>
<td>20,128,573</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Data from (9, p. 381).
### Table 4. Type of land ownership classified by the cadastral survey prior to the enactment of the Law in 1958^a^  

<table>
<thead>
<tr>
<th>Type of land tenure</th>
<th>In thousand donums</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mulk (private ownership)</td>
<td>239</td>
<td>0.3</td>
</tr>
<tr>
<td>Hatruka (reserved for public purposes)</td>
<td>5,136</td>
<td>6.5</td>
</tr>
<tr>
<td>Wakuf (property in trust)</td>
<td>840</td>
<td>1.1</td>
</tr>
<tr>
<td>Miri Land (State Land)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tapu</td>
<td>12,348</td>
<td>15.6</td>
</tr>
<tr>
<td>Lazma</td>
<td>11,649</td>
<td>14.8</td>
</tr>
<tr>
<td>Miri Sirf</td>
<td>48,701</td>
<td>61.7</td>
</tr>
<tr>
<td>Total</td>
<td>78,913</td>
<td>100.0</td>
</tr>
</tbody>
</table>

^a^Data from (53, p. 70).

In farms in the central section they held 78.9 per cent of the land; and in the southern section they controlled about 90 per cent of the land in farms. On the other extreme, the percentages of farm lands held by small holders in the northern, central and southern regions were 16.6, 5.1, and 3.8 per cent, respectively.

In 1931, Sir Ernest Dowson recorded in his report to the government of Iraq that there were 514 persons, each of whom owned more than 1,000 donums (620 acres); 1,545 persons, each holding between 500 and 1,000 donums; 1,431 persons each
Table 5. Distribution of the number of farms and land in farms by size group for the regions of Iraq prior to 1958

<table>
<thead>
<tr>
<th>Size</th>
<th>Number of farms (per cent)</th>
<th>Land in farms (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Northern Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 100</td>
<td>67.1</td>
<td>16.6</td>
</tr>
<tr>
<td>100-599</td>
<td>29.6</td>
<td>39.1</td>
</tr>
<tr>
<td>600 and over</td>
<td>3.3</td>
<td>44.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>The Central Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 100</td>
<td>75.7</td>
<td>5.1</td>
</tr>
<tr>
<td>100-599</td>
<td>17.7</td>
<td>16.0</td>
</tr>
<tr>
<td>600 and over</td>
<td>6.6</td>
<td>78.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>The Southern Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 100</td>
<td>89.5</td>
<td>3.8</td>
</tr>
<tr>
<td>100-599</td>
<td>5.9</td>
<td>6.1</td>
</tr>
<tr>
<td>600 and over</td>
<td>4.6</td>
<td>90.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

aData from (5, p. 335).

owning holdings between 100 and 500 donums; and 22,846 persons owning less than 100 donums (62 acres) (28). Comparing these figures with the figures presented earlier concerning the distribution of land holdings in 1952-53 (Table 3), we see that the number of persons who owned over 1,000 donums (620 acres) has increased perhaps about seven times more than the number of persons who owned the same area in 1931. That is an increase in number from 514 to 3,602 persons. Among these, 104 persons each owned more than 20,000 donums.
(12,400 acres); 168 persons each held between 10,000 to 20,000 donums; and 422 persons each with estates of 5,000 to 10,000 donums.

This makes it clear that in Iraq before the Law's enactment, there existed the most extreme polarization between the very small number of big landlords (Mallakeen) who owned most of the land in the country, and the very large number of small landholders who owned only a very small part of the land. On the other extreme, the area of medium size was relatively insignificant.

On the whole, Iraq stood in marked contrast to almost all the other Middle East countries with regard to the proportion of the land held by large landowners, with a consequently detrimental effect on the development of human and natural resources. Large landowners in Egypt in 1949 (before the land reform program) held only 35 per cent of the total land in farms, or less than half of the proportion held by Mallakeen in Iraq. In Syria, a large proportion own only 36 per cent or about half the proportion in Iraq prior to 1958, while in Jordan the proportion goes down to 14.2 per cent or about one fifth that which prevailed in Iraq (9, p. 387).

Therefore, it is obvious that the need for land reform measures to redistribute rights to land was urgent in Iraq, bearing in mind the impairing effects of such a high degree of land concentration on the socio-economic political develop-
ment of the country at large. The extremely uneven distribution of landholding in the country whose principal occupation was agriculture left the overwhelming majority of the population with a very low production, poor conditions of living, low incentives to improve the land, low savings, low rate of capital formation, low taxing capacity, low purchasing power and last but far from least, low standards of health, hygiene and education.

Demographic Position

Population growth and economic development

The interest in economic development stems from the desire to improve the level of living of people. However, such improvements in living standards can only be attained if the rate of economic development is faster than the rate of population growth. The production of the necessities of life must be increased fast enough to exceed the increase in the number of customers. This leads one to think of the forces at work that determine the rate of population growth and how these forces affect, or are affected by, economic growth.

According to Simon Kuznets (71, p. 166), the rate of population growth in a country depends upon four factors. First, its birth and death rates; second the rapidity with
which its death rates decline; third the lag in the fall of
its birth rates; fourth the extent of migration. Differences
in the rates of births and deaths are closely correlated with
differences in the levels of economic development between
nations. The generally accepted theory is that nations char­
acteristically pass through a cycle of changing natality and
mortality rates as they make the transition from a low income
agrarian economy to a higher income industrial one (5, p.
126). For the purpose of understanding patterns of popula­
tion growth, social scientists have classified nations in
three classes that include countries with different stages
of development, and thus, with different rates of natality
and mortality.

Class I consists of nations with high potential rates
of population growth, that is to say, both birth and death
rates are high. Measures for the reduction of death rates
of such populations would create rapid rates of increase.
This is because no control over the birth rates is feasible
at their stage where the economy of such nations is primarily
agricultural with little or no industrialization.

Class II induces countries which are in transition from
predominantly agricultural population to a predominantly in­
dustrial one. In this class death rates have considerably
declined but birth rates have the tendency to remain high,
or to decline slowly; so that the rates of population growth
are already high. The rate of growth will continue to grow rapidly for some years and then will slacken when these countries pass into Class III.

Class III consists of those highly industrialized nations which have a population with very low birth and death rates, and a generally increased span of life. Such nations have completed the cycle of passing from an agricultural economy, to an industrialized one, from rural to city life, from family farm to wage-earning industrial employment, from low level of income, education, health and hygiene to very high levels of all of these.

Iraq is now in Class I, countries of high potential populations with an economy that is still primarily agrarian. Although no exact figures exist as yet registering the annual numbers of births and deaths, the fact that about half of the population is under 20 years of age points to a combination of high rates of both natality and mortality (5, p. 126). But how high birth and death rates are, is not clearly known, and, therefore, the rates of population growth can not be accurately computed. However, in some writings on Iraq one finds some mention about the rate of population growth in the country which is put in the neighborhood of 1.5 per cent per year. This is expressed clearly in the statement by the Mission on Economic Development of Iraq:
Like all other countries at similar stages of development, Iraq has a very young population, about half being under the age of 20. Although no reliable vital statistics are available, all indications point on the one hand to a very high rate of mortality among infants and young children, and on the other, to a correspondingly high birth rate. Even under the present poor health conditions the population seems to have been increasing at a rate conjectured to be in the region of one to one and a half per cent per annum. Whatever the present rate, however, it is clear that, if full advantage is taken of the ample opportunity to improve health conditions in the future, the rate could rise to two per cent per annum or even higher within a comparatively short period. Obviously this possibility will have to be borne in mind in planning the development of social services such as education and housing. It also has important implications in agriculture. As the limited supply of water is more fully utilized, most of the increase in population may ultimately have to be absorbed in non-agricultural pursuits, unless water is used much more efficiently than it is now. (50, p. 126)

Although there is no mention of the basis on which the 1.5 per cent per annum rate of population is estimated, it seems reasonable to assume that the birth rate may have been estimated at 40 and the death rate at 25 per 1,000 or 1.5 per cent. Such estimates are in line with some of the demographers' moderate estimates of birth and death rates for Class I nations (5, p. 127).

According to government sources in 1950, the crude birth rates in the country are 27 per 1,000; the crude death rate, 12 per 1,000; and infant mortality 97 per 1,000 babies born (54b, p. 4). However, estimates of medical authorities and other writers indicate that the above figures are away off the mark. In 1956, Doris Adams estimated the crude birth
rate at about 50 per 1,000, the crude death rate at 30 per 1,000 and the infant mortality rate for the whole country at 300-350 per 1,000 with regional variation going as high as 500 per 1,000 babies born in malarial areas (2, p. 159).

Yet, one may get more accurate figures of the rate of population growth in Iraq by utilizing available figures on population number for the past three decades. Table 6 shows that Iraq's population has increased from 3.1 millions in 1930 to 6.6 millions in 1960; in other words, the population has been doubled in about 30 years. A population that doubles itself in 30 years means that it has been increasing at an average annual rate of 2.3 per cent per year.*

---

*Computed by the formula:

1. \((A (1+r)^{30} = B)\) where \(A\) is equal to 1930 figure and \(B\) to 1960 figure. Let \(B = 2A\),

2. \((1+r)^{30} = B/A\),

3. \(30 \ln (1+r) = \ln B - \ln A\),
   \(30 \ln (1+r) = \ln 2A - \ln A\),
   \(30 \ln (1+r) = \ln 2 + \ln A - \ln A\),

4. \(\ln (1+r) = \ln 2/30 = \frac{.69315}{30}\)
   \(\ln (1+r) = .012310\),

5. \((1+r) = e^{.02310}\)
   \(1 + r = 1.02329\),

6. \(r = .02329\).
Table 6. Population of Iraq, 1930-1960

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>3,100,000</td>
<td>1950</td>
<td>5,278,000</td>
</tr>
<tr>
<td>1934</td>
<td>3,561,000</td>
<td>1951</td>
<td>5,443,000</td>
</tr>
<tr>
<td>1937</td>
<td>3,943,000</td>
<td>1952</td>
<td>5,611,000</td>
</tr>
<tr>
<td>1943</td>
<td>3,992,000</td>
<td>1953</td>
<td>5,786,000</td>
</tr>
<tr>
<td>1944</td>
<td>4,303,000</td>
<td>1954</td>
<td>5,966,000</td>
</tr>
<tr>
<td>1945</td>
<td>4,611,000</td>
<td>1955</td>
<td>6,152,000</td>
</tr>
<tr>
<td>1946</td>
<td>4,803,000</td>
<td>1956</td>
<td>6,343,000</td>
</tr>
<tr>
<td>1947</td>
<td>4,816,000</td>
<td>1957</td>
<td>6,340,000</td>
</tr>
<tr>
<td>1948</td>
<td>4,965,000</td>
<td>1958</td>
<td>6,374,000</td>
</tr>
<tr>
<td>1949</td>
<td>5,119,000</td>
<td>1959</td>
<td>6,460,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1960</td>
<td>6,624,000</td>
</tr>
</tbody>
</table>

Therefore, the excess of births over deaths must have on the average been 23 per 1,000 and not 15 per 1,000 according to the above-mentioned estimate. In this case either the birth rates must have been higher than 40 or the death rates have been falling below 25. However, it is likely that rates of mortality have been declining as a result of the moderate efforts made by the government to raise the health and hygiene standards over the past 30 years.

A rate of population growth of 2.3 per cent per annum reflects a high potential population indeed. And as more adequate measures are taken to improve the standards of health, sanitation, and nutrition in the country, death rates will certainly be cut further.
As birth rates presumably stay unaffected, the rate of population growth in Iraq could rise to 3 per cent per annum or even higher within a comparatively short period. The birth rates are expected to stay unaffected and high so long as the population remains predominantly agrarian. (5, p. 131)

However, once changes in the conditions of life through the evolution of an urban-industrial society are brought about, the birth rates may be expected to slack off and population growth slowed down.

First glance evidence indicates that mortality is on the decline, and that the rate of decline will accelerate quickly over the next few years. The effects of the new public health programs are not as yet recorded, but drastic measures are being taken to eradicate endemic diseases such as malaria. Sanitation, pure water, and medical facilities are being introduced in urban Iraq as well as in rural areas. Education is being provided to a much larger segment of the inhabitants, and real income is rising. Furthermore, evidence indicates the birth rates is still high, and the traditional beliefs of the population favor high fertility. No measures can be imposed to limit fertility in the country because social mores and traditions have a way of hanging on for years and cannot be changed by legislation (90, pp. 1-17).

An awareness of the rate at which a population grows is essential in economic planning. If an increasing standard of living per capita is to be attained, a greater amount of
investment is required to keep up a given level of per capita income.

It has been estimated that an underdeveloped country with its population increasing at one per cent per annum must invest from two to five per cent of its national income in order to keep a constant average amount of working equipment per worker. If the population increases at 2.5 per cent per annum, from 5 to 12.5 per cent of the national income will be absorbed in such investment. (5, p. 132)

However, such estimates are concerned with the problem of maintaining a given standard of living. In Iraq, as mentioned earlier, the present standard of living is not satisfactory and there are sufficient resources to provide foundation for economic development; thus a larger per cent of the national income is needed for investment.

Level of living

The impact of low productivity per unit of manpower and per unit of land together with the uneven distribution of wealth and income in the country has resulted in making the standard of living of the majority of the population deplorably low. In 1949 the Statistical Office of the United Nations estimated the national and per capita incomes of Iraq at 424 million dollars and 85 dollars a year respectively (128, p. 14). Two years later, the International Bank Mission to Iraq attempted to make a rough estimate, but the reports were so conflicting and important data either so unreliable or unavailable that the attempt was abandoned.
However, it did reach the conclusion that the estimate of the Statistical Office was roughly correct (50, p. 131).

Since 1951 two developments have taken place: a sharp increase in oil revenues, coupled with a consistent policy of turning back the major part of these revenues into the development of the idle resources of the country. In the years to come, one may expect both national output and income per head to rise as a result of the relatively high investment outlays expended on the construction of dams, irrigation projects, bridges, roads and other schemes of importance in raising living standards of the people. However, the effect of these development projects on improving the standard of life has not made itself felt except perhaps in a few limited areas where construction is taking place.

Nevertheless, first glance evidence indicates that per capita income in Iraq had increased from $85 to about $195, or a 129.3 per cent increase (124). But this sharp increase in the level of income may be attributed mostly to the increase in oil revenue and not to increased human productivity. Furthermore, even with this sharp increase in the per capita income of Iraq, life is still not far above the subsistence level for much of the population. The fallahin who constitute 63 per cent of the Iraqi population have received little or no increase in their money income and because of increases in the cost of living may actually be in a worse
position than prior to 1949.

According to official figures the average daily wage of Iraqi workers is about 165 fils (36 cents). Among the fallahin incomes are even lower. A statistical study of fallahin income in southern Iraq indicated a figure of about 13 fils or 4 cents per day. The Report of the Mission of the International Bank for Reconstruction and Development gave the average fallahin income as approximately $21.00 per year (50, p. 131).

The Mission presented in its Report an example of the condition of the fallah in the irrigation zone, middle and lower Iraq, which is presented here with little modification (50, p. 156). In this zone a fallah who cultivates 15.5 acres (25 donums) of winter crops such as barley and wheat, before the enactment of the 1958 Law, was probably above the average. His yield would not usually exceed 300 kg. per donum, a total crop of 7.5 tons for the whole 15.5 acres. Of this total the fallah would probably get as his share two-fifths or three tons, out of which he had to retain seed for the next year and pay for some help with the harvesting and threshing. He might therefore be left with only two tons. His family might consist of five or six people, including himself, his wife and children, and one or two relatives such as his parents or an unmarried sister. The minimum retained for food would be one ton or more. He would thus have little
more than one ton left to sell and he might even have to keep some of this for his draft animals, if they were unable to find enough stubble and other natural fodder.

The price which a fallah may get for his grain was usually less than the wholesale market price in large cities; the cost of marketing together with the merchant's profit and the istihlak tax on agricultural produce must all be deducted. At any rate, a fallah may be left with less than $40 from the sale of a ton of his grain. But sometimes he sold his share forward before harvesting; in this case he would get much less for his ton of grain, maybe about $28. If on the average the fallah would get $35 for his winter crops and maybe another $25 for his summer crop, a total of $60 would be his total cash income for the year.

This income would usually be spent on food, clothing and possibly some tobacco. Two of the most important items in food expenditure are sugar and tea. Dates and cheap vegetables such as onions are also bought; fruits and other types of vegetables are luxuries. Meat is only eaten occasionally although fish is available in the marsh areas of the South. The fallah who owns no animals other than his draft animals does not consume milk or leban (sour milk). Clothing would consist of some cheap cotton sheeting sufficient for a few garments and occasionally a second-hand jacket; few fallahin wore shoes. Housing and furniture were very primitive, mud
houses in which man and animal were not segregated were the rule and not the exception. On the whole the fallah's life was not above the subsistence level and most often may be below it. This is how 60 per cent or more of the country's total population who were landless peasants lived, and this was indeed one of the gravest aspects of the landholding system that existed prior to 1958.

**Nutrition and health conditions**

Economically, malnutrition and disease have their effect in reducing productivity and income both by lowering the proportion of people who are capable of working and by lowering the efficiency of those who do work. An individual who is undernourished and ill is unlikely to have the strength, stamina, and mental alertness essential for high productivity. Therefore, an improvement in the standards of nutrition and health is not only desirable as a social end, but also contributes materially to increasing productivity and facilitating the process of economic development.

Iraq's poverty is reflected in the low level of food consumption. According to the best available estimates, the caloric intake of food for perhaps three fourths of the population is only about 1,800 calories per day. Dr. Mohmoud Jalili studied "The State of Nutrition in Iraq" (63, pp. 73-141). He divided a sampling of 55 families into five groups on the basis of their income, and studied their purchases of
food over a one year period. In Table 7 a summary of the five
groups and their average daily consumption is presented.

Class V includes the great majority of Iraq's population, and
therefore the findings relating to it must be weighed heavily.
We should also keep in mind that because Class V samples were
drawn from villagers near major cities, even these poverty
stricken families were probably relatively well off in com-
parison with the strictly rural people.

Table 7. The average daily consumption of five classes in
Iraq, 1950a

<table>
<thead>
<tr>
<th>Income class</th>
<th>Yearly income (Dinars)</th>
<th>Number of families</th>
<th>Location</th>
<th>Occupational group</th>
<th>Average daily calorie intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>More than 1,000</td>
<td>15</td>
<td>Baghdad and Mosul</td>
<td>Merchants, landowners, important government officials</td>
<td>3,098</td>
</tr>
<tr>
<td>II</td>
<td>500-800</td>
<td>18</td>
<td>Baghdad and Mosul</td>
<td>Merchants, government officials</td>
<td>3,328</td>
</tr>
<tr>
<td>III</td>
<td>200-300</td>
<td>6</td>
<td>Baghdad and Mosul</td>
<td>Minor government officials, artisans</td>
<td>2,897</td>
</tr>
<tr>
<td>IV</td>
<td>About 100</td>
<td>6</td>
<td>Houses in various cities</td>
<td>Servants, unskilled laborers</td>
<td>2,613</td>
</tr>
<tr>
<td>V</td>
<td>About 50</td>
<td>10</td>
<td>Huts on outskirts of cities</td>
<td>Farmers, casual laborers</td>
<td>1,813</td>
</tr>
</tbody>
</table>

aData from (63, pp. 73-141).
The diet of the people in Class V was markedly deficient. In the words of Jalili,

Although these people are supposed to do hard physical work because of their occupation, yet they do not perform much work because of their inability to do so due to their deficient diet and the epidemic diseases they suffer from . . . . These people are on the border of starvation though they do not look really emaciated. (63, p. 93)

Classes I and II, which include merchants, landowners and important government officials, had an adequate caloric intake of food of over 3,000 calories per day. However, these two classes constitute perhaps less than one-fifth of the population.

The main ingredients of the Iraqi diet are barley, rice, dates, and some livestock products. The proportion of total family expenditures on food is estimated in urban areas to be probably as high as 70 to 80 per cent of total income. In rural areas more than 80 per cent of the total income is spent for food.

Professor Micheal Critchley of the College of Medicine in Baghdad made a study of the conditions of a large number of fallahin who have migrated from the agricultural provinces to Baghdad in the hope of bettering themselves economically and of ridding themselves of the oppressions of their sheiks. About 200,000 of them were found in Baghdad, living in deplorable slum conditions in a district called Assima. The area, according to Dr. Critchley was the waste land to the east of
the Bund (a long low ridge) which surrounds Baghdad. It has been used by the municipality as well as private individuals as dumping ground for human and animal excreta and rubbish. In many cases the only wage earner in the family (in Assima) was a 10-year-old child who carried parcels in the local markets, thereby earning about 100-150 fils a day (28-42 cents). But even under such abominable conditions the Assima population was likely better off than their rural counterparts.

Dr. Critchley provided tables showing the expenditures of various classes on various items of food. A comparison of weekly expenditures for food for the Assima group and the wealthy group in Iraq is summarized as follows (20b, p. 70):

<table>
<thead>
<tr>
<th>Group</th>
<th>Amount per person</th>
<th>Percent of income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assima</td>
<td>277 Fils (77 cents)</td>
<td>57</td>
</tr>
<tr>
<td>Wealthy</td>
<td>3,461 Fils ($10)</td>
<td>18</td>
</tr>
</tbody>
</table>

The statistical indications of the extent of dietary deficiencies in Iraq make it evident that insufficient and unbalanced diets, among the majority of the population, is responsible for a great deal of waste of human resources, not to mention the emotional, physical and spiritual suffering. Most of the people of all age groups suffer from chronic undernourishment because of a shortage of food and a very low per capita income with which to purchase it. The most obvious and urgently needed remedy in such a situation is the creation of more jobs with higher wages and the provision of ade-
quate food supplies on which to spend a large portion of the increased income.

Partly because of the poor diets and partly because of unsanitary conditions, inadequate disease prevention and lack of medicines, the majority of the population in Iraq suffer almost chronically from many debilitating diseases. Malaria, trachoma and bronchitis are the main hospital cases; the dysenteries, bilharzias, anemias, and syphilis are also frequent causes for hospitalization. Many of these prevailing diseases are the byproduct of polluted water and unsanitary living conditions which in turn are traceable to poverty and ignorance (50, p. 351). However, some people believe that such widespread diseases as malaria and bilharzias are largely a characteristic of dry countries particularly where agricultural developments depend on irrigation of the perennial type. The dry climate in itself is not conducive to the development of such diseases, but the network of irrigation canals and streams causes serious increases of such diseases, because they provide breeding places for mosquitoes and other disease-carrying insects. This situation is present in all Middle Eastern countries which are dependent upon artificial irrigation such as Egypt, Sudan, and Iraq. In Iraq much of the malaria is attributed to the rice fields in the South. There can be no doubt that every year malaria causes many deaths (estimated by Iraqi doctors at 50,000 a
year), much sickness and permanent disability and, consequently, immense loss to the country. It must also be remembered that malaria is commonly associated with schistosomiasis (carried by the snail thriving in polluted water) and ankylostomiasis, causing widespread anemia and debility. Therefore, malaria is of profound significance in the economy of Iraq (50, p. 351).

Among other numerous diseases in Iraq tuberculosis may also be mentioned. The number of tuberculosis cases brought to medical attention indicates that the disease does not represent a serious danger. However, there is reason to believe that its incidence is much higher, owing to the social implications that the public has come to regard tuberculosis as a shameful disease so that few people report to hospitals in the early stage of the illness. Although there are no reliable figures on the true incidence, doctors in Iraq are generally of the opinion that this disease is increasing in the country.

Housing and community planning

Another indication of Iraq's poverty is the very poor housing conditions under which a large portion of the people live and die.

In Iraq, communities had unavoidably grown up rather haphazardly. The older parts of the cities prior to 1958
were characterized by great congestion, narrow streets, open drains and generally unsanitary living conditions. Overcrowding was greatly aggravated by the influx of people from the rural areas seeking to escape the hard conditions of life and to find opportunities for employment in the big cities.

Many of (these) have simply squatted on vacant lots and on the outskirts of cities; they live in primitive, poorly constructed mud and mat huts under conditions of great squalor and without sanitary facilities. (50, p. 55)

Most of these people have immigrated from provinces in the South where problems of land tenure and salting of land have made conditions of life unusually difficult.

Prior to the enactment of the Agrarian Reform Law, almost all the rural population lived in villages rather than in isolated homesteads. These villages were generally clusters of mud houses or huts where, in many cases, people and livestock were not segregated. From necessity, they have usually grown up around wells or along streams and irrigation canals under conditions where water pollution became inevitable. For the most part, safe and clean water supplies were unavailable.

The 1947 census categorizes the residences in the country, as follows: (1) single-family houses of permanent structure, (2) single-family houses of mud or mud brick, (3) multi-family houses, (4) mud or reed huts and nomads' tents, (5) institutions of various kinds, and (6) means of transportation, as for example boats. The census authorities
defined a house, whether of mud or permanent structure, as a building with paved floors, windows of glass and frames, and doors that lock; electricity and plumbing were not included as requisites. The census enumerators had to use their own judgment. They appeared to report many huts as houses, whether from national pride or from the modesty of their own homes. Therefore, the reported percentage of the population living in huts rather than in houses can be taken as a minimum estimate (50, p. 56).

Table 8 classifies Iraq's residences by four major types of housing for the 14 provinces of the country. Despite the under-enumeration, huts were the most common form of housing in the country. They are built at a small cost, usually one room, roofed by rush matting, badly ventilated, overcrowded, containing no sanitary facilities, and frequently housing the domestic animals as well as the family. This type of housing known to the villagers as "Sarifa", was the only form of private housing available to an agricultural community with low cash incomes. The proportion of the population living in huts varied from 1.9 per cent in Kirkuk (mountain province) in the north to the vast majority, or about 85 per cent in Amara (heavy rural irrigation zone province) in the south. One-third of Baghdad houses were considered huts in 1947.

It is against this background that a conscious community development movement began in earnest after the enactment of
<table>
<thead>
<tr>
<th>Locality</th>
<th>Single-family houses</th>
<th>Multi-family houses</th>
<th>Huts, other</th>
<th>Average size of family living in</th>
<th>Single-family families</th>
<th>Multi-family houses</th>
<th>Size of per house</th>
<th>Huts, other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liwas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mosul</td>
<td>52.6</td>
<td>16.5</td>
<td>28.7</td>
<td>2.1</td>
<td>5.6</td>
<td>3.2</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Arbil</td>
<td>82.3</td>
<td>8.7</td>
<td>7.5</td>
<td>1.5</td>
<td>5.3</td>
<td>3.7</td>
<td>4.5</td>
<td>5.4</td>
</tr>
<tr>
<td>Sulaimaniya</td>
<td>75.3</td>
<td>18.4</td>
<td>4.8</td>
<td>1.5</td>
<td>6.5</td>
<td>4.5</td>
<td>5.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>74.8</td>
<td>20.5</td>
<td>1.9</td>
<td>2.7</td>
<td>5.4</td>
<td>4.0</td>
<td>4.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Diyala</td>
<td>53.6</td>
<td>14.9</td>
<td>29.1</td>
<td>2.4</td>
<td>5.5</td>
<td>3.9</td>
<td>5.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Baghdad</td>
<td>27.6</td>
<td>35.3</td>
<td>32.9</td>
<td>4.1</td>
<td>5.8</td>
<td>2.6</td>
<td>4.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Duluiar</td>
<td>33.4</td>
<td>8.1</td>
<td>56.3</td>
<td>2.3</td>
<td>6.4</td>
<td>4.0</td>
<td>5.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Karba'a</td>
<td>26.3</td>
<td>20.2</td>
<td>52.1</td>
<td>1.4</td>
<td>5.5</td>
<td>3.1</td>
<td>5.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Hilliya</td>
<td>35.4</td>
<td>10.3</td>
<td>52.9</td>
<td>1.3</td>
<td>4.3</td>
<td>3.2</td>
<td>3.5</td>
<td>5.3</td>
</tr>
<tr>
<td>Kut</td>
<td>24.5</td>
<td>7.5</td>
<td>66.8</td>
<td>1.1</td>
<td>4.5</td>
<td>3.7</td>
<td>4.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>16.9</td>
<td>5.7</td>
<td>76.6</td>
<td>0.8</td>
<td>6.4</td>
<td>4.3</td>
<td>4.9</td>
<td>7.4</td>
</tr>
<tr>
<td>Muntafiq</td>
<td>10.5</td>
<td>4.8</td>
<td>84.0</td>
<td>0.6</td>
<td>5.4</td>
<td>4.7</td>
<td>5.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Amara</td>
<td>7.3</td>
<td>6.7</td>
<td>85.0</td>
<td>1.1</td>
<td>5.8</td>
<td>4.6</td>
<td>4.9</td>
<td>5.6</td>
</tr>
<tr>
<td>Basra</td>
<td>23.5</td>
<td>8.2</td>
<td>63.6</td>
<td>4.5</td>
<td>5.4</td>
<td>3.4</td>
<td>4.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Cities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baghdad</td>
<td>30.1</td>
<td>52.1</td>
<td>12.6</td>
<td>5.2</td>
<td>6.0</td>
<td>2.3</td>
<td>4.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Mosul</td>
<td>46.9</td>
<td>44.8</td>
<td>1.6</td>
<td>6.7</td>
<td>6.4</td>
<td>2.9</td>
<td>5.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>32.5</td>
<td>57.4</td>
<td>0.5</td>
<td>9.6</td>
<td>5.7</td>
<td>3.9</td>
<td>4.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Basra</td>
<td>24.0</td>
<td>26.3</td>
<td>40.2</td>
<td>9.4</td>
<td>5.3</td>
<td>3.4</td>
<td>4.7</td>
<td>4.3</td>
</tr>
</tbody>
</table>

aData from (2).

bNomads included.

cNomads excluded.
the Law. Its general objectives are to make life more pleasant and bearable. However, housing has not yet received the same attention by public and government authorities as other social services, such as education and health. Education and health services are deemed to have high priority. This does not mean that little is being done in slum clearance projects of general construction. But generally speaking, the enormous size of the problem of housing and the capital outlays required have prevented any large-scale frontal attack.

The educational standard

Education is an essential condition for the agricultural, industrial and technological progress of the country as well as for the development of a fuller cultural life and the sound growth of domestic institutions. Iraq is characterized by a very low standard of education. This has been one of the reasons for a low level of productivity in the country. Mass illiteracy among the population results in a low sanitary standard, high incidence of diseases, low mental alertness and low ability to follow instructions and learn new ways of doing things. In addition low standards of education reduce a country's supply of scientists, physicians, business leaders and technicians who can contribute so much to economic development. Thus, the acquisition of skills in the country is severely limited by lack of education. In Iraq where about 83
per cent of the population is illiterate and deprived of the 
barest elements of basic education, expansion and improvement 
of educational facilities and opportunities is one of the most 
important prerequisites to its economic development as well 
as the development of compatible and stable social and politi­
cal institutions (5, p. 165).

In 1947, of the five million people in Iraq only 369,864 
persons, or 8 per cent, could read and write (see Table 9). 
This includes 14 per cent of the males and 3 per cent of the 
females of the total population. Nomadic beduin, included in 
the percentages, were assumed to be almost 100 per cent illit­
erate. From Table 9 it could also be seen that the provinces 
of Baghdad and Muntifig had the highest and lowest percent­
ages, respectively, of literates in the country with 18 and 
3 per cent. Baghdad city alone had 31 per cent of Iraq's 
literates and 44 per cent of literate females (2, p. 45). In 
the years 1959-1960, after the enactment of the Agrarian Re­
form Law, the total number of schools was 3,457, the number 
of students was 825,350 with an increase of 100,000 students 
annually. An increase in the number of school teachers from 
1,325 in 1957 (prior to the enactment of the Law) to 19,578 
in 1960 (after the enactment of the Law) was also reported 
(29).

From the analysis above it could be seen that there has 
been some progress in the field of education in Iraq. How­
Table 9. Literacy by sex of population of Iraq, 1947 (nomads included)^

<table>
<thead>
<tr>
<th>Locality</th>
<th>Literate population</th>
<th></th>
<th>Per cent of total population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>Liwas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mosul</td>
<td>48,826</td>
<td>36,024</td>
<td>12,802</td>
<td>8</td>
</tr>
<tr>
<td>Arbil</td>
<td>9,410</td>
<td>8,401</td>
<td>1,009</td>
<td>4</td>
</tr>
<tr>
<td>Sulakmaniya</td>
<td>10,304</td>
<td>9,085</td>
<td>1,219</td>
<td>5</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>20,534</td>
<td>17,142</td>
<td>3,392</td>
<td>7</td>
</tr>
<tr>
<td>Diyala</td>
<td>20,520</td>
<td>18,223</td>
<td>2,297</td>
<td>8</td>
</tr>
<tr>
<td>Baghdad</td>
<td>189,546</td>
<td>108,957</td>
<td>40,589</td>
<td>18</td>
</tr>
<tr>
<td>Dulaïm</td>
<td>15,926</td>
<td>14,110</td>
<td>1,816</td>
<td>8</td>
</tr>
<tr>
<td>Karbala</td>
<td>21,384</td>
<td>17,086</td>
<td>4,298</td>
<td>8</td>
</tr>
<tr>
<td>Hilla</td>
<td>17,117</td>
<td>14,010</td>
<td>2,207</td>
<td>7</td>
</tr>
<tr>
<td>Kut</td>
<td>10,213</td>
<td>8,793</td>
<td>1,420</td>
<td>5</td>
</tr>
<tr>
<td>Diwanlya</td>
<td>15,723</td>
<td>14,292</td>
<td>1,431</td>
<td>4</td>
</tr>
<tr>
<td>Muntafiq</td>
<td>12,460</td>
<td>11,112</td>
<td>1,348</td>
<td>3</td>
</tr>
<tr>
<td>Amara</td>
<td>15,606</td>
<td>13,013</td>
<td>2,593</td>
<td>5</td>
</tr>
<tr>
<td>Basra</td>
<td>40,007</td>
<td>32,316</td>
<td>7,691</td>
<td>11</td>
</tr>
<tr>
<td>All Liwas</td>
<td>407,576</td>
<td>323,464</td>
<td>84,112</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Major cities

|             |                     |       |                             |       |      |        |
|-------------|---------------------|-------|-----------------------------|-------|      |        |
|             | Total               | Male  | Female                      | Total | Male | Female |
| Baghdad     | 124,918             | 87,493| 37,425                      | 27    | 36   | 17     |
| Mosul       | 32,541              | 21,573| 10,968                      | 24    | 32   | 17     |
| Kirkuk      | 13,496              | 10,653| 2,843                       | 20    | 29   | 9      |
| Basra       | 20,447              | 14,845| 5,602                       | 20    | 28   | 12     |

aData from (2).

However, such progress can by no means be considered satisfactory. The number of children in school is still no more than one fourth of the total number of children at school age. If this situation persists, it would mean that for a considerable time to come Iraq's people will remain predominantly illiter-
The Land Settlement Law

With conditions as mentioned above, the government felt the need for reforms but it was not until after World War II that the movement for amelioration of the conditions of the farmer and the initiation of agricultural reform began in Iraq. In 1945 the first planned scheme of resettlement was initiated in "The Dujailah Land Development Law". As a result of this Act over 1,000 small land holders were settled at government expense. This law was replaced in 1951 by "The Miri-Sirf Land Development Law", which was further supplemented by Ordinance No. 52 (1952) and amended by Ordinance No. 4 (1952). The 1951 law provided for the reclamation and development of all arable Miri-Sirf lands (state-owned lands) and their distribution to qualified fallahin who applied for such lands. Selection of the settlers and administration of the finished project was the responsibility of a special committee named "Miri-Sirf Land Development Committee". This committee which was attached to the Ministry of Development has been concerned with the granting of state land to settlers in certain areas and following up with programs of development under the authorization of the Miri-Land Development Law. According to this committee in its Agricultural Reform and Land Development report, the Miri-Sirf Land Development Law
has six main objectives (57, p. 34):

1. Improvement in the techniques of production and the expansion of agriculture.
2. Assistance and encouragement of the fallahin, and the creation of a class of small peasant proprietors.
3. Full employment of the agricultural labor force.
4. The orderly settlement of nomadic tribes.
5. The creation of modern rural society.
6. Reclamation and exploitation of all state lands.

The law recognized as state owned land (Miri-Sirf) any land which has been or will be adjudged government owned land by the cadastral survey. This land was reserved to be developed and distributed to small holders within the provision of the law. However, land which can only be irrigated by high-lift pumps can be granted in large lots up to 5,000 donums (3,100 acres) to individual holders. Article 12 of the Miri-Sirf Land Law makes the above clear by stating that:

The following should not be disposed of except in accordance with the provisions of this law:
- Irrigated Miri-Sirf land
- High Miri-Sirf land annexed to the irrigated areas and which can be irrigated by low lift pumping
- Mountainous lands
- Rainfall lands

As to the other Miri-Sirf lands which require pumps for their irrigation, they should not be disposed of in any way, by areas exceeding 5,000 Mesharas to one person provided he has no holdings on other lands.
Development projects were distributed in units, the size of which was not to be less than the following:

a. 2,000 donums (1,240 acres) in mountain areas
b. 20,000 donums (12,400 acres) in gravity and pump irrigated areas
c. 80,000 donums (49,600 acres) in rain fed areas.

This land was distributed in plots among the fallahin, each of which was not to exceed in size:

a. 20 donums (12.4 acres) in mountain areas
b. 100 donums (62 acres) in gravity-irrigated areas
c. 200 donums (124 acres) in low lift pump areas
d. 400 donums (248 acres) in rain fed areas
e. 500 donums (310 acres) in high lift pump irrigated areas.

These plots were to be distributed among those who had no land. For those whose lands were less than the fixed unit for distribution, the committee might supplement their areas to equal the determined unit size. Application for land was to be presented to the committee with the necessary documents certifying that the fallah is of Iraqi nationality, with no infectious diseases, and at least 18 years of age. Other information, such as the person's place of residence, present occupation, family size, and past experience was also to be provided to the committee.

The committee studies the application and chooses the
required number on the following basis:

a. Priority is to be given to persons living in or close to the land to be distributed according to their family size.

b. 20 per cent of the lands is to be allocated to graduates of agricultural schools and to retired police and army officials who have served with the government for at least four years on the proof of their ability to farm.

c. 25 per cent of the land is to be allocated to retired civil officials who have served with the government for at least 8 years and to graduates of primary and religious schools on proof of their ability to farm. (81, p. 72)

Articles 8 and 9 of the Law deal with benefits and obligations to the fallahin. One of the benefits to the settlers is that the land is to be given to them free. They receive full tapu (title) to their plots after ten years of continued occupation and development. In the event of death of the settler before the expiration of the ten-year period, his rights and duties are inherited in common by his successors. On the other hand, if the death of the settler occurs after the ten-year period, the farm unit may be divided among the successors provided that the share of any of them is not less than the quarter of the total unit's acreage. Otherwise the unit must remain in common ownership. Another benefit to the settlers is that they borrow from the Agricultural Bank up to I.D. 100 ($280) at 3 per cent interest to be paid back in yearly installments over a period of five years. In case of flood or crop failure, payment may be deferred for one year.
During the ten-year period, the settler may not alienate, rent, or grant to anyone else the right to farm part or all of his unit; nor may he enter into any agreements whatsoever concerning the land or the crop. For ten years, after receiving full title, the settler may not alienate his land in any way, but he may mortgage the unit with the Agricultural Bank. The settler is required to establish an orchard, the area of which is to be determined by the governmental authorities. Furthermore, he must adopt technical methods of cultivating the land in accordance with the committee's decisions. He must also build a dwelling on his land for himself and for his family and assistants, according to the plans and specifications of government authorities. Government authorities will plan the whole settlement including houses and public buildings. The last of the obligations of the settler is that he is required to devote to the land all his time and the time of other men in the family. Nor may he leave his land for more than five days without the knowledge of the government officer in charge (81, p. 75).

Considering the domination of the Mallakeen over the government apparatus and parliament, Law No. 43 for 1951 has accomplished more than might have been expected. The committee has distributed more than 2,221,271 donums to 15,492 settlers. About 3,434 settlers received an area of 232,960 donums, which was included under the committee's five-year
plan (1954–1959) (81, p. 75). This plan provided for the reclamation and development of about 2,500,000 donums (1,550,000 acres). In settlement programs such as this, the government hoped to lead the rural population to better economic and social conditions.

According to official sources, between 1945, when the first law was enacted, and 1955, over 2.7 million donums (1.7 million acres) of state land were distributed (90, p. 91). Of this number, about half a million were developed in settlements under close government supervision and planning. The remainder was distributed without reclamation or assisted development. Table 10 shows the distribution of Miri-Sirf land on the land settlement projects (namely, Dujailah, Shahrzoor, Harwija, Latifiya, Musayyib, Makhmur, and others) up to 1955.

In the following few pages, some of the settlement projects that have been established by the provisions of Law No. 43 for 1951 will be discussed.

The Dujailah Settlement Project

The best known settlement established by the law (1945) is the Dujailah project. The project consisted of some 180,600 acres of semi-desert, which receives six inches of rainfall annually. A canal was constructed to divert water from the Tigris to those uncultivated state lands.
Table 10. Distribution of Miri-Sirf land; number of persons on settlement; number of holdings; total area of holdings in donums up to the end of 1955

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Number of persons</th>
<th>Number of holdings</th>
<th>Total area of holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dujailah</td>
<td>14,320</td>
<td>2,864</td>
<td>373,990</td>
</tr>
<tr>
<td>Shahrazoor</td>
<td>2,545</td>
<td>509</td>
<td>33,830</td>
</tr>
<tr>
<td>Jawija</td>
<td>1,595</td>
<td>319</td>
<td>23,300</td>
</tr>
<tr>
<td>Latifiya</td>
<td>2,325</td>
<td>765</td>
<td>23,250</td>
</tr>
<tr>
<td>Musayyib</td>
<td>875</td>
<td>175</td>
<td>10,500</td>
</tr>
<tr>
<td>Makhmur</td>
<td>930</td>
<td>186</td>
<td>17,700</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>22,590</td>
<td>4,818</td>
<td>482,570</td>
</tr>
<tr>
<td>Karma</td>
<td>3,590</td>
<td>718</td>
<td>70,671</td>
</tr>
<tr>
<td>Saddah</td>
<td>325</td>
<td>65</td>
<td>5,200</td>
</tr>
<tr>
<td>Sanjar</td>
<td>39,350</td>
<td>7,870</td>
<td>1,568,750</td>
</tr>
<tr>
<td><strong>Lands in other areas</strong></td>
<td>14,680</td>
<td>2,936</td>
<td>169,870</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>57,945</td>
<td>11,589</td>
<td>1,814,491</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>80,535</td>
<td>16,407</td>
<td>2,297,061</td>
</tr>
<tr>
<td><strong>Lands distributed but unidentified</strong></td>
<td>n.a.</td>
<td>n.a.</td>
<td>424,210</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td></td>
<td></td>
<td>2,721,271</td>
</tr>
</tbody>
</table>

aData from (57, p. 7 and p. 141).

bThis figure seems suspect since up to the end of 1953 only 131,700 donums had been distributed. Other data indicate that land distributed and actually irrigated in the project amounts to 165,650 donums. The explanation may be that the 373,990 figure shows the land actually distributed, not all of which is yet under cultivation. Also the number of the holdings seems suspect (i.e. 2,864). Other data indicate that they numbered 1,523 in 1955.

cThis total seems suspect. The Minister of Development stated that up to March 1956, 2,416,254 donums had been distributed (Iraq Times, March 29, 1956).
By 1955, the Dujailah settlement had grown into a prosperous community of 2,820 families comprising about 15,000 persons (90, p. 96).

The government has in the area four experimental nurseries and the same number of greenhouses and demonstration farms. These facilities develop and adapt new varieties and techniques and demonstrate their use. They also supply young trees for planting in the orchards. Also the settlers were offered the advice and services of the agricultural supervisors of the project (81, p. 82).

In 1947 a cooperative system was initiated in Dujailah. This was a new adventure in Iraq's agriculture. The settlers, with the aid of the government, organized into a general purpose cooperative with consumer and producer sections. Goods were sold at low prices at the cooperative shops, also tractors and trucks belonging to the association were rented to the settlers for a small charge. By 1951, the producer section of the association owned ten tractors, ten plows, two trucks, a small flour mill, a club house and many shops (81, p. 83).

Aside from the emphasis placed on the development of agriculture, the government was concerned with the supplementary occupations which would provide employment to the settlers and their families. With the help of UNESCO, the government has established a modern textile plant, a machine
shop, and a carpentry and cabinet-making shop. These industries provide the settlers with essential, cheap, locally produced articles and services. It also trains the settlers and their children in complementary industries and absorbs concealed unemployment in Dujailah (90, p. 101).

Education service for the settlers includes a fundamental education program which was established in 1950 with the help of UNESCO. By 1955 six schools for boys and one for girls were operating, with about 650 students and 20 teachers. One of the boys' schools and the girls' school were established and run by UNESCO. UNESCO also runs a clinic which, in addition to treating patients, serves as a demonstration unit to teach women sewing, child care, habits of cleanliness, etc. (90, p. 101).

From the preceding description, it appears that the Dujailah project has been quite successful. Settlers who were formerly poor sharecroppers now have incomes three or four times the former level. There is no doubt that they are now far more prosperous and contented. "An index of the status of the settlers is that in Iraq it is said, 'you can tell a Dujailah man from the way he walks'." (90, p. 101)

On the other hand the project has been criticized because of the failure to install drainage facilities, which has resulted in the salinization and abandonment of some plots.
Hawija Settlement Project

Since the number of applicants for Dujailah land exceeded by many times the number of plots available for distribution, the government has established several other settlement projects. In 1946, the Hawija project was established. This project covers an area of 181,600 donums (112,592 acres) along the left bank of the Lesser Zab, about 60 kilometers west of Kirkuk (81, p. 99). The government allocated about 560 donums (347 acres) for a nursery, greenhouse and a demonstration farm which has supplied the project's settlers with about 25,000 fruit trees for their orchards. Another 60,000 ornamental and shade trees were supplied by the demonstration farm to be planted along the project roads and forest to serve as windbreaks and for recreational purposes. In addition, a modern poultry house was established to acquaint the settlers with methods of hatching and raising productive and healthy chicks (81, p. 99).

The health services in the Hawija project included a clinic established in 1952, where a number of simple cases have been treated. The clinic, however, lacked modern equipment and no doctor has ever been appointed for it. The educational services include a school which is serving children of families living close by.

In 1953, with the aid of the Department of Cooperatives, five credit societies with a total of 183 members were
organized in Hawija. This cooperative, with the help of the Agricultural Bank was able to extend quite a number of small loans to settlers in Hawija (81, p. 101).

Several aspects of the project still need improvement. For example, the school in Hawija can fulfill only part of the need of the area. The clinic needs modern equipment and a regular doctor to treat the trachoma, bilharzia, and malaria that are prevalent in the area. The project's settlers should be aided in the application of modern agricultural technology such as tractors, fertilizer, and better and more varieties of seeds of high quality.

**Latifiya Settlement Project**

The experience gained in the Dujailah and the Hawija projects were applied in the Latifiya Settlement, which was formed in 1952. The project occupies an area of about 25,000 donums (15,500 acres) on the Latifiya Canal, about 50 kilometers south of Baghdad.

In 1952, 425 settlers were selected and settled on the 50 donum farm units in Latifiya. About 60 per cent of those settled were from tribes living close to the project, the remaining 40 per cent were from retired civilians and military officials and religious school graduates (81, p. 122). By 1955, there were 765 holdings with 2,325 persons living on the settlement (90, p. 101).

To make some provision for education, the authorities
have established one primary school in the settlement. By 1955, the school had 142 students including 24 girls (90, p. 102).

Loans, supervised by the government, have been extended to many of the settlers to be spent on the needs of the farm. By 1955, the Ministry of Finance had secured more than 130 loans to settlers in the project, to be paid back to the Agricultural Bank within a period of two to five years.

The average annual income for settlers in Latifiya, is about 200 dinars ($560), well above the average of the country. As a matter of fact, this income is almost three times higher than the average income of Iraqi fallahin (90, p. 102).

The Greater Mussayib Settlement

The greater Mussayib Settlement is believed to be the largest reclamation and land settlement program in the Middle East. The project consists of about 210,000 acres, of which 155,000 acres are reclaimed state land and 54,000 acres are privately owned. It is located about 15 miles from Hilla on the Greater Mussayib Canal. The irrigation and drainage works for the whole project were completed by 1956 after three years of hard work (81, p. 179).

As a start the authorities have selected 431 landless fallahin out of some 30,000 applicants. It is believed that the project will settle about 15,000 and benefit about 35,000 directly (81, pp. 179-190).
As in other projects, technical assistance and loans were provided to settlers to build low cost, healthful houses and carry out their farm work.

Other land settlement projects

The number of fallahin applying for land has exceeded by many times the number of tracts available for distribution. Based on the apparent success of the projects established, the government of Iraq decided to sponsor and supervise more settlement projects to help more fallahin. Shahrazoor, Sinjar and Makmour are land settlement projects supervised in a fashion similar to the ones discussed.

The Shahrazoor project covers an area of some 33,000 donums in a rolling valley cut by many streams and endowed with a number of beautiful natural springs. It consists of four non-contiguous areas referred to as Muan, Delain Koro, Delain Joro, and Mulwan.

The Singar project covers an area of about 1,568,750 donums (972,625 acres) and is located about 75 miles from Mosul City. The 7,870 settlers of the project are distributed among 25 villages. Most of them are Beduins (nomads) who have settled recently on the land.

The Makmour project which was established in 1955 covered an area of about 17,700 donums (10,974 acres) and settled 186 families. The settlement was used to provide permanent homes for the Barazuneien, a Kurdish Sect that has been a
political problem for the regime.

These projects were established under a program similar to that of Dujaila, Hawija, Latifiya, and Mussayib. Experimental farms and nurseries were established so that farmers could learn modern agricultural practices. Health and education are the two fundamental components, together with economical prosperity which form the corner stone for a better living. Realizing this, the authorities have established schools and clinics in those projects to provide the settlers with knowledge and medicine.

Supervised loans were extended to Makhmour and Sanijar settlers to free them from the hands of the money lenders.

**Evaluation of the Land Settlement Law**

The Land Settlement Law may be said to have some resemblance to the American Homestead Act of 1862. Both the Homestead Act and the Settlement Law provided for free homes for landless farmers. However, while the Homestead Act required five years residence and development in order for the settlers to have the land registered in their name, the Settlement Law requires ten years for such a purpose. Furthermore, the Settlement Law prohibited settlers from selling the land within another ten year period following the registration of the land in their name. This restrains the market-ability of the land for a period of 20 years.

Alwan argues that the restriction on the marketability
of land has advantages and disadvantages to development. He stated that:

(It) has disadvantages to development by creating barrier between the agricultural sector and other sectors of the economy, by hindering the mobility of resources from the farming sector to other sectors and vice versa. However, in the case of Iraq this policy has its justification and may turn out to be advantageous socially and economically. Because, if the marketability of land is not restricted the poor peasants may be induced to sell their lands to absentee landlords from the city or to tribal sheiks; this would allow feudalism to creep into the new settlement project and turn the settler again into tenant. (5, p. 343).

The maneuver on the part of the government to develop the enormous areas of miri lands (state lands) and then to distribute them into small holdings to landless fallahin and others, as a measure of land reform has its merits and demerits when considered from the point of view of economic development of the country in general and the development of agriculture in particular. The short-run and long-run effects of the Land Settlement Law are considered in discussing its merits and shortcomings.

Among the merits of this settlement scheme is that it starts as early as possible to mitigate the problems of landless fallahin and their poverty without any political change that would counter-balance the power of sheiks and other large mallakeen to redistribute the excess portion of their estates to the actual cultivators. Thus, the government movement for reform was described by A. S. Alwan, as:
... an early attempt to work within the existing circumstances without much disturbance in order to enable some peasants to win their independence and dignity. It is a movement to create small islands of prosperous and progressive farming in a sea of backward and feudal farming. It is an attempt which is based on the hope that by creating land settlement schemes for the landless peasants a shortage of labor would develop on feudal farms through the movement of peasants from these farms to the new settlement schemes and thereby the bargaining power of those remaining on the lands of big landholders would be improved, with the landlords finding themselves compelled to offer better conditions to their tenants. (5, p. 354)

Among the other rewards and advantages of the Land Settlement Law projects is that they have served as laboratories to test the operation and effectiveness of the new land tenure (owner-cultivator) system which was designed so that in the future it could be advanced to replace the feudal system. This system has proved successful. Productivity per acre of land on the Land Settlement Law projects has averaged three times higher than that on neighboring lands belonging to sheiks. When the farmer enjoys security of tenure he works harder and produces more and of better quality. Most of the settlers in these projects enjoy now a better life, because not only their income has been increased, but they get much more out of every dinar they spend through their own cooperatives, they enjoy a healthier life, their children are better educated, their houses are cleaner, and above all they have the security. They are sure that the land they till is theirs and that no one on earth can ever claim it.
However, several criticisms of the Law and its operation have been made. There are shortcomings and disadvantages which must be given serious considerations.

First, an important question is the provision of the Law which allows up to 45 per cent of settlement projects to go to Army personnel, civil officers, and agricultural school graduates. This provision is criticized because it cuts down the amount of land available to the fallahin, whom the Law is supposed to settle and protect. Also, it is doubtful that the Army personnel, civil officers and school graduates would be sincerely interested in farming the land themselves, but would be more likely to rent it to others. This, then, would frustrate the intent of the Law.

Furthermore, it is a well-known fact that the economic development of Iraq depends to a large extent upon increasing the efficiency of agriculture and upon moving people away from farming into urban occupations and not the other way around. Therefore, a policy based upon encouraging urban people to become farmers where about two-thirds of the population is already engaged in farming is a defective one from the point of view of economic development. Alwan, expressing the same point, states that:

Poverty cannot be eliminated by increasing the number of people engaged in agriculture; rather it more likely could be eliminated by effecting a structural change that results in movement away from agriculture. No nation has ever attained a high standard of living with more than 50 per cent
of its people occupied in farming. The experience of all advanced countries shows that national wealth and income tend to vary inversely with the proportion of the occupied population which is engaged in agriculture or other primary production. (5, p. 359).

Thus, a sound policy must aim at increasing the over-all productivity in both the urban and rural sectors of the economy, and in order for income and wealth to be increased or for poverty to be reduced under conditions of economic development, there must be a decrease in the proportion of human resources employed in farming, and an increase in the proportion employed in manufacturing and tertiary industries.

Second, it may be argued that it is morally wrong to give away the land to the settlers, and that they may be appreciative of its value if they paid for it. In principle it is inequitable that no payment should be required for these extensive benefits, particularly in relation to those who are not fortunate enough to be selected as beneficiaries.

The land settlement projects have cost the government considerable amounts of capital outlays for improving and irrigating the projects' land. It has been estimated that the Dujailah scheme has cost about $1,000 per family or $16 per acre (5, p. 360). Thus, if no charge is made the immediate effect will be shown in widening the gap in economic status between the favored settlers and those who were not selected for a land grant. Moreover, it may be argued that "nonpayment may lessen the incentive of the settler to take care of the
land and may, therefore, result in a decline in productivity" (5, p. 360). Therefore, some charge should be made in order to enhance the value of the land in the eyes of the settlers.

A government committee was organized to study the questions of land distribution and water rights and to investigate the possibility of charging all future settlers the value of the land and costs of construction and operation of the settlement procedure. The decision of the committee was that no settlement schemes should be undertaken unless the repayment capacity of the project is sufficient to pay the annual costs for operation and maintenance of works specifically for use of the scheme. Thus, the committee recommended that the settlement schemes be as financially self-supporting as possible. This is, in some ways, the ideal policy to undertake, but the experience of other countries with similar projects indicates that this "ideal" can not be attained. The experience of the United States may be cited. In 1918 the United States Federal Government made irrigation water available to 27 projects. Five of these projects were later abandoned because there was no possibility for the settlers to repay the cost. Accordingly, the entire cost of these projects was written off. Moreover, a portion of the cost of the remaining projects had to be delayed. On some of the operating projects at present, the write-offs range up to 70 per cent. Furthermore, the period of repayment for many of the remaining
projects is more than 40 years (49, pp. 87-93).

Consequently, it is believed that the settlers should not bear the whole cost of the settlement projects, as recommended by the committee. It is not a bad policy for the government to subsidize the poor fallahin. Alwan, who is presently (1965) the Agrarian Reform Minister, feels that:

... at least one-third of the total costs of the projects should be written off and hence no more than two-thirds of the cost should be charged to the settler; otherwise, the whole settlement projects may be jeopardized by the inability of the settlers to repay. (5, p. 369)

Thus, new settlers should pay part of the cost over a number of years.

Third, the size of the farm units to be assigned to each settler needs to be adjusted. Fundamentally the allotment should not be bigger than that which can be managed by the average farm family without outside help. The size will, of course, depend on the tools and machinery that can be placed at the settler's disposal from the very beginning. The Law provides that the size of a unit is not to exceed 100 donums in the flow irrigated lands, 200 donums in the land irrigated by low-lift pump irrigation, 400 donums in the rain-fed zone, 500 donums in lands irrigated by high-lift pumps. These sizes were more than can be cultivated by one peasant assisted with the labor of his family. It is improbable, however, that a single family will be able to handle more than 100 donums. But if larger units are necessary in the rain-fed zone in view
of the uncertain yields resulting from irregular rainfall, a special effort may be made to organize cooperatives to own and operate machinery needed to till such units.

However, in later land settlement projects, the government reduced the size of unit granted in most cases to 50 donums in the flow irrigated zone, 100 donums in land irrigated by pumps, and 300 donums in the rain-fed region. Yet it is believed that the productivity of land should be made the main criterion in determining the size of land units. Therefore, if the objective of the land settlement projects is to establish a family size type of farming, there is no reason why lands irrigated by pumps should be granted in units larger than those irrigated by flow in cases where the productivity per acre is the same in both. On the other hand, since yields per acre in dryland farming are only one-third to one-fifth the yield in irrigated areas, the present differences in size of the irrigated and non-irrigated allotments appears to be inadequate.

In conclusion, with these difficulties the problem is too important to neglect and the country cannot afford the chaotic situation resulting from allowing feudalism to continue. Therefore, other means must be found to tackle the problem and provide the country with a system of land tenure that is most contributive to its economic, social and political development.
Recent times have brought a remarkable advance in the studies of economic development theories both in deepening of the problem-consciousness and in refining the method of approach.* This section is primarily intended to review current theories of development to serve as a background for developing an analysis of the Stages of Economic Growth in Iraq. Also, the implications of these theories will be appraised for developing an analytical framework of the Iraqi agrarian reform and economic development.

Recent Theories of Economic Development

According to Yoichi Itagaki there is a marked tendency in economic development theories toward the "stage approach" rather than "type approach" (60, p. 1). What is meant by the "type approach" is the way of thinking that "lays stress on the problem of how to grasp the structural characteristics of the areas destined for development" (60, p. 1). Itagaki emphasized that if the structural characteristics are considered to be "underdevelopment", then "a purely economic theory of development with a purely economic 'model' approach"

*Professor Higgins has presented a comprehensive review of the recent studies of economic development theories (47, pp. 85-431.)
may be formulated. If they are considered to be "backwardness", then "a socio-economic theory of development with socio-economic 'system' approach" may be constructed. And if the structural characteristics are considered not only to be backwardness "but to be colonial backwardness, a politico-economic theory of development with a politico-economic 'stage' approach" may be formulated. In the sense of Itagaki's argument, differences in grasping the characteristics (types) of the countries determine essentially the method of approach and the structure of development theory (60).

Itagaki argues that when speaking of a tendency toward the stage-approach from the type approach,

There can be no doubt about that it has a close connection with the deepening of the problem-consciousness in the type-approach, that is, from underdevelopment to backwardness and from backwardness to colonial backwardness. That a purely economic concept of underdevelopment in the type approach was taken over by a socio-economic concept of backwardness indicates that the heart of the development problem does not consist in the problems of mere capital formation, raising income, or industrialization, but in the problem of transition from stagnant tradition society to self-sustained modern society. If so, points of issue center around the measurement of direction, size, form, and pace of the structural changes which appear in the impact-and-reaction process of political, social, economic and cultural factors during the transition. Clearly, this is one of the important evidences of the deepening of the problem consciousness in the type-approach. (60, p. 1)

In much the same way that a socio-economic concept of backwardness gave way to a politico-economic concept of colonial backwardness "the problem of transition does not remain
a mere problem of structural change in such an evolitional process as a series of disintegration and reintegration of traditional society." However, it involves structural change in a revolutionary process in terms of a series of discontinuous "jumps", that is to say, a "system-change" of colonial backwardness (60).

Therefore, according to Itagaki, the deeper reflections on type-approach have attached a great importance to the concept of the transitional stage between stagnation and development. And in relation to that concept,

The really crucial point is that clear distinction should be made between the phase of continuous evolution and that of discontinuous revolution at transitional stage. In this situation of the problem-consciousness, one might readily recognize the significance of the stage approach. (60, p. 2)

However, a presentation of a more detailed explanation of how development strategy has developed in recent years is in order.

The basic problem of the economic development of lesser developed nations is how to enable them to change the state of their economy from slow moving or stagnant into a rapidly and continuously developing economy. True understanding of the importance of this problem would imply the significance of the transition from one stage to another that may be solved with a whole system of development policy, which includes development strategy, as will be shown later. From the standpoint of a purely economic approach, this was taken up by
C. P. Kindleberger as a problem of "developmental start" (69, p. 309).

Kindleberger asked the question: How does a country break out of the stable equilibrium or vicious circle of poverty into an area where the process of development becomes interacting and cumulative? Answering this question he had this to say:

In unplanned development, as in Western Europe, the most important dynamic force seems to have been the evolving character of the people, and particularly of the "new men", the merchants and bankers, who gradually worked themselves free from the confining embrace of feudalism. Where in Southern and Eastern Europe, the middle class was weak and ineffective, dependent upon the landed classes and subservient to them, it was because it had failed to reach the size and strength to enable it to challenge the old order. Up to a certain critical level of the middle class, the vicious circle perpetuates itself; beyond it, change becomes the established order—self perpetuating and interacting change in capital formation and technology.

The process has been historically slow. In Britain the Reformation of the sixteenth century led to political revolution of the seventeenth and the Industrial Revolution of the eighteenth century, before the rapid period of development in the nineteenth century. In France, Germany, Northern Italy, Western Austria, Bohemia, and Scandinavia, the pace was faster after a slow start. And in many areas—Southern France, Spain, parts of Italy—commercial revolution failed to be followed by industrial revolution for reasons which are not clear. (69, p. 309)

Concerning this problem of development start, that is to say, the problem of how to break the inertia of stagnant economy and how to gain momentum to start toward development, a theory called "Big Push" was first presented by P. N.
Rosenstein-Rodan (44). Such a theory advocates that the functional relationships among the casual factors in economic growth are full of "bumps" and "discontinuities"; hence a minimum effort or "big push" is needed to overcome the original inertia of the stagnant economy and start it moving toward higher levels of productivity and income. To interpret this fundamental concept, economists (47, pp. 384-394) often resort to analogy. Higgins used this analogy: "Leaning on a stalled car with gradually increasing weight will not get it started, for example; it needs a big push" (47, p. 384). The Center of International Studies at M.I.T. used another analogy:

There is a minimum level of resources that must be devoted to . . . a development program if it is to have any chance of success. Launching a country into self-sustaining growth is a little like getting an airplane off the ground. There is a critical ground speed which must be passed before the craft can become airborne. (109, p. 70)

Rosenstein-Rodan argues that, in order to overcome the stagnant economy at the initial stage of lesser developed nations, even "a minimum speed and size of investment" must be "big" enough to "jump" over the economic obstacles to development, if it is to have any chance of success. His theory is based on three theoretical assumptions of "Indivisibilities": (1) Indivisibility in the production function especially the indivisibility of supply of Social Overhead Capital (lumpiness of "capital"), (2) indivisibility of
demand (complementarity of demand), (3) indivisibility of (kink in) the supply of savings (the zero or very low price elasticity of supply of savings and the high income elasticity of savings). With these assumptions of indivisibilities Rosenstein-Rodan described his basic idea of growth at the development start. His "big push" theory, according to Itagaki, is said to be a theory of development strategy that uses a kind of "shock-treatment".

Gunnar Myrdal asserted that in backward countries where a general level of economic development is low, "backwash effects" always act strongly to offset "spread effects" under the free play of market forces that has the tendency to intensify inequality by "the circular causation of a cumulative development process" (84, p. 58). Myrdal illustrated that this tendency is much more excessive in backward countries that were under colonial rule. Iraq is regarded as one. He said that,

Colonialism meant primarily only a strengthening of all the forces in the markets which anyhow were working towards internal and international inequalities. It built itself into, gave an extra impetus and a peculiar character to, the circular causation of the cumulative process. (84, p. 60)

Yoichi Itagaki supported Myrdal's position when he stated:

The greatest remnants colonialism left over to the dependent countries can be seen in the fact that colonial society was not given 'national and economic integration,' which is indispensable for the
continuous and autonomous economic growth. The colonial economy can be characterized as 'enclave' economy, cut out and isolated from the surrounding economy but tied to the economy of the metropolitan country. Such segregation hampered transfer of culture, including technical skills and the spirit of enterprise, and therefore the spread of expansionary momentum, to the indigenous population. (60, p. 7)

In much the same way, Myrdal argues that the existence of the privileged classes such as the mallakeen class in Iraq, which are primarily interested in the social and economic "status quo" can be considered as a support of economic stagnation that is mainly caused by the social rigidities which are inimical to the strengthening of spread effects. He contends that fundamental problems of development in colonial backward nations must be to break the socio-economic barriers and rigidities which hinder upward cumulative expansion, and to realize a "national economic integration" in the country. Myrdal stated that,

Land reforms have their significance in the national plan not only as a precondition for raising productivity in agriculture, but primarily as a means of shattering the foundations of the old class structure of a stagnating society. (84, p. 81).

"Relations between relative lack of national economic integration and relative economic backwardness run both ways" (84, p. 51).

Myrdal concludes that to get rid of disequalizing factors and breaking colonial backwardness entirely depends upon
The national planning of national economic integration, that is, assigned to the function of "rational nationalism".

This suggests that the key problem of policy for backward nations at their development start is nothing but the problem of the "system-change" from colonial to national system.

The problem of 'stage-shift' from traditional, stagnant society to modern, developing society will not come up unless such problems as system-change are solved, so long as the traditional is given a characteristic of colonial backwardness. (60, p. 8)

From this standpoint, socio-economic approach and politico-economic approach together form a united front.

From what is stated above, the problem of "stage-shift" from stagnation to development means system transformation and eventually "system-revolution". Therefore, it can be seen that the problem of development "start in colonial backward countries must be viewed from a whole system of strategy and policy of economic development" (60, p. 8).

In this context, the term strategy means a kind of action designed to be most effective in making a shift from one phase to the other within the framework of a certain system. The term policy refers to a kind of action designed to be most effective in accomplishing shift from one stage to the other, changing the system itself within which strategy is to be operated (60).

Yoichi Itagaki suggests that policy theory for development of underdeveloped nations,
must have as its premise a certain historical socio-economic system (colonial socio-economic system, for example) and that it must be designed to be a theory of historical-practical formation, of which problem is likely not only sequential shift from one phase to the other but also discontinuous shift from one stage to the other. (60, p. 8)

Professor W. W. Rostow (95 and 97) presented a theory of the "Stages of Economic Growth". Rostow's stages of growth consist of five stages, that is (1) the traditional society, (2) the transitional society, (3) the take-off, (4) the drive to maturity, (5) the age of high mass-consumption. The most important stage among them is the third, "take-off" stage.

He opens his discussion of "The Take-off into Self-sustained Growth" with a statement of purpose:

The purpose of this article is to explore the following hypothesis: that the process of economic growth can usefully be regarded as centering on a relatively brief time interval of two or three decades when the economy and the society of which it is a part transform themselves in such a way that economic growth is, subsequently, more or less automatic. This decisive transformation is here called the take-off.

The take-off is defined as the interval during which the rate of investment increases in such a way that real output per capita rises and this initial increase carries with it radical changes in production techniques and the disposition of income flows which perpetuate the new scale of investment and perpetuate thereby the rising trend in per capita output. (97, p. 25)

According to Rostow, once society enters this stage, there is no more danger of reversion nor retrogression, and old blocks and resistances to steady growth are overcome.
That is to say that the society has arrived at the stage where sustained, regular growth becomes its normal condition. It is merely a matter of time and choice to advance the take-off stage to the stages of technical maturity and high mass-consumption. Categorically speaking, Itagaki reduced Bostow's five stages to three stages: "traditional, transitional, and modern. In other words the last three stages can be considered to be three phases of the stage of modern society" (60, p. 9).

No one has incorporated the concept of transitional stage in one's system as Bostow did. In this sense, his stage theory has a great importance in the policy theory for economic development of underdeveloped countries where much attention should be paid to the transitional stage that links the first and the third stage.

Special attention should be paid to the structural heterogeneity inherent in the traditional society that was under foreign power. In this society, "dualism or pluralism of power structures, economic organizations and cultural value-systems are generated out of the very reasons of having been once a colony," in addition to the stagnant characteristics common to all traditional societies (60). Also the tension and antagonism produced by the disequalizing factors at work in such a society have become forces that retard the switching over from the traditional to the transitional and the
shifting from the transitional to the take-off.

Present governments of underdeveloped countries, Iraq for example, are trying in the period of transition to take up or push forward a policy of "nationalization" in one form or another. This indicates that such governments claim to be released from monopolized domination of foreign enterprises with a view to eliminating the "deep-seated" disequalizing factors. The drive to "land reform" and "cooperatives" is nothing but the efforts to be set free from "parasitic exploitation of foreign Asiatics, money-lenders and intermediaries" (60, p. 10). Simply put, they aim at national economic integration by a "de-alienization" policy (41).

The existence of such internally disequalizing factors destroy the possibility of autonomous and spontaneous development from within the indigenous societies in underdeveloped nations, including Iraq. It is to be realized that the nature of the stagnant backwardness in a traditional society, such as that of Iraq is not so simple; the outlook for modernization of such a society in the transitional period is so complicated that the establishment of preconditions for take-off is very difficult. Thus, it would not be sufficient for the preconditions merely to invest social overhead capital and create the external economy. In addition there exists a need to eliminate disequalizing factors within the socioeconomic structures. This need raises the problem of "system
change" and eventually irritates the problem of "system revo-
lution". Rostow stated that communism:

... is a kind of disease which can befall a transi-
tional society if it fails to organize effectively
those elements within it which are prepared to get
on with the job of modernization.

For those who would prefer to see the aspiring
societies of the world not follow this particular
road to modernization in Asia, the Middle East,
Africa, and Latin America--the Communist technique
for mobilizing power and resources poses a for-
midable problem, almost certainly what historians
will judge the central challenge of our time; that
is, the challenge of creating, in association with
the non-communist politicians and peoples of the
preconditions and early take-off areas, a partner-
ship which will see them through into sustained
growth on a political and social basis which keeps
open the possibilities of progressive, democratic
development. (96, p. 164)

Stages of Economic Growth for Iraq

Following Rostow's stages of economic growth Norman
Burns, Deputy Regional Director for the Near East, Inter-
national Cooperation Administration, places Iraq in the second
stage of development "preconditions for the take-off" (15).
In the sense of Burns' classification one major precondition
is the establishment of a central government strong enough to
maintain internal order over a wide area so that people can
engage in economic activity in relative security--and at the
same time strong enough to protect those within against ex-
ternal attack.

This condition is often brought about by the
threat of external interference which stimulates
a consciousness of the general group interest (as distinguished from family, clan or sect interest) and a realization of the need to strengthen the central government to protect the group interest against the external threat. (15, p. 2)

Therefore, nationalism is often associated with and a pre-condition of the take-off.

Another pre-condition, according to Burns, is the emergence of some form of economic activity that will bring together in one enterprise enough people and capital to carry economic activity out of the purely handicraft stage and to focus emphasis upon more efficient means of production, labor saving devices, mechanization, the development of more intensive skills and an expansion of markets.

Such aggregates developed in England during the Seventeenth Century in textile manufacturing and coal mining, in the United States during the Nineteenth Century in northern factories and railroads, in Japan at the end of the Nineteenth Century in textile manufacturing and shipping. (15, p. 3)

During such a process people become aware that scientific techniques enable them to control their environment in a way that was never possible in the traditional stage when they had to rely almost entirely upon human and animal power. Scientific techniques such as machines and chemical technology give them the power that they never had in the traditional stage—to increase production tremendously and to raise their own living standards. Also,

The new technology--movie, radio, and automobile--enables them to learn how other people benefit
from the fruits of the new technology. Thus the new technology generates what some have called the rising tide of expectation of the masses for a better economic and social life. (15, p. 3)

Still another pre-condition (closely associated with the second pre-condition) to the take-off, as listed by Burns, is an improvement in agricultural production methods that will enable the agricultural sector of the population to feed not only itself but also the growing non-agricultural population needed in the take-off stage for industrial production and general services (such as factory workers, government employees, teachers, doctors, etc.).

In the United States for example, during the traditional stage at the end of the Eighteenth Century, the agricultural sector raised enough food to feed itself plus a non-agricultural population equivalent to one-third of the agricultural population. But today, the agricultural sector raises enough food to feed itself plus a non-agricultural population eight times that of the agricultural population. (15, p. 3)

Mr. Burns added that

A similar process seems to have started in the Arab Near East where large urban concentrations are developing (e.g. Cairo, Alexandria, Beirut, Damascus, Aleppo, Baghdad, Basra, etc.) and where urban proportion of the population is increasing relative to the rural. Near East industrial production is increasing faster than agricultural production. (15, p. 3)

The Arab countries, including Iraq, according to Burns have been passing through this stage—the pre-conditions for the take-off—during the last quarter of a century. Central governments, encouraged or forced by nationalism, have
strengthened their authority and widened the area of their authority to ensure order within for the people to expand their economic activity and protection from without that the Arab people may evolve along the lines of their own national aspirations.

Not only the foreign developed oil industry, but the multitude of locally owned textile, building material factories and food processing concerns which have sprung up since World War II, have brought people and capital together to focus attention upon improved production techniques, greater technical skills, wider markets, etc. The Iraqi people have acquired the spirit of economic growth. They have become aware of the potentialities of the new technologies, and are demanding economic and social benefits that they would never have thought of only 25 years ago (15).

The Central Government of Iraq, responding in greater degree to the popular pressures, has developed much of the infrastructure prerequisite for the take-off stage of economic growth, namely roads, railroads, irrigation projects, public water, sewage, hospitals and health services, schools, agricultural and vocational centers, and the like.

Mr. Burns illustrated such developments in the Arab World including Iraq. He stated:

Many modern factories and large irrigation works may be seen in most of the Arab countries today which have sprung up since the last war. The Administrative structure of the central govern-
ments has been expanded to include ministries of industry, public works and communications, public health, social welfare and education, bureaus of statistics, laboratories for public health, agricultural colleges which hardly existed, if at all, twenty-five years ago. Fiscal systems have been modernized to obtain more government revenue into productive development. In recent years the Arab States (Egypt, Syria, Lebanon, Iraq and Jordan) have devoted nearly one-half of their total central government expenditures to economic and social services, as compared with one-third for defense and police. Arab government expenditures on education alone have increased five-fold in the last fifteen years. The Arab States are now at the threshold of the take-off stage. (15, p. 4)

The take-off stage of economic growth is one of tension and acute problems. Population expands rapidly, with the birth rate remaining as high as in the past and the death rate decreasing as new technology spreads to public health. More people demand more things, and are determined to get more things. The rising tide of expectation of the masses becomes a dominant force in the take-off stage.

Nationalism that emerged in the pre-condition stage intensifies in the take-off stage when the awakened masses want to better not only internal conditions but also the position of the nation relative to the more advanced nations.

In the take-off stage resurgent nationalism and social reform march hand in hand. These powerful forces may alter the structure of the traditional society to create a new framework that will encourage more rapid economic growth, with the benefits spread throughout the entire population. (15, p. 4)

However, there is always danger that the forces of nationalism and social reform may diffuse themselves in an unproductive
struggle leading to a new but different solidification of the social structure that will benefit only a particular segment of the people at the expense of the majority and without improving economic and social conditions for the masses.

What particular problems face Iraq in the take-off stage of economic growth? The country is confronted with an expanding population insistent upon better living standards. The country has a population of about 7 million that is increasing at 2.3 per cent per year.* This means that within another 30 years the number of people in the country will double, and that means additional people to feed, shelter, clothe, care for, and educate. The only way in which living standards can be raised for this expanding population is to increase production faster than population. Therefore, Iraq is faced with an overwhelming need to accelerate its economic development. This, according to Burns,

... requires heavy new capital investment. Economic historians estimate that to achieve the desired rate of economic growth in the take-off period, new capital investment must reach 15 or 20 per cent of the total national income. In the traditional stage, new capital investment seldom exceeds 5 per cent of total national income. (15, p. 5)

Not only must economic development be speeded up but the increased output must be passed on to the masses if Iraq is to pass successfully through the take-off phase into full eco-

*For reference and calculations see Chapter II.
nomic maturity with higher real income for the great masses of the people. This crucial fact should be kept in mind by those who are concerned with the planning of economic development in Iraq.

How can the great human and material resources of Iraq be brought to bear more fully upon this problem? What are the planning guidelines that will encourage more rapid economic growth with the benefits spread throughout all classes of society?

Burns offers remedies or guidelines for the above problem. He advocates that the first guideline for planning economic development in the Arab countries, including Iraq, should be to emphasize agricultural expansion. This would have two major economic effects. It would provide food for local people, many of whom live on less than 2,000 calories per day.* This would also enable some of the Arab countries that are net food importers (Egypt, Saudi Arabia, Lebanon, Jordan, and Libya) to reduce their imports of foodstuffs, thereby releasing foreign exchange for the importation of heavy equipment and materials needed in their major economic development programs. Burns illustrates that:

Three-fourths of the Middle East people make their living from agriculture--yet the area of cropped land is small relative to population. The land-man

*For more on diet and nutrition in Iraq and other developing nations see Chapter II.
ratio—that is, the ratio of annually cropped land to total population of the country—is very low, i.e. only .3 to 1.0 acre per person in the various countries as compared with 2.3 acres per person in the United States. The area of cultivated land should be expanded, and this means irrigation since most of the available rainfed land is already in use. Water resources are available, if utilized. At present, 50 per cent of the Nile River waters, 75 per cent of the Tigris-Euphrates water and over 90 per cent of the waters of the Jordan, Crontes and Lattani Rivers flow wasted into the sea. Engineering plans have been made by the Arab governments to harness these waters, and some projects are already being carried out, but until these irrigation plans are implemented on a large scale (at large capital cost) it will be difficult to bring about a major expansion in agricultural production in the Arab Middle East. (15, p. 6)

Steps are being taken, in Iraq and other Arab states, to improve the agricultural production techniques. As a result of such measures, accompanied by expansion of cultivated acreage, the total food production has increased "52 per cent, and per capita food production 8 per cent higher, in 1956-57 than the 4 year pre-war average" (15). Among the desirable steps are agrarian reform programs, so that the cultivators will have a greater stake in increasing output that will belong to them rather than to the mallak (landowner). Iraq has already made great strides under its Agrarian Reform Law of 1958. Village aid projects, emphasizing health, educational, agricultural and vocational services for the fallahin, increase agricultural production and benefit the majority. Agricultural experimentation and demonstration farms, including agricultural extension services to bring knowledge of the
new techniques to the fallahin, have high priority in the agrarian development program in Iraq. Such developments have also been started in Egypt, Lebanon, Syria, Saudi Arabia, Jordan and Sudan.

A second guideline, suggested by Burns, is to expand industry so as to give the Arab countries a better balanced economy. One-crop exporting nations are usually too highly dependent upon world markets for a single crop to maintain stability in either their balance of payments, their government budgets or their general internal economy. Among local industries that might be encouraged are those dependent upon the processing of local materials, e.g. food processing and textiles, and those where transportation costs give local producers a competitive advantage, e.g. brick, cement, concrete pipe, etc. Local petroleum would provide a cheap source of power for such industries.

The expansion of local industry would be facilitated by the reduction of intraregional trade barriers. The Arab states have already made considerable progress since 1953 in reducing intraregional trade barriers, especially in agricultural products but less so in industrial products. The U.N. reports that only one-seventh of the Near East countries trade is intraregional, the great bulk of the trade being with western Europe. (15, p. 6)

The third guideline, according to Burns, would be to emphasize education in general, and agricultural and vocational training in particular, since implementation of the large agricultural and industrial development projects depends
upon the availability of skilled labor, agricultural specialists and engineers. Engineering schools such as that at Baghdad and Mosul, Agricultural colleges such as that at Abu Ghayib, and vocational trade schools in many parts of Iraq are already turning out a growing supply of trained experts. However, the total number is still small relative to needs.

The final guideline, that Mr. Burns suggested for planning economic development, relates to the need for capital. The development projects particularly those of an infrastructure nature such as highways, public utilities, irrigation systems, educational installations, hospitals and health services, etc. require great amounts of capital. The United Nations reported that the Arab States are short of development capital. The report stated:

Expanding national expenditures, public and private, for practically all the countries of the region, seem to have outstripped resources available from domestic sources. . . . The pressure on domestic resources— with the consequent dependence of the region on foreign sources of finance—has risen not only as a result of conscious collective efforts for economic and social betterment and for defense, but also because of a comparatively rapid population growth in practically all the countries of the region. (126, p. 2)

Iraq's oil industry has provided considerable capital that has been used for developmental purposes. The country has used 70 per cent of its total oil revenue for economic development. However, even with the oil income, the country is short of capital to accelerate economic development at a
rate where production will outstrip the population increase. In this connection, President Eisenhower made certain proposals before the United Nations General Assembly on August 13, 1958, that might make more development capital available to the Arab states including Iraq. He proposed:

That discussions be immediately undertaken by the Secretary General (of the United Nations) with the Arab Nations of the Near East to ascertain whether an agreement can be reached to establish an Arab development institution on a regional basis—which would attract international capital, both public and private.

Should the Arab states agree on the usefulness of such a soundly organized regional institution, and should they be prepared to support it with their own resources, the United States would also be prepared to support it.

The institution would be set up to provide loans to the Arab states as well as the technical assistance required in the formulation of development projects.

The institution should be governed by the Arab states themselves. (15, p. 8)

The Arab states, including Iraq, have formulated their own resolution relative to the current Middle East situation, which *inter alia*

... invites the Secretary-General to continue his studies now under way in this context to consult as appropriate with the Arab countries of the Near East with a view to possible assistance regarding an Arab development institution designed to further economic growth in these countries. (15, p. 9)
The Conceptual Approach to the Analytical Framework

The frameworks summarized above appear to be quite relevant and applicable to the study of agrarian reforms. However, with this as a background, we will attempt to formulate a conceptual and operational framework within which agrarian reforms are viewed as means toward the attainment of given objectives, especially the objective of economic development.

The analytical structure that Professor Tinbergen (122 and 123) designed in the area of economic policy will serve as a start. The theory of economic policy developed by Tinbergen may be analyzed in two inter-related sections. First, it may be analyzed in terms of the logic of his operational approach and second, the technical problems of application of the approach. Throughout the Tinbergen approach emphasis is laid on an "ad hoc" attitude in specifying the logical structure of a "qualitative policy" model. This is different, from the theoretical analysis, from "qualitative policy" such as the nationalization of an industry or the creation of a monopoly where a competitive market existed.

Mathematically, of course, this distinction is very important, because the ordinary difference or differential equations systems cannot very easily incorporate perturbations which are large. Similarly, in the classification of variables into targets and instruments (Tinbergen) has emphasized on a very practical approach depending on the judgment estimates of the technical experts and the policy maker. One consequence of this is that linearizing approximations have been frequently advocated for
simplicity of understanding of the interrelationship of a policy model. (105, p. 14)

Tinbergen's approach to the theory of "quantitative" economic policy may be summarized in terms of three basic components: a welfare function, a division of economic variables in four classes, and a structural model (116). The first component of Tinbergen's framework is the postulation of an objective welfare function which reflects the general interest of the population.

To circumvent the difficulties inherent in any attempt at making interpersonal and intertemporal utility comparisons, as well as the possible intran- sivity of the community welfare function, Tinbergen replaces the actual aggregate social welfare function of the community by that of policymaker's preference function of the citizens. (116, p. 3)

If this were not the case, then the leaders of the government would be replaced in the next election by a more representative group. Thus, the objective preference function of the policymaker includes the objectives of society that is taken as given by the leaders of the government.

The second component of the Tinbergen framework is the four general classes of variables. The endogenous variables, which are the economic phenomena per se, are said to be influenced by the exogenous variables, which are the data.

The endogenous variables are divided into (1) target variables which incorporate the immediate objectives of the policymaker. Such variables reflect the policymaker's preference function. Target variables may be either fixed or
flexible, for example they may appear in the form of fixed targets (e.g., 96% of labor force employed) or flexible targets (e.g., maximum output). (2) Irrelevant variables are the economic phenomena that are referred to as side effects caused by changes in the means of economic policy.

The exogenous variables are divided by Tinbergen as:
(1) Those under the control of the policymaker referred to as "policy means". These can be subdivided into (a) instrument variables that are of quantitative character and are used to adapt the economy to small and frequent changes in some of the other data. Instrument variables include interest rate, discount rates, rental rates, public outlays, capital investment, tax rates, and foreign exchange rates. (b) Structural variables are means changing the underlying structure of the economy, such as rights in land and jobs, resource organization, credit system, market system, resettlement system, labor system, built in stabilizers, and allocation of public investment between projects in an underdeveloped economy. (c) Reforms are alternations in the foundations of the society in terms of spiritual values and the essential relations between individuals. (2) The second class of exogenous variables is those over which the policymaker cannot exert any influence.

The third component of the Tinbergen model includes a specification of a system of structural relationships, reflecting such things as behavioral and institutional relation-
ships, as well as the technical relationships (production function). "The set of casual relations constitutes the 'model'" (116). If the period under consideration is short (less than one year), it can be postulated that the structure of the economy remains constant and can be approximated quantitatively. Professor Thorebecke asserts that

The parameters (structural coefficients) of the behavioral demand, supply, and other relations can be determined statistically (through least-square and multiple-regression analysis, for instance), or on a priori grounds. (116, p. 3)

The logic of the Tinbergen theory of economic policy is illustrated by Professor Fox (37) in schematic form as in Figure 1.

Let us take the standpoint of an Iraqi economist interested in determining the role which reforms the agricultural sector can perform as a means to the attainment of the end of economic development. For concreteness, let us postulate that we are looking at Iraq's economy from the standpoint of an economic advisor to the leader of the government of Iraq.

On the technical economic level, an accurate knowledge of the workings of the economy is needed. Let the certain economic variables that constitute the targets or goals of economic policy be a 2 per cent per capita growth in real income per year, 5 per cent increase in agricultural production per year, to maintain stability, and to improve education, housing, health, etc. (119). Let us assume that these are
Figure 1. The theory of economic policy

1Source: (37, p. 11, 122 and 123).

2Not subject to control by the policy-maker or level of government that sets the goals and uses the policy instruments in question.
System of structural relationships connecting all variables.

The "model"

Exogenous Variables

Policy Instruments

Endogenous Variables

Goals or "target variables"

Utility, welfare or "objective function"

"Data" or noncontrollable factors

Side-effects or "irrelevant variables"

\[ z_1, z_2, \ldots, z_j \]

\[ u_1, u_2, \ldots, u_k \]

\[ x_1, x_2, \ldots, x_a \]

\[ y_1, y_2, \ldots, y_i \]

\[ W \]
targets the Leader of the Government of Iraq would like to see the economy achieve.

The actual performance of the economy will depend upon two factors. In the first place, there are a number of factors that are "not controllable" by the Government of Iraq. Such variables consist of the number of persons in Iraq's labor force; Iraq's population; weather as it affects crop production; and economic and political developments in neighboring countries. The policymaker (the Leader of the Government of Iraq) cannot change these factors, but he can estimate or anticipate the values they will take during the year ahead.

If we know the net effect of a change in any one of the noncontrollable factors upon each of the target variables, we can forecast (with greater or less accuracy) the levels that each of the target variables will likely attain if there is no change in the present economic policies. (37, p. 10)

If the various sectors of the economy are found to be moving in the right directions and at the right speed, all objectives may be achieved without special effort. However, there is at the control of the policymaker a number of policy instruments that can be used to influence the target variables in the desired direction if it seems that the "noncontrollable" factors ("data") will not do the work. These instruments consist of all the actions legally permitted to the Government that will have an effect on the course of the economy. For
instance, the Government can increase or reduce the rate of spending on various projects; it can increase or reduce taxes; increase or decrease the interest rate, discount rates, wage rates, and rental rates. Special policies can be directed toward Liwa and local construction projects (through governmental grants), toward housing, toward agriculture and other industries or sectors of the economy.

To use such instruments with confidence the net effect of a unit change in each instrument upon each of the objectives or "target variables" should be known. In addition the policy instruments will have some "side-effects" on other economic variables. These variables, "irrelevant variables" as Tinbergen calls them, also are subject to influence from the "noncontrollable" or "data" factors (37).

The most difficult problem of all is to determine with sufficient accuracy the system of cause-and-effect or "structural" relationships connecting all of the above mentioned variables. "This system is called a 'model' of the economy" (37). Given an adequate model,

The problem of short-run quantitative economic policy is to use policy instruments in such a way that the specified economic goals are achieved in spite of disturbances arising from the noncontrollable factors. (37, p. 11)

The dependence of target variables on the "noncontrollable" elements and the policy instruments is reflected by the solid arrows in Figure 1, connecting the U's and Z's with Y's.
Professor Fox asserts that objectives of economic policy are such that it is not a matter of life and death that may be exactly hit. He illustrates with this example,

We might choose as one of our targets a level of unemployment of approximately 3.0 million workers. However if unemployment were larger than this, we would still prefer 3.5 million to 4.0 million and 4.0 million to 4.5 million unemployed. We might also prefer 2.5 million to 3.0 million. However, we might prefer 2.5 million to 1.5 million if the lower level of unemployment meant a very rapid rise in the general price level. Thus, we might prefer a 2.5 million level of unemployment and 1 per cent per year rise in the price level to a 1.5 million level of unemployment and a 5 per cent annual rate of increase in consumer prices. (37, p. 12)

When two or more economic objectives are competitive, in the sense that more may be gained of one only by accepting less of another, some system of weights, to provide a common denominator for them and to permit evaluation of certain combinations of values of the target variables, is required. Professor Tinbergen leaves the responsibility for assigning weights to the various target variables with the Leader of Government and not with the economic advisor. However, there may be discussion between the Leader of the Government and his economic advisor in the process of arriving at the weights or relative importances to the economic objectives. Professor Fox asserts that a conservative leader would assign different relative weights than would a liberal one. The set of targets might also differ somewhat between leaders. In addition, one leader might "resolutely refrain from using certain policy
instruments, while another might assign them an important place" (37).

The issue involved is illustrated by the slender arrow running from the policy instrument to the "welfare function", W. This function may be looked upon as a vote-maximization function, with each line of action carried to the point at which (in the policymaker's judgment) the votes gained by further action would be just offset by votes lost. The postulate is that the policymaker has tried to add up in some way the welfare of various groups of citizens so that the "welfare function" or "objective function" symbolizes his concept of "what is good for the country" (37).

However, the policymaker's "objective function" or "welfare function" may include some variables that are not present in the welfare functions of the individual citizens, or at least are not given the same weight by individual citizens as by the official. The policymaker has a greater flow of information and he has assumed "responsibilities for reconciling divergent goals". Professor Fox illustrates that,

In a democratic political system, it seems likely that the welfare function of the policymaker will be quite similar to those of the bulk of the citizens. Also, the citizens as voters presumably react to many of the same variables that appear in the policymaker's welfare function--high real income, low unemployment, relatively stable price level, and the like not only please the citizens as consumer but increase the likelihood that he will vote again for the party in power. So the "vote-fare" function and the "welfare" function may really not
be very different. The "vote-fare" function will, of course, include one major disturbing element, namely the strategies and pronouncements of the opposition party. (37, p. 14)

The present Iraqi government may not accurately reflect the "vote-fare" function of the individual citizens. Consequently, the policymakers' viewpoint may be incompatible with the individual preferences. Since the economist is to be concerned only with the means of achieving certain objectives, taking the latter as given, then we may assume that the society's "objective function" is represented by the "welfare function" of the present regime.

Given certain "structural relationships" or a "model" and assuming that the policymaker is operating in a relatively short period, the problem of economic policy becomes, . . . quantitative in the sense that instrument variables are used to achieve the specified economic goals (usually given in terms of predetermined fixed targets) despite the disturbances arising from the noncontrollable factors. (116, p. 3)

Simply put, once estimates have been made for the noncontrollable data and the values of the targets set, the problem of economic policy is nothing more than to solve the system for the values of the instrument variables that satisfy it (see Figure 1).

Professor Thorbecke asserts that when the means of economic policy change the existing structure or foundations of the economy, the nature of the problem becomes more compli-
cated since the model will be affected. "Economic policy becomes a much more arduous and tenuous task, taking the form of qualitative economic policy and reforms" (111). The goal of economic growth at an early stage of development will require the use of policy means that will change both the foundations and the structure of the economy. After the economy has reached an advanced stage of economic development, then economic policy becomes quantitative.

The Tinbergen framework summarized above may be quite relevant and applicable to the study of agrarian reforms. According to Professor Thorbecke, this framework has the advantage of providing a conceptual frame of reference within which: (1) different types of agrarian means may be distinguished; (2) the mutual compatibility and consistency of the objectives of agrarian reforms may be explicitly analyzed; and (3) the casual relationships between agrarian reforms, as means, and predetermined targets, such as economic growth, can be established by the model. In this context, in the case of most underdeveloped economies, the model would take the form of "rough empirical input-output, cost-benefit types of relationships" between agrarian means and policy goals (105, p. 596).

Professor Thorbecke asserts that the last setup requires both a theoretical knowledge of the impact of agrarian changes on economic development, efficiency, distributive justice or
whatever the objectives of the agrarian reforms are; and some
knowledge of the empirical relationships that prevail in a
developing economy. The first two steps are essentially of
a methodological and taxonomic nature. Professor Thorbecke
advocates a breakdown of agrarian reforms into types of
policy means as follows:

A. **Instruments** (essentially quantitative policy para-
meters requiring no changes in the structure of the
economy).

1. Changes in tax rates and in tax incidence, e.g., for
   and as between tenants and landlords in the agricul-
tural and industrial sector.
2. Direct or indirect subsidies, such as those on till-
age equipment and fertilizers.

B. **Changes in structure**

1. The introduction of credit programs and price sup-
port.
2. The allocation of facilities and funds for research
   on fertilizer, improved seeds, farm management, etc.
3. Public investment in social overhead capital such as
   the building of intra- and inter-village roads.
4. Public investment in irrigation projects and ferti-
   lizer plants.
5. Reclamation and settlement.
6. Improvements in credit and marketing facilities.
These changes could take the form of publicly supported rural credit banks, cooperatives, etc.

7. Extension service that would include the dissemination of new information concerning farm technology, crop diversification, farm management and adult education.

8. Larger public support of education, such as higher salaries for teachers, subsidization of teacher training school construction. (A change in the opportunities for education resulting from a change in the compulsory school age would be more in the nature of a reform.)

9. Training of rural population in the acquirement of new industrial skills.


C. Reforms (changes in the foundations of the economy)

1. Land redistribution; change in the property rights of various groups and individuals.

2. Land consolidation; reduction in fragmented and non-contiguous tracts.

3. Changes in tenancy arrangements, relating to distribution of the product (as between owners and tenants), terms of the lease, security of tenants, water rights, etc.

4. Nationalization of agriculture; collective farming.
Needless to say, the selection of agrarian means depends upon the ends to be achieved. Professor Tinbergen gives the following as major aims of economic policy in modern times:

(1) Maintenance of international peace.

(2) Maximum real expenditure per capita with "full" employment and monetary equilibrium.

(3) Improvement of distribution of real income or expenditure over social groups and countries.

(4) Emancipation of certain underprivileged groups.

(5) As much personal freedom as is compatible with the other aims. (105, p. 597)

These are the broadest aims. Professor Thorbecke specified the principal objectives of agrarian reform *per se* as follows:

(a) Productive efficiency, (b) economic growth, (c) greater equality in the opportunity to have access to and ownership of resources, in income distribution, and in status and security, and (d) justice, the rule of law, the elimination of exploitation. It is clear that the simultaneous attainment of all four objectives is only possible in a very limited way. Means designed to enhance the achievement of one objective may affect other objectives negatively. For instance, if some form of progressive taxation is used to equalize the income distribution, beyond a certain point the use of this instrument will affect growth negatively by reducing total private savings and ultimately capital formation in the economy. Another example may suffice to indicate the kind of conflict that may exist in the goals. The choice of investment programs in a densely populated, underdeveloped economy is a difficult one. The highest rate of growth will be achieved if the available resources are allocated to the investment program which leads to the
largest increase in national income. Now the choice of the process will depend on the prices of the factors. If the actual market prices are taken as the relevant parameters, the choice of project will tend to be more capital-intensive than is warranted on the basis of the opportunity costs of factors. The reason for this is that the institutional wage rate (often akin to the subsistence wage rate) is higher than the equilibrium wage rate—which in a number of underdeveloped countries would approximate zero. On the other hand, the scarcity of capital and entrepreneurial ability is such that the prevailing profit and interest rates are often below their equilibrium levels (marginal value product). Consequently, the use of accounting or shadow prices reflecting the opportunity costs (equilibrium prices) of these factors provides a better criterion for the choice of investment projects and programs for economic growth than if market prices were used. At the same time, it might violate the static conditions of productive efficiency, which are determined on the basis of the market prices.

Therefore, whenever the ends are not mutually consistent or compatible, it is essential that relative weights be attached to the ends and that all substitution rates as between ends be stated (i.e., indifference for the policymaker as between an increase of one per cent in the annual rate of growth and a 2 per cent change in the Gini income-distribution ratio). (116, p. ?)

When such quantitative weighting of the ends are absent, it is difficult to formulate policies, especially when some of the ends are competitive. (If all the targets were complementary and the barter terms constant, therefore independent of the level of objective attainment, the maximization of one of the ends would be equivalent to maximizing the objective welfare function) (116). In addition, some of the ends are essentially of qualitative nature (i.e. Justice) and therefore
not subject to quantification (116). Hence a limitation on the use of the Tinbergen approach. However it is possible to state whether a competing or complementary relationship prevails between targets and to offer estimates of the degree of substitutability among them. The policymaker is expected, in this context, to state a priority as between ends, that in turn may be transformed into the welfare function.

However, governments in control are not necessarily motivated by their own image of the welfare function of the society. Their purpose, as Professor Thorbecke has indicated, may be to maximize the chance of being "reelected and they will therefore behave according to some sort of 'vote-fate' function" (116, p. 8). Such a vote-maximization function as mentioned earlier, would involve a strategy by which policy means would be used as long as the total votes gained from such an action were larger than the total votes lost. It would appear that such a behavior pattern fits a number of agrarian reform laws undertaken by developing countries, such as the case in Iraq. As Professor Thorbecke asserts, this may explain the emphasis which these reform laws placed on distributive justice and equality as compared to economic growth.

It should be mentioned also that the Tinbergen theory of economic policy was clearly developed for the case of "short-run quantitative economic policy". However, this model pro-
vides a conceptual starting point for discussing non-economic policies and long-run or qualitative economic policies (37). No attempt is made to fit data to this model for several reasons, the most important being: (1) that adequate data are lacking or almost non-existent and (2) such an attempt would be a study by itself.

Clarification of Our Objectives

Our objectives are very similar to what Professor Thorbecke has listed. In the definition of agrarian reform measures given in Chapter I, the objectives of agrarian reform are identified. Similar objectives were stated by Von C. Dietze (25, p. 233) as:

(1) Economic efficiency.
(2) Social justice.

Other economists have stated as the major public goals of agricultural tenure as:

(1) contribute to stability in an unstable economy.
(2) Maximization of the output from resources.
(3) Give equality of access to resources among the individuals in society.

Professor Timmons suggested that the master objectives of economic policy include (1) maximization of social product and (2) optimization of income distribution (118, p. 277).

Implied in the statement of such objectives is the basic
concept that a human society must concern itself with land resources and that total social concern may superseded individual rights in individual units of land (30, p. 59).

Our problem can schematically be made clear by using Professor Timmons' graphic representation suggested in Figure 2. The diagram illustrates the gap between the purpose, goal, or end to be achieved and the consequence or result of a particular policy or practice. "If the consequence (the logical result) falls short of accomplishing the purpose (goal), a problem exists" (120, p. 10).

As viewed from an ex-ante sense, the problematic situation is the gap between "A", situation before the Law's enforcement, and "C", Law's objectives. Viewed from an ex-post sense, the problematic situation is the gap between "B", expected consequence (logical result), and "C", the Law's objectives.

The provisions of the Iraqi Agrarian Reform Law of 1958 are essentially means for achieving the objectives. The condition created after the enforcement of the Law may fall short of the purpose (ends, objectives, goals) to be achieved. This can exist because of limitations, uncertainty, and questions in regard to any action, insufficiency, and disagreement among the provisions, or incompatibility among the objectives. As empirical data become available, it will be feasible to execute an evaluation on a cardinal basis.
The "EX-ANTE" gap. Problematic Situation after use of agrarian reform (course of action, policy, practice)

"EX-POST" gap. Problematic situation before the use of agrarian reform (course of action, policy, practice)

Expected consequences

Practice

A Situation before the Law's enforcement

B

C Law's objectives

Figure 2. Problematic gaps before and after the use of the Agrarian Reform Law of 1958
Setting the goals sought is necessary in order to delimit the problem in terms of the gap between the goals to be achieved and the present state of progress toward these goals. If the desired goals are given (let us assume that the above mentioned goals can all be lumped together into that type of economic progress that leads to general improvement in the economic and social welfare of individuals), it remains, therefore, to inquire into the form of agricultural organization a land policy should foster in order to achieve the objectives sought.

Now, what kind of agricultural tenure and land use system should Iraq adopt for the purpose of economic and social development? Should the land policy in Iraq promote the system of owner-cultivatorship (family-farm) that is preferred in the United States because "it is a decentralized form of economic organization which has particular social and cultural advantages and because it is highly efficient in the production of farm products?" (101, p. 314). In addition, historical analysis shows that this system has the capacity to "promote very rapid expansion, and very rapid technical progress", and that Countries which today have the highest level of output per man in agriculture--the United States, Canada, Australia, and New Zealand--have done so on the basis of family farming and state control of land use. (135, p. 5)

Or should the land policy of Iraq preserve the prevailing landlord-tenant system, after the example of England where
this system is regulated and made compatible with the progress of the nation?

No one except a dictator can decide on one of these two alternatives and impose it upon the citizens. However, in a democratic state the answer to the above questions depends upon an examination of each system from the standpoint of (1) society's preferences and beliefs, (2) compatibility with other social and political objectives, and (3) contribution to the general economic welfare.

Let us assume for the moment that the above-mentioned alternative systems are in accordance with society's preference and beliefs, and are also compatible with other social and political objectives. As such the problem is reduced to one of choice among economic alternatives; and the science of economics is developed to deal with such problems. "Economics can help individuals to choose among the available alternatives the one that can provide them with maximum satisfactions of wants" (5, p. 380).

As a social science, economics can likewise serve the public policy of a nation by providing two important criteria or master goals for judging any of the alternative systems. First, does the proposed system of land lead to maximization of production at least cost? Second, does it lead to optimization of distribution of wealth and income? (118, p. 278)

The first question is concerned with the problems of
efficient allocation and adequate utilization of the available human and physical resources in order to achieve a maximum social product over time. This has constituted the science of economics since its start. The second question is concerned with the problem of inequalities in the distribution of wealth and income among families; it has until recently been neglected by economists, but has always been recognized by people everywhere (98). But insofar as it enhances the productivity of manpower in the country and leads to a higher economic stability, it is an economic objective also.

Since any adequate land policy should be designed to improve not only the conditions of property rights under which people work and live on the land, but the use of land resources as well, it becomes imperative to emphasize that the chosen land tenure system should fit these goals. Land use goals will fall mainly within the first economic objective of maximization of production overtime, while land tenure goal will fall largely within the second objective of optimum distribution. It is to be noted that through economic development both the maximization and distributional objectives should go increasingly higher as economic, physical and institutional obstacles are overcome (5, p. 381).

Also, the achievements of the distribution goal may involve adjustments in the distributive share going to each participant in the productive process to improve living levels of certain participants and to increase the total output. (121, p. 5)
From the review of economics of developing countries, we have distilled the above framework which will be used to test the Agrarian Reform Law of 1958 as a conditioning influence in economic and social development in Iraq. This is developed in Chapter VIII of the study.
CHAPTER IV. THE AGRARIAN REFORM LAW OF 1958 AND INITIAL RESULTS

Factors Contributing to the Enactment of the Law

The settlement projects of Law No. 43 (1951) as presented in Chapter II have been too slow to significantly affect the agrarian structure as a whole. Up to 1956, out of approximately one million families directly engaged in agriculture, only about 20,000 families have benefited from the Law (7,000 families have been settled on Miri-Sirf lands, and another 13,000 were given lands). In a period of perhaps 20 years only a small fraction of the increase in the rural population has been resettled. Furthermore the projects have not always achieved the goal of small owner-operatorship.

The trend in land distribution has in fact been towards greater inequality. In evaluating the Land Settlement Law, the United Nations has expressed that:

In the Arbil settlement it was the rich landowners who seem to have profited, and the same was the case with the Amara Law of 1952. This was to have relieved, at least in part, the unequal distribution of land, but in fact, merely confirmed the large landowners in the possession of the overwhelming bulk of the better soils—the methods applied in the resettlement projects were such as to limit the possibilities of reform. Some projects were not provided with the necessary drainage facilities and the amount of irrigation water was, as a rule, inadequate for intensive farming, so that cropping had to be based on the old fallow system with all its drawbacks. Furthermore, the size of holdings and the selection of settlers gave rise to 'petty landlordism' based on favoritism rather than the
establishment of prosperous small owner-farmers.  
(124, p. 48)

Furthermore, the system of tenure and the policies based on its acceptance discouraged improvement in farming practices and resulted in the neglect and the deterioration of the land already under irrigation.

The most tragic aspect of this neglect has been the failure to provide for the effective drainage of the land already cultivated, as a result of which the salinity due to the high water table has reduced yields of the best irrigatable land and threatens the subsistence of over half a million families.  
(124, p. 49)

Moreover, because of the political power of the Mallakeen in Iraq, it was difficult to enact any legislation that would have an adverse effect on their traditional rights. Several land reform measures have been introduced to the Parliament to amend and advance the Land Settlement Law, but all were defeated overwhelmingly. All measures were rejected, and nothing could be wrung out of the Mallak-dominated Parliament; even a law requiring Mallakeen to provide better living conditions for their tenants was defeated.

The pressure of population on the land, the increasing underemployment, and the unwillingness of the ruling class to make any contribution to the well-being of the people all combined to bring about the disenchantment of the Iraqi people. There appeared one and the only alternative for reform; that is through revolution.
The declaration of the Republic of Iraq on the 14th day of July, 1958, introduced a new Agrarian Reform Law. This Law deals with the division of feudalistic holdings into separate farms to be operated as independent units. The process involves the transfer of ownership or other changes in the system of land tenure and the redistribution of lands.

Such a program of land redistribution gives the rural population in Iraq the opportunity to own and work a piece of land which they consider a symbol of security. It also recognizes that widely dispersed ownership of the land promotes a healthy social structure and leads to development of responsibility and the encouragement of hard work for a better future. In overpopulated areas of the country, the population pressure may be relieved to some extent through the use of such a program, because small units rely heavily on hand labor, which creates additional employment.

**Objectives of the Law**

The Agrarian Reform Law of 1958 has as its objectives the raising of the level of living of the fallahin and to provide for the raising of their social standards. In addition the Law can be expected to increase agricultural production in the country as a major component of a growing national income.

The explanatory comment by Hudaib Al Haj Himoud, Minister
of Agriculture, on the Agrarian Reform Law stated the objectives of the Law in the following terms:

1. To destroy feudalism as a way of production and an imperialist asset, and to destroy the political influence which the feudal lords enjoy as a result of their ownership of vast areas of lands and as a result of directing policy in accordance with their interests and the interests of imperialism-influence which was used to place obstacles in the way of governmental administration. All this is done with the purpose of securing for the state machinery the possibility of traveling a sound road, in accordance with public interest.

2. To raise the standard of living of the great majority of the people; namely, the peasants, and to give them the necessary opportunity to raise their social standards in general.

3. To raise the standards of agricultural production in the country, which in turn will help raise national income and strengthen the national economy. (48, p. 2)

Thus, the crux of the problem lies in the low standard of living among the majority of Iraqis, which is the result of the low level of national income in comparison to the population, and the failure of increased production to provide suitable standards of living for the steadily growing population.

The statement by Mr. Himoud indicates the diversity in the objectives of the Agrarian Reform Law, economic, social as well as political objectives. The economic objectives aim at raising the standard of living through the acceleration of economic development. In these objectives are included the goals of the Law concerning increase in production and
elimination of agricultural underemployment. These objectives are essentially concerned with the allocation and efficient use of resources.

The social objectives of the Agrarian Reform Law, according to Himoud, are abolishing the social evils that had resulted from the unequal distribution of agricultural wealth. The political objectives, on the other hand, are implicit in the formulation of the economic and social objectives.

On the basis of Mr. Himoud's statement, it appears that the Agrarian Reform Law of 1958 will have achieved increased agricultural production (food production) as well as attaining distributive justice and political stability for Iraq. It is clear that these groups of objectives are closely interrelated and cannot be disassociated in the case of Iraq. However, the Higher Committee for Agrarian Reform classified the objectives of the Law into objectives directly associated with the welfare of the fallahin and objectives with a long range.

The objectives directly associated with the welfare of those who work the land (the fallahin) are: (1) To abolish the feudal system by expropriating the land in excess of a maximum limit. (2) To grant the land to its cultivators by redistributing the expropriated land among them. (3) To improve living conditions of the fallahin by establishing cooperative societies for the small owners. (4) To provide...
a more equitable division of income between landlords and tenants by fixing a maximum limit of land rent. (5) To provide security for tenants by fixing a minimum term for land leases. (6) To insure the rights of agricultural workers by fixing minimum wages and encouraging trade unions.

The long range objectives are: (1) To direct every new investment into industrial and commercial activities by fixing the maximum limit for land ownership. (2) To create from the fallahin a new class of small owner-cultivators who are independent. (3) To encourage land reclamation by permitting holders of desert or fallow land to own as much as they desire to attempt to reclaim. (4) To prevent any further fragmentation of the small-size holdings. The overall objective of the Law is the establishment of owner-cultivator class (family farm) through which the attainment of other objectives may be possible.

The objectives of the Law reflect the complexity of the problems which are entangled. The classification of the objectives into economic, social, and political objectives illustrates how the Law affects all aspects of the life of the fallahin. The distinction between long range objectives and objectives directly associated with those engaged in agriculture explains how the Law embraces the various strata of the farm population (38, p. 38).
Provisions of the Law

The Law introduced a radical change in the land tenure system of Iraq. Its major provisions are:

1. The maximum area of agricultural lands that can be owned by one person registered for him in the Registry Department or granted to him by concession, is fixed at 1,000 donums (620 acres) for irrigated land and about 2,000 donums (1,240 acres) for non-irrigated lands. With the approval of the government authorities, companies and societies may possess agricultural land exceeding the maximum limit, only if such lands had never been cultivated and if the carrying out of the work of the company or society lead to an increase in the area of cultivated agricultural lands or the development of the national economy of the country.

2. Landowners holding agricultural land in excess of the maximum prescribed above should submit a statement about their lands to the Higher Committee for Agrarian Reform. This organization is formed in accordance with Article 15 of the Law. It consists of the Prime Minister as a president of the organization, and the Ministers of Agriculture, Social Affairs, Interior, Finance, Development and Economy as members. This organization approves and publishes in the Official Gazette the names of the Mallakeen whom it considers to be covered by this Law.

3. Within a period of five years following the effective
date of the Law, the government is to take over land owned in excess of the limits. A Māllak whose land is seized by the government is entitled to compensation in the form of interest-bearing bonds redeemable during a maximum period of 20 years. If the seized land is under mortgage, concession or any other liens, the government will pay the landholder the value of the land less the debt, providing that the debt does not exceed the amount of the compensation.

4. The land thus seized and other suitable land in the possession of the government will be distributed according to Article 11 of the Law. Distribution is in such a way that each beneficiary receives a maximum of 60 donums (37.20 acres) of irrigated land or 120 donums (74.40 acres) of non-irrigated land and a minimum of not less than 30 donums (18.60 acres) and 60 donums (37.20 acres) respectively.

5. The distribution of land is restricted to Iraqi nationals who are farmers by profession and who own less than the maximum prescribed for new holdings. Priority is given to persons who actually cultivate the land. Next priority is given to those persons living in or close to the land to be distributed according to their family size and need for money. Only after these groups have been satisfied is land to be distributed to non-inhabitants.

6. Payments for land thus distributed is made in equal installments during a period of twenty years. Such payments
include the price of the land added to the value of the immovable installations, trees, machinery, and pumps plus 20 per cent of the compensation for the expenses of distribution and administration, with three per cent interest.

7. The new owners must themselves cultivate the land. Failure to do so may result in eviction after five years.

8. All uncultivated lands are to be seized.

9. In order to provide for modern, scientific, and technical methods of production, the establishment of cooperative systems at different levels of agricultural production is required in the country. Farmers who have taken over the land are required by the Law to join an agricultural cooperative society. The society may include other farmers whose land has not been taken over. These societies will have extensive powers and will function under the supervision of an official appointed by the Minister of Agriculture. Their functions include: (a) obtaining agricultural advances for members; (b) providing the fallahin with seed, fertilizer, cattle, agricultural machinery, storage and transportation means; (c) organizing the cultivation and exploitation of the land in the most efficient manner, including the selection of seeds and the grading of crops, fighting agricultural pests, and digging canals and drains; (d) marketing the principal crops on behalf of their members; (e) rendering all other agriculture and social services in the interests of the members.
10. Upon the enforcement of this Law, Law No. 43 of 1951 for development and exploitation of Miri lands was suspended (Article 49) until such time as a new law is enacted.

Stages of Execution of the Agrarian Reform Law

The execution of the Agrarian Reform Law is to be applied in stages: to expropriate what exceeds the stated maximum of agricultural land ownership of individuals, the valuation for fair compensation of owners, and the temporary management of the expropriated lands. Also the Law is to arrange the distribution of agricultural units to peasants and the formation of cooperative societies after the development of lands and completion of technical arrangements. A brief description of each stage is as follows:

1. The expropriation stage

This stage begins with the ascertainmant of the ownership of the persons subjected to the Law. After announcement of their subjugate, the expropriation committees concerned proceed to expropriate what exceeds the stated maximum ownership of the lands owned by those whose names are to be announced and to release off their ownership of the sections of lands not cultivated by them, without legal execute, all along the period defined by the Law.

After checking the decisions of expropriation and being assured of their rightness and that would attain the final
Judicive degree by the sanction of the Higher Committee for Agrarian Reform, then such decisions are to be published in the Official Gazette.

The procedures of this operation are as follows:

1. The Higher Committee for Agrarian Reform under the leadership of the Prime Minister will determine which landowners are subject to expropriation. The names of those subject to the Law will be published in the Official Gazette.

2. The list of names will be validated by investigation of statements of the landowners concerned. The Tapu office will confirm the avowals of the landowners and send the forms to an Expropriation Committee.

3. The Expropriation Committee will examine and appraise the subject lands in the presence of the landowners. In accordance with the Law, the maximum acreage permissible for the landowner will be set aside; the remainder will be expropriated.

4. The decisions of the Expropriation Committees will be published in the Official Gazette.

5. If the landowners concerned have any objection to the decision, they may appeal to the Agrarian Reform Court of Appeal within a period of 30 days. The Court issues its decision and presents it to the Higher Agrarian Reform Committee for final action.

6. After checking the decisions of expropriation and
being assured that they are correct the General Directorate of Expropriation and Assessment will obtain the registration of the expropriated lands in the name of the Ministry of Finance.

Figure 3 and Table 11 show progress in the expropriation stage between 1959-1964. By the end of 1964, the number of Mallakeen whose excess land was expropriated was 1,621 persons. The total area expropriated amounted to 7,020,123 donums (4,354,476 acres). It appears from the table that the expropriation work has accomplished the most in the five known feudal states of Mousl, Kut, Diala, Baghdad, and Basra. The number of Mallakeen whose excess land was expropriated in these four provinces were 920 or about 56 per cent of the total. The total lands expropriated in these five feudal provinces amounted to 5,254,787 donums (3,257,978 acres), about 70 per cent of the total expropriated lands. Figure 3 is a map illustrating the expropriated lands in all parts of Iraq.

Table 12 illustrates expropriated areas with respect to miri-lizma, miri-tapu, and mulk classifications of land tenure. It appears that the majority of expropriated lands were of miri-tapu (2,397,436 donums were expropriated), followed by miri-lizma (1,952,223 donums were expropriated), while only 17,369 donums of mulk were expropriated. According to the Ministry of Agrarian Reform the expropriation stage of the Law has progressed rather well, from a high in 1959 when
Table 11. Accomplishments of the expropriation works - area expropriated and number of persons whose land was expropriated

<table>
<thead>
<tr>
<th>Liwa (province)</th>
<th>Expropriation in 1959</th>
<th></th>
<th>Expropriation in 1960</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of persons whose land was expropriated</td>
<td>Areas expropriated</td>
<td>No. of persons whose land was expropriated</td>
<td>Areas expropriated</td>
</tr>
<tr>
<td>Mosul</td>
<td>73</td>
<td>598,254</td>
<td>75</td>
<td>386,215</td>
</tr>
<tr>
<td>Arbil</td>
<td>37</td>
<td>189,206</td>
<td>15</td>
<td>83,646</td>
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<tr>
<td>Sulaimaniya</td>
<td>31</td>
<td>225,793</td>
<td>1</td>
<td>1,564</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>4</td>
<td>15,951</td>
<td>15</td>
<td>112,862</td>
</tr>
<tr>
<td>Baghdad</td>
<td>45</td>
<td>248,423</td>
<td>21</td>
<td>72,464</td>
</tr>
<tr>
<td>Ramadi</td>
<td>--</td>
<td>--</td>
<td>2</td>
<td>16,640</td>
</tr>
<tr>
<td>Diala</td>
<td>21</td>
<td>183,745</td>
<td>53</td>
<td>156,865</td>
</tr>
<tr>
<td>Hilla</td>
<td>12</td>
<td>72,798</td>
<td>50</td>
<td>218,051</td>
</tr>
<tr>
<td>Karbala</td>
<td>--</td>
<td>--</td>
<td>13</td>
<td>25,720</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>13</td>
<td>134,669</td>
<td>27</td>
<td>238,155</td>
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<tr>
<td>Kut</td>
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<td>899,288</td>
<td>47</td>
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<tr>
<td>Amara</td>
<td>1</td>
<td>22,434</td>
<td>1</td>
<td>185</td>
</tr>
<tr>
<td>Nassiriya</td>
<td>--</td>
<td>--</td>
<td>18</td>
<td>73,978</td>
</tr>
<tr>
<td>Basra</td>
<td>--</td>
<td>--</td>
<td>9</td>
<td>29,510</td>
</tr>
<tr>
<td>Total</td>
<td>291</td>
<td>2,590,365</td>
<td>347</td>
<td>1,546,667</td>
</tr>
</tbody>
</table>

*Data from (55 and 56).*
Figure 3. The extent of land expropriation is shown by the shaded area.
Table 12. Expropriated areas according to land tenure classifications up to 5-31-1964

<table>
<thead>
<tr>
<th>Liwa</th>
<th>Miri-Lizma (Donum)</th>
<th>Miri-Tapu (Donum)</th>
<th>Mulk (Donum)</th>
<th>Total (Donum)</th>
<th>No. of Mallakeen subject to expropriation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mosul</td>
<td>507,683</td>
<td>845,221</td>
<td>--</td>
<td>1,352,904</td>
<td>176</td>
</tr>
<tr>
<td>Arbil</td>
<td>176,141</td>
<td>252,886</td>
<td>82</td>
<td>429,109</td>
<td>94</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>19,350</td>
<td>204,583</td>
<td>--</td>
<td>223,933</td>
<td>49</td>
</tr>
<tr>
<td>Sulaimaniya</td>
<td>12,276</td>
<td>178,827</td>
<td>14</td>
<td>191,117</td>
<td>36</td>
</tr>
<tr>
<td>Baghdad</td>
<td>129,733</td>
<td>88,811</td>
<td>2,304</td>
<td>220,848</td>
<td>101</td>
</tr>
<tr>
<td>Diala</td>
<td>107,067</td>
<td>165,407</td>
<td>9,901</td>
<td>282,375</td>
<td>105</td>
</tr>
<tr>
<td>Karbula</td>
<td>2,885</td>
<td>18,055</td>
<td>--</td>
<td>20,940</td>
<td>12</td>
</tr>
<tr>
<td>Hilla</td>
<td>175,829</td>
<td>137,528</td>
<td>--</td>
<td>313,357</td>
<td>52</td>
</tr>
<tr>
<td>Ramadi</td>
<td>22,750</td>
<td>5,133</td>
<td>--</td>
<td>27,883</td>
<td>9</td>
</tr>
<tr>
<td>Kut</td>
<td>513,813</td>
<td>400,223</td>
<td>1,957</td>
<td>915,993</td>
<td>120</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>252,360</td>
<td>85,975</td>
<td>--</td>
<td>338,335</td>
<td>73</td>
</tr>
<tr>
<td>Nassiriya</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Amara</td>
<td>32,333</td>
<td>--</td>
<td>--</td>
<td>32,333</td>
<td>9</td>
</tr>
<tr>
<td>Basra</td>
<td>3</td>
<td>14,787</td>
<td>3,111</td>
<td>17,901</td>
<td>9</td>
</tr>
<tr>
<td>Grand total</td>
<td>1,952,223</td>
<td>2,397,436</td>
<td>17,369</td>
<td>4,367,028</td>
<td>845</td>
</tr>
</tbody>
</table>

aData from (55).
2,590,365 donums were expropriated from 291 mallakeen to a low in 1964 when only 486,690 donums were expropriated from 96 mallakeen.

Due to political changes, the expropriation operation was not reported in detail for the year 1963. However, the Ministry of Agrarian Reform has reported that 1,070,418 donums were expropriated from 625 mallakeen in that year (55, pp. 12-20).

2. The assessment and compensation stage

Individuals whose land is expropriated are entitled under the Law to just compensation. According to Article 6 of the Law the compensation paid to landowners is limited to the price of similar land, less the value of the government's right in the registered land or land granted by concession, in accordance with the proportions defined by Law No. 61 for 1956 regarding the sale and correction of categories of government lands, or Law No. 40 for 1952 regarding the settlement of disputes of the lands of Nassiriya Liwa, or other laws. In addition, landowners shall receive compensation for immovable property and existing trees on the seized land as well as the value of pumps, machinery, and tools which the government may choose to seize. In the case of orchards, the landlords shall receive a share of the compensation in proportion to the diversion of the land and the trees between the landlord and the tenant in accordance with an official agreement or local usage. In the case of lands registered with the Tapu
office or granted by concession, if the land is owned by one person (the right of Raagaba) and the right of exploitation is owned by another (the right of tessurf), then the landlord shall receive two-thirds of the compensation and the exploiter shall be entitled to one-third. However if any other legal agreement exists between the landlord and the tenant then these shall be binding.

Another purpose of the assessment is to determine the charges to be made to the landowners. The price of a donum in each area shall be calculated by the division of the total sums of prices of equal lands in the area by the number of donums. To the value of the land shall be added the price of the immovable installations, e.g., trees, machinery, and pumps, in proportion to the areas benefiting from them. In addition, 20 per cent will be added to the compensation to cover the expenses plus an annual interest of three per cent. The total of the sums shall be paid off in equal installments within a 20-year period.

The Assessment Committee consists of a judge as a director of land registry, a property official appointed in agreement with the Minister of Finance, and an agricultural official. The Committee functions on the basis of an instruction regarding conditions and measures governing the appraisal of agricultural land and immovable property which is issued by the Higher Committee of Agrarian Reform. The assessment stage
is applied after the decisions of expropriation have been finally approved.

After checking and making sure the decisions of the Assessment Committees are correct, the Higher Committee of Agrarian Reform will publish them in the Official Gazette. Financial authorities will then arrange compensation bonds for reimbursement of the original owners.

The Compensation Division is in the Directorate General of Finance and Compensation, which in turn is attached to the Agrarian Reform Ministry. By the end of 1962, this division reported accomplishments, as follows:

1. Number of persons whose land has been expropriated is 1,000 persons.

2. Number of landowners who received loans for compensations is 978 persons.

3. Total loans in cash paid in compensation for lands is I.D. 731,723 (§2,048,824.40).

4. Total loans paid in cash in compensation for buildings, pumps and their accessories is I.D. 305,073 (§854,204.40).

5. Total paid value of pumps is I.D. 24,693 (§69,140.40).

6. Total amounts deducted from the owners and paid to the Agricultural Bank for payments of their loans is I.D. 209,043 (§585,320.40).

7. Total amount deducted from the owners and paid to other debtors is I.D. 46,085 (§129,038.00).

8. Net amount paid to the owners is I.D. 797,818 (§2,233,890.40).
9. Total amount paid as compensation up to May 31, 1962, is I.D. 1,173,873 ($3,286,844.40). (54a, p. 2)

3. The temporary management stage

The distribution of the seized land is a lengthy process. Time is required for surveying, for organization of the irrigation projects and for locating the position of the buildings. For this reason, the Higher Committee of Agrarian Reform has decided to arrange management of expropriated lands together with Miri-Sirf by renting them to their actual cultivators until such time as the distribution can be achieved.

The country was divided into three divisions for management of expropriated lands. The Northern Division includes Mosul, Arbil, Kirkuk and Salaimaniya Liwas; the Central Division includes Baghdad, Diala, Hilla, Ramadi, Kut and Kerbala Liwas; and the Southern Division includes Basra, Amara, Nassiriya and Diwaniya Liwas. In each division, a manager who will be attached to the Assistant Director General of the Agrarian Reform Institution will be in charge. In each Liwa there will be a Temporary Management Section, which is comprised of a superintendent who will be assisted by a number of officials and attached to the Manager of the division in which his Liwa is situated. Also, in each Liwa, an Agricultural Board will be formed and headed by the Mutasarrif of the Liwa (Governor of the Province) and Manager of Agrarian Reform,
irrigation engineer, and an official from the Agrarian Reform Department in the Liwa as members. This board will request the cooperation of the Jamiat Al-Fallahin in the Liwas (Union of Peasantry Societies), if needed. The duties of the board include (1) the management of the agricultural workers in the province; (2) the formation of Contract Committees to rent the expropriated and Miri Sirf land to the fallahin of the Liwa; (3) to nominate an agricultural representative to carry out duties to be entrusted to him by the board; (4) to nominate delegates to the Temporary Management; (5) to appoint and dismiss deputies to work for Agrarian Reform; and (6) to form subcommittees at Qadha and Nahiya as the need arises. The Agricultural Board also issues orders for fixing the time for inspecting the farms by the agricultural deputies and delegates and an official of irrigation.

When the final decision of expropriation is issued, the Deputy of Agrarian Reform, accompanied by the Agricultural Representative and an official from the irrigation office, will visit the land to receive it from the Expropriation Committee. These officials will study the location of the land, the type of plantation, means of irrigation, requirements to improve productivity and the condition of the fallahin in the area. This committee will present a report to the Agricultural Board of the Liwa about the conditions of the land and a list of the cultivators of the land. Then the Board, after
being assured of the fitness of the land, will approve the formation of a Contracting Committee which will visit the cultivators of the land. The Contracting Committee will be guided by rules, as follows:

1. First priority is given to the leaseholder who is actually cultivating the land and who meets the eligibility requirements as set out by the Law.

2. If there are no cultivators on the land, it is leased to landless peasants from neighboring areas who fulfill the conditions of the distribution.

3. The lease shall limit the area to the maximum permissible under the Law.

4. All renewals of contracts of leaseholders are considered by the Deputy Member of the Higher Committee of Agrarian Reform.

5. If the leaseholder fails all or any of the requirements of his contract, the Agricultural Board of the Liwa is entitled to abrogate the contract.

The expropriated, uncultivated and Miri-Sirf lands rented to fallahin amounted to 6,352,944 donums during the period ending in 1964. Also the number of contracting cultivators, during the same period, amounted to 200,496. Table 13 shows the achievements of the Temporary Management during the first six years of the Iraqi Agrarian Reform Law. Figures 4 and 5 illustrate the percentages of leaseholders and leaseholds
Table 13. Achievements of the temporary management, area expropriated leased to
Miri lands (State lands)

<table>
<thead>
<tr>
<th>Liwa (province)</th>
<th>Irrigated lands</th>
<th>Non-irrigated lands</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in donums</td>
<td>Number of contractors</td>
<td>Area in donums</td>
</tr>
<tr>
<td>Mosul</td>
<td>9,435</td>
<td>1,260</td>
<td>1,230,917</td>
</tr>
<tr>
<td>Arbil</td>
<td>1,095</td>
<td>85</td>
<td>122,229</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>17,430</td>
<td>627</td>
<td>196,668</td>
</tr>
<tr>
<td>Sulaimaniya</td>
<td>23,794</td>
<td>1,341</td>
<td>12,248</td>
</tr>
<tr>
<td>Northern Division</td>
<td>51,754</td>
<td>3,316</td>
<td>1,592,092</td>
</tr>
<tr>
<td>Baghdad</td>
<td>132,912</td>
<td>6,280</td>
<td>212,418</td>
</tr>
<tr>
<td>Diala</td>
<td>61,523</td>
<td>1,540</td>
<td>194,341</td>
</tr>
<tr>
<td>Hillah</td>
<td>21,064</td>
<td>672</td>
<td>--</td>
</tr>
<tr>
<td>Karbala</td>
<td>2,831</td>
<td>372</td>
<td>--</td>
</tr>
<tr>
<td>Ramadi</td>
<td>124,732</td>
<td>4,500</td>
<td>122,549</td>
</tr>
<tr>
<td>Kut</td>
<td>131,031</td>
<td>3,822</td>
<td>--</td>
</tr>
<tr>
<td>Central Division</td>
<td>174,493</td>
<td>171,186</td>
<td>119,808</td>
</tr>
<tr>
<td>Amara</td>
<td>107,101</td>
<td>22,652</td>
<td>7,960</td>
</tr>
<tr>
<td>Nassiriya</td>
<td>511,816</td>
<td>27,611</td>
<td>276</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>116,236</td>
<td>4,261</td>
<td>109,591</td>
</tr>
<tr>
<td>Basra</td>
<td>11,539</td>
<td>3,202</td>
<td>12</td>
</tr>
<tr>
<td>Southern Division</td>
<td>1,046,992</td>
<td>57,726</td>
<td>118,532</td>
</tr>
<tr>
<td>Total for Republic of Iraq</td>
<td>1,572,839</td>
<td>78,228</td>
<td>2,130,432</td>
</tr>
</tbody>
</table>

aData from (55, pp. 24-28).
### Table: Land Classification

<table>
<thead>
<tr>
<th>Land Classification</th>
<th>Donums</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated miri</td>
<td>1,572,839</td>
<td>24.75</td>
</tr>
<tr>
<td>Non-irrigated miri</td>
<td>2,130,432</td>
<td>33.54</td>
</tr>
<tr>
<td>Irrigated expropriated lands</td>
<td>1,617,447</td>
<td>25.47</td>
</tr>
<tr>
<td>Non-irrigated expropriated lands</td>
<td>1,032,226</td>
<td>16.25</td>
</tr>
<tr>
<td>Total area on lease</td>
<td>6,352,944</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Figure 4.** The percentage rates of lease holds (according to land classification) as of June, 1964
<table>
<thead>
<tr>
<th>Land classification</th>
<th>Number of leaseholders</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated miri</td>
<td>78,228</td>
<td>39.03</td>
</tr>
<tr>
<td>Non-irrigated miri</td>
<td>45,095</td>
<td>22.48</td>
</tr>
<tr>
<td>Irrigated expropriated lands</td>
<td>49,286</td>
<td>24.58</td>
</tr>
<tr>
<td>Non-irrigated expropriated lands</td>
<td>27,887</td>
<td>13.91</td>
</tr>
<tr>
<td>Total leaseholders</td>
<td>200,496</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Figure 5. The percentage rates of leaseholders (according to land classification) as of June, 1964
according to land classification by the end of 1964. It appears that about 39.03 per cent of the leaseholders held irrigated miri-land and only 24.58 per cent held irrigated expropriated lands. The percentage of leaseholders who held expropriated lands (irrigated or non-irrigated) is about 26 per cent. On the other hand 62 per cent of the leaseholders leased miri-lands (state lands). Also, out of an area of 6,352,944 donums on lease, about 58 per cent of it is miri-land (irrigated and non-irrigated) and only 42 per cent is that of irrigated and non-irrigated expropriated lands.

4. The distribution stage

The execution of the Agrarian Reform Law consists initially of the distribution of expropriated land, together with Miri Sirf, to deserving cultivators. The distribution operations involve a series of steps, as follows:

Step 1. Final determination is made of the land subject to distribution. At that time a plan for the commencement of the distribution is forwarded to the Higher Committee of Agrarian Reform for approval.

Step 2. Topographic surveys to distinguish between arable and non-arable lands, are made by the Directorate General of Surveys.

Step 3. At this point committees are formed to select the families who are to receive land. Each committee is comprised of a military officer as chairman, an administrator
from the Ministry of Interior, and an official from the Agrarian Reform. The duties of these committees are to study the conditions of the fallahin families in each area, and make lists of those who are to receive land.

Step 4. Technical reports about the conditions of the land proposed for distribution are to be prepared by special Technical Committees. These committees consist of a technical advisor, an agricultural engineer, and a surveyor. The reports are to include mapping and organizing the irrigation and drainage facilities with recommendations for development. It also includes recommendations for determining the areas required for roads, villages, pastures, drains, canals and public social institutions.

Step 5. When the Higher Committee of Agrarian Reform approves the technical report, the Director General of Survey will map the areas, dividing them into units and assigning them numbers. Survey authorities will also make the units and plot the location of villages.

Step 6. After being checked and published in the Official Gazette, the decisions of distribution are issued. Distribution Committees (on which all concerned parties, including the fallahin, are represented) will issue decisions for distributing the lands and deliver the temporary distribution documents to those selected.

Step 7. At this point the Higher Committee of Agrarian
Reform checks the distribution decisions, and publishes the approved decisions. Finally, the agricultural units are registered, in the names of the new owners to whom they are distributed at the Registry (Tapu) Offices concerned.

To be eligible to receive land, applicants must fulfill requirements as follows:

a. Must be an Iraqi, having reached the age of maturity.
b. Agriculture must be his profession.
c. His present holdings must be less than 60 donums, irrigated by gravity or pump, or less than 120 donums non-irrigated.

Priority, as we mentioned earlier, is given to the present cultivators, whether he is a tenant or a part-owner. Once the land has been distributed the decision is irrevocable.

During the first two years of the Agrarian Reform Law, the Government distributed 5,239 units. During the Third Anniversary celebration of the July 14 Revolution, three thousand additional tracts of land were distributed to fallahin families. In addition about 3,000,000 donums (1,860,000 acres) of land were distributed to 37,000 peasant families throughout the country during the celebrations of the Fourth Anniversary of the enactment of the Agrarian Reform Law. In addition to the land already distributed, the legal and technical formalities required for final distribution were completed by the end of 1962 for more than 1 1/2 million donums
(930,000 acres) of Miri and relinquished land all over Iraq.

Table 14 and Figure 6 present the distribution accomplishments as of the end of 1964. The distribution covered 49 districts, in 313 villages within 13 Provinces. The total area covered by the distribution amounted to 2,022,035 donums distributed among 38,766 fallahin families, of whom 7,835 fallahin families are in the feudalistic Province of Mosul, who received 648,904 donums or an average of 83 donums per fallah. The average size of distributed lots ranged from about 6 donums in the irrigated fields of Basra to 111 donums in the rain-fed zone of Arbil. The overall average size of distributed lots for the country was about 52 donums. This land distribution has benefited 38,766 fallahin families with 193,331 members, hence a good start (55, pp. 29-60).

However, as seen from Figure 7, only 6.92 per cent of the non-irrigated land and 6.48 per cent of the irrigated land of Iraq has been actually distributed. The distribution process, according to the Ministry of Agrarian Reform, has just started since only 2,022,035 donums of the 6,352,944 donums has been actually distributed. The remaining 4,330,809 donums are being prepared to be distributed in units in the near future. Table 15 and Figure 8 indicate the areas ready for distribution. Table 15 suggests that about 801,534 donums have been distributed to 17,119 lots at the average of about 47 donums per lot, that will be assigned to 18,742 fallahin families
Table 14. Summary of information regarding distribution accomplishments ending in 1964*

<table>
<thead>
<tr>
<th>Liwa</th>
<th>Number of districts</th>
<th>Number of villages</th>
<th>Number of distributed lots (No. of fallahin families)</th>
<th>Distributed area in donums</th>
<th>Average size of distributed lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mosul</td>
<td>4</td>
<td>52</td>
<td>7,835</td>
<td>648,904</td>
<td>82.82</td>
</tr>
<tr>
<td>Arbil</td>
<td>4</td>
<td>42</td>
<td>1,843</td>
<td>133,686</td>
<td>72.54</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>4</td>
<td>26</td>
<td>2,034</td>
<td>226,215</td>
<td>111.22</td>
</tr>
<tr>
<td>Sulaimaniya</td>
<td>7</td>
<td>14</td>
<td>1,549</td>
<td>33,747</td>
<td>21.78</td>
</tr>
<tr>
<td>Baghdad</td>
<td>9</td>
<td>33</td>
<td>3,903</td>
<td>165,855</td>
<td>42.49</td>
</tr>
<tr>
<td>Diala</td>
<td>4</td>
<td>15</td>
<td>1,572</td>
<td>82,949</td>
<td>52.77</td>
</tr>
<tr>
<td>Hillah</td>
<td>7</td>
<td>39</td>
<td>5,030</td>
<td>195,313</td>
<td>38.83</td>
</tr>
<tr>
<td>Karbula</td>
<td>2</td>
<td>4</td>
<td>722</td>
<td>11,415</td>
<td>15.81</td>
</tr>
<tr>
<td>Ramadi</td>
<td>1</td>
<td>4</td>
<td>148</td>
<td>6,226</td>
<td>42.06</td>
</tr>
<tr>
<td>Kut</td>
<td>7</td>
<td>67</td>
<td>10,757</td>
<td>445,117</td>
<td>41.38</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>3</td>
<td>14</td>
<td>1,973</td>
<td>57,586</td>
<td>29.19</td>
</tr>
<tr>
<td>Nasirya</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Amara</td>
<td>2</td>
<td>3</td>
<td>700</td>
<td>11,156</td>
<td>15.94</td>
</tr>
<tr>
<td>Basra</td>
<td>2</td>
<td>--</td>
<td>700</td>
<td>3,866</td>
<td>5.50</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>313</td>
<td>38,766</td>
<td>2,022,035</td>
<td>52.16</td>
</tr>
</tbody>
</table>

*Data from (55, pp. 29-60).
Figure 6. The shaded area indicates the impact of the Agrarian Reform Law of 1958 on land redistribution.
Figure 7. The percentage rate of irrigated and non-irrigated distributed lands
Figure 8. Potentially available land for redistribution prior to the end of 1965 is indicated by the shaded area.
Table 15. Lands ready for distribution before the end of 1965\textsuperscript{a}

<table>
<thead>
<tr>
<th>Liwa District</th>
<th>Area ready for distribution (donums)</th>
<th>No. of recipient fallahin</th>
<th>No. of lots to be distributed</th>
<th>Average size of lots to be distributed (donums)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mosul</td>
<td>387,850</td>
<td>7,775</td>
<td>5,531</td>
<td>70.12</td>
</tr>
<tr>
<td>Baghdad</td>
<td>167,401</td>
<td>4,970</td>
<td>4,574</td>
<td>36.60</td>
</tr>
<tr>
<td>Hillah</td>
<td>103,320</td>
<td>2,857</td>
<td>3,453</td>
<td>29.92</td>
</tr>
<tr>
<td>Kut</td>
<td>72,029</td>
<td>2,147</td>
<td>1,796</td>
<td>40.10</td>
</tr>
<tr>
<td>Nasiriya</td>
<td>43,360</td>
<td>600</td>
<td>1,084</td>
<td>40.00</td>
</tr>
<tr>
<td>Amara</td>
<td>27,574</td>
<td>393</td>
<td>681</td>
<td>40.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>801,534</strong></td>
<td><strong>18,742</strong></td>
<td><strong>17,119</strong></td>
<td><strong>46.82</strong></td>
</tr>
</tbody>
</table>

\textsuperscript{a}Data from (55, pp. 29-60).

before the end of this year.

Formation of cooperative societies

Agricultural cooperative societies were formed, in accordance with Chapter II (Articles 31-34) of the Law, to secure the benefits of large scale operations and production by grouping the small holdings into large units for cultivation purposes. To these groups of units, improved technical agricultural methods and machinery were introduced to reduce the cost of production as well as improve it. Crop rotation was applied to prevent the exhaustion of the soil. Cash
loans and cultivation necessities such as fertilizer, seeds, and machinery, were supplied to protect the new owners from money lenders. Major crops were sold collectively so as to secure a higher price than could be obtained by the individual fallah. (This topic will be discussed further in Chapter VI as a means of supporting an agrarian reform program.)
CHAPTER V. ANALYSIS OF THE LAW'S OBJECTIVES

The objectives of the Law stated in Chapter IV can, for analytical purposes, be restated in terms of economic objectives, objectives of distributive equality and political objectives.

On the basis of the context of the Law and Mr. Himoud's statements, there does not appear to exist any priority of objectives. It may be generalized that an equal weight has been assigned to them.

Economic Objectives

In the economic objectives are included the goals of the Law pertaining to increase in production and elimination of agricultural unemployment. Hence the Law appears to be concerned with the enhancement of productive efficiency and growth. That is to say that the Agrarian Reform Law is very much concerned with the transformation of the tenure system so as to obtain greater efficiency as well as equality and justice. The basic objective of the enactment of the Law was to create conditions in which living standards are reasonably high and all citizens of Iraq have full and equal opportunity for growth and service. The development plan of the country hinges upon the fulfillment of the objectives of the Law. Thus, it seems, though not stated, that the priority in planning is to increase agricultural production. Then, the agri-
cultural economy will be diversified and brought to a much higher standard of efficiency.

From Chapter II it can be seen that the levels of efficiency prior to the enactment of the Law are regarded as unsatisfactory. The Law is designed to be a measure for the improvement of production and agricultural efficiency; however, the levels of production or the criteria of efficiency are not specified in the objectives of the Law. Thus, there seems to be no circumscribed limit to expectations of the Law as far as production is concerned. Similarly, no rate of growth or criterion of economic development is specified, although from the citation from Mr. Himoud, per capita real income may be inferred for use for such a purpose.

According to Gene Wunderlich (136, p. 87), the economic objectives of a land reform law may, for the purpose of analysis, be subdivided into the general areas of (1) economic efficiency and (2) economic growth. A close relationship between the two exists. The Agrarian Reform Law of 1958 will be tested in terms of its ability to satisfy the criteria for efficiency and the criteria for growth.

According to Wunderlich, efficiency in production may be viewed from the standpoint of agriculture as one segment of the total economy. For the agricultural sector to be efficient, it must produce such goods and services that the people demand and in the proportion desired, and each of these goods and services must be produced at minimum cost.

In order for these necessary conditions of efficiency
in production to be fulfilled, the usual production equilibrium condition is taken that the marginal rates of transformation between any two products (actual or potential), the marginal rate of substitution between any two factors, and the marginal rate of transformation of any factor into a product must be the same for all firms producing the product or using the factors. (136, p. 87)

Speaking of economic growth, Wunderlich asserts that economic development is involved in both the efficiency in allocation of resources at any particular time and with economic growth of expansion. Wunderlich stated that:

The departure from a static system implies at least two additional variables, namely, capital accumulation and innovation. As time becomes involved there are necessarily the problems of expectations and uncertainty. New techniques also demand changes in the allocation of resources to permit efficiency. (136, p. 88)

The allocation of resources furnishes some of the bases for economic growth. In other words, through the maximization of the total product the possibility arises for a surplus for capital formation. Also, it is in the realm of allocative decisions to permit research, which produces changes in technology.

Likewise, as the ratio of the various supplies in resources change, new allocations of resources are necessary. "New techniques require allocation of resources." When the concept of economic growth is introduced the interdependence of the allocation of resources, capital formation and technology becomes apparent. However, the objectives of the Law do not specify a rate of capital formation. Thus, the Law is given a positive effect with regard to capital formation since it appears that it satisfies conditions which induce a rate
greater than would be the case without the Law. The effect of the Law on the adaption of new technology is analyzed in Chapter VI, and it appears that the Law has a positive effect on technology since there is evidence for adoption and development of new techniques.

In this context an interpretation is given to economic development, attainment of which is illustrated by progressive upward shifts of the transformation curve. Apparently it is not easy to separate between changes in the transformation function of a part of an economic unit caused by reallocation of resources within the unit, and those generated by capital formation and innovation (23).

Figure 9 illustrates the case. $P_1P_1$ is the transformation curve prevailing in a reform Liwa before the Law's application. $P_2P_2$ illustrates the level achieved by the transformation curve after the reform, that is to say, the change in the production possibilities caused by resource allocation and introduction of new resources. $P_3P_3$ indicates the possibility of increases in the production possibilities through spontaneous evolution, that is not due to governmental intervention, of the agricultural structure originated by reformative action of the Law (23).

Apparently a change in the shape of the transformation curve can also accompany its upward shift (23). This is illustrated by Section A of Figure 10 which shows the original shape of the transformation curve. It refers to a reform Liwa and considers the alternative production possibilities between
Figure 9. Reform-caused shifts in the production possibility curve
Figure 10. Different changes of the production possibility curve
agricultural and other commodities and services. This presents a case in which the production possibility curves are relatively favorable for increasing the production of farm commodities. Reallocation and improved productivity of resources gives the region a new and improved productivity $P_1 P_1$. The triangle ABC represents the range of choices open to the people of the region in going from $P P$ to $P_1 P_1$ without going below the former level of production of either agricultural commodities or non-agricultural commodities. The curves suggest that the possibilities of increasing non-agricultural commodities are rather meager. Section B of Figure 10 illustrates the situation in which a change in the curves shape accompanies its shift, opening greater production possibilities of non-agricultural commodities. This may be regarded as a positive movement toward balanced growth (23).

In terms of the above analysis, the Agrarian Reform Law of 1958 is the necessary mean to remove obstacles present in the original case. But, although the economic goals are undoubtedly a necessary part of the reform and one of the main reasons for its enactment, levels of production, rate of growth or criteria of efficiency are not, as indicated earlier, specified by the Law.

Necessary conditions for economic efficiency

The Agrarian Reform Law of 1958 does not define any specific measure or condition as an indicator of attained efficiency. However, "increase in production" or "raise the standard of living" by "elimination of unemployment" are the
economic objectives usually emphasized in the official reports concerned with accomplishments of the Law. Also, the reports make it clear that the governmental action is exclusively concerned with production and resource efficiency in the agricultural Liwas. In addition, the Law does not regard in these Liwas the consumption and marketing aspects, limiting its action to a resource redistribution and reorganization in production. However, as is the case in Italy's law according to De Benedictis,

Simple increases of total production or decrease in the level of unemployment, even indicating that some positive movements toward the economic objective have taken place, do not ensure that the available resources have been allocated, within the limits consistent with the other objectives in a way that will guarantee product maximization. (23, p. 110)

It appears that one of the responsibilities of the Law is to encourage the reduction of lease-based obstacles (Chapter III of the Law in Appendix B) to farming efficiency. However, according to Wunderlich,

Just as it is possible for parties to a lease, each seeking to maximize his own benefit, to attempt to secure a resource combination that does not maximize the return to the firm, so the firm may specify an equilibrium that is inconsistent with the standard of efficiency for the economy. (136, p. 115)

For instance, inefficiency may exist if one farm equates the marginal rate of substitution between two of the factors of production that it employs to a ratio of prices of the factors different from another farm. Such a situation may exist if one of the farms were able to influence the price of one of the employed factors. This farm may achieve an efficient
allocation of its resources by equating the marginal value product of each factor to the price of the factor (136, p. 116). Although the Agrarian Reform Law in Iraq may attempt to reduce the obstacles to the achievement of efficiency in the farm firm, the responsibilities of the Law spread to the whole economy so a more extensive standard is required.

The problem of resource allocation and efficiency can be investigated at different levels. The first level may include a consideration of resources existing in a reform region, abstracting from external relationship and attempting to maximize their productivity. The second level consists of the comparison of productivity of resources among the agricultural Liwas. The third level of the economy as a whole is considered in examining the resource productivity and planning their reallocation. Logically, as stated by De Benedictis:

At different levels correspond different resource allocations, and consequently different production possibility curves. In the case of a reform zone, for instance, the ex ante transformation curve will change in height and shape as a consequence of the reform, but further changes could occur if in planning the allocation of factors of production attention is devoted to the level of resource productivity in other agricultural areas or other economic sectors. (23, p. 111)

The Agrarian Reform Law, however, considers the reorganization of resources in the reform Liwas. These Liwas become the economic unit for which the production planning must be executed. Professor J. L. Mosak's conditions for intertemporal entrepreneurial planning can be adapted to plan produc-
tion and allocate inputs in reform Liwas. Professor Mosak stated conditions for the intertemporal equilibrium as follows:

1. The marginal rate of substitution between two planned productions for two dates must equal the ratio of their discounted expected prices.

2. The marginal rate of substitution between two planned inputs of two dates must equal the ratio of their discounted expected prices.

3. The marginal rate of transformation of a planned input of any date into a planned production of any date must equal the ratio of their discounted prices (82, p. 138).

The implication of this is that the Agency of Agrarian Reform charged with the reform application may be regarded as an entrepreneur with a given amount of resources, with special reference to expropriated lands, labor or the recipient fallahin and the capital available for investment, and certain output possibilities, that are in a specified transformation function. This Agency has a set of output and input price expectations, that are at a higher level of certainty than for the individual fallah because of the greater possibility of the Agency to evaluate prices movement as a result of changes in production. The economic goal of this Agency is to select that stream of current and planned inputs and outputs that will have the maximum present value. "The present value, and
the present value of the whole stream of surpluses is the capital value of the plan." (23, p. 114) Therefore, the economic goal of the Agency is to maximize the capital value of the plan subject to the transformation function. According to Professor Mosak, given the expectation of the Agency as to future prices and discount rates, the current equilibrium and planned inputs and outputs are achieved by setting the partial derivatives with respect to products and factors, that can be treated as negative products, equal to zero (82, p. 139). This provides us with the set of conditions stated above.

But, since other objectives that are partially competitive exist, then the fulfillment of these conditions may not be expected. Yet, these conditions may be utilized as indicators of attained maximum efficiency in resource combinations and resulted products (given the restriction of particular transformation function and a particular set of price expectations). Apparently, planning of production may be "subdivided within the reform area into homogeneous zones." And, according to De Benedictis, "the conditions for evaluating a product maximization obviously do not change." Specific cases or necessities drawn up by the other goals of the Law could possibly establish conditions of profit maximization in special parts of the reform Liwás and depart from them in other parts. In fact, as asserted by De Benedictis, the existence of other goals may be regarded as "further restric-
tions in the process of profit maximization" (23, p. 115).

Such criteria for equilibrium, as asserted by Professor Mosak, do not change even if the analysis for resource allocation were to consider broader areas or entire economic sectors. However, changes in the transformation function, because of the reallocation of resources would take place.

In respect to the overall economic development of Iraq, the analysis cannot be restricted to the reform Liwas, since the problem of resource allocation within the various sectors of the Iraqi economy is necessarily included. In this context, comparison of value marginal productivities of resources in their various uses would establish a criterion to evaluate the efficiency of resource allocation as a basis for further development. In other words, the attainment of an equilibrium alone does not satisfy the requirements for economic development. Thus, as efficiency conditions are met through equilibrium, the objective of "raising the standard of living", increased per capita income, requires additional conditions for economic growth be met. Two necessary conditions for growth that seem to be affected by the Agrarian Reform Law are capital formation and the introduction of innovation and new technology.

The Economic Planning Board of The Republic of Iraq has emphasized the need of increased efficiency and advanced techniques and indicated that the key to higher production
and increased levels of income and employment depends upon the increase in capital formation (59). The Agrarian Reform Law pointed out the need for more capital by suggesting the effects of capital limitations in production (Chapters I and II of the Law in Appendix B). This is illustrated by the inadequate financial resources and absence of credit facilities at reasonable rates. As discussed in Chapter II, many of the fallahin, even though willing, are unable to use improved technology, seeds, fertilizer or the like. Works of irrigation pumps, canals, or wells owned by the fallahin are misused or are not fully utilized for need of capital. Besides, there exists the difficulty of acquiring capital under conditions of low income in Iraq as mentioned in Chapter II. Therefore, the problem arises to which Nurkse (85), Aziz (7), Meier and Baldwin (79), and Higgins (47) referred to as the "vicious circle" of poverty and capital dissipation— they are poor because they have little capital because they are poor. The remedy for breaking this vicious circle is based on the assumption made by Nurkse, that the marginal productivity of labor in agriculture is zero for a considerable portion of the labor force. Nurkse proposed that the unproductive segment of labor be taken to produce capital goods and that the segment of agricultural product they had consumed be transferred to maintain them. Therefore, the remaining peasants would be no worse off, agricultural production would be
maintained and new capital goods would be produced with the surplus labor (85, pp. 38-49).

By increased efficiencies such as these, expected as consequences of the Law's enactment, a greater product might be produced from which capital formation could be made. Another measure for raising capital internally is through the reduction in consumption. Some mallakeen and fallahin might be encouraged to devote more of their income to capital and less to consumption if uncertainty were reduced and full rewards to their capital investments were assured.

In addition, economic development is dependent upon invention and the adoption of the inventions. Thus, another path for promotion of economic growth is that the Agrarian Reform Law provide an environment for the adoption of innovations. This is the concern of Chapter II of the Law, where the removal of obstacles to the acceptance of innovations by mallakeen and fallahin are considered, as will be discussed in Chapter VI.

In the preceding few pages, the conditions for optimum resource allocation within the reform Liwas and the marginal productivity criterion for evaluating efficiency of allocation of resources were stated. However, due to lack of adequate data, the application of the above criteria, to appraise the effect of the Agrarian Reform Law on the resources productivities within the reform Liwas and in comparison with other
economic areas, is not attempted. But, even if tests on the basis of empirical data could be executed, these, because of the early stages of the Law's application, would not supply a definite and complete measurement of the reform's results. This will be our future action.

Distributive Equitability Objective

Another category of statements, which form the objectives of the Agrarian Reform Law, are made by Mr. Himoud, the then Minister of Agriculture, Dr. Abdul Sahib Alwan (5), the present Minister of Agrarian Reform and the Law itself, is concerned with equitability in the distribution of income. It has been stated by Himoud that the Law is intended to promote a more equal distribution of wealth and equal relations (48). The Law has considered the social aspects no less important than economic and, therefore, a land policy, considered by the Law as adequate only if the measures in which reduces disparities in income and wealth, eliminated exploitation and provide security for the fallahin and farm workers. Thus the Law is considered as policy that will "destroy feudalism—and to destroy the political influence which the feudal lords enjoy as a result of their ownership of vast areas of lands." This is to say that the Law aims at "realizing social justice, combating ugly exploitation" (48), and promoting good citizenship. Thus, the Agrarian Reform Law advo-
icates that the attainment of economic equality and social justice must proceed side by side with economic progress, between the mallakeen (upper income) and fallahin (lower income) ranges of classes and fixed incomes, and the gap needs to be narrowed in terms of the level of living.

When consideration is taken of the wide disparity between high and low incomes prevailing in reform Liwas, it should be expected that a reformative action involves measures to equalize income distribution.

Economists have always assumed that the introduction of agrarian reform in a country will result in higher income and better living standards for the small peasants and in improved income distribution among the agricultural and non-agricultural sectors of the economy. Possibly a distinction should be made between the incomes of the mallakeen and those of the new owner-cultivators (fallahin) and the effects of the agrarian reform on these incomes in the early phase of the effectiveness of agrarian reform measures and in the later phase when these measures have had their full influence. Another distinction that is also necessary is between the income effect of agrarian reform as a basically land redistribution program and those of the complex of land redistribution and other complementary policies and programs that together will bring about the desired results of agrarian reform in relation to economic development (21).
Professor Dallisay divides the effects of land reform measures on agricultural income in two distinct phases: (1) the short-run effects which in underdeveloped countries may take 15 to 20 years or longer and (2) the long run effects during which time various measures for agrarian reform have been tried and have encompassed, at least spatially, a large segment of the cultivators in the country. It will be in either case that besides land redistribution other accompanying measures such as credit, cooperatives, marketing and the like, are used to bring about genuine agrarian reform (21).

According to Professor Dallisay, immediately after the introduction of land distribution, tenure improvement and other supplementary measures of agrarian reform, the income in agriculture may decline for any of the following causes, acting individually or in combination:

(1) Lack of adequate organization among the new owners-cultivators which may make the agrarian reform policies more effective and widespread and the adequacy of public measures to deal with the problem or assist the peasants in various ways. Complete or partial disorganization of the agrarian structure is part of this aspect.

(2) Decline of the rate of agricultural investment arising from reduction in rental rates and land taxes as required by some agrarian reform programs.

(3) Too big a gap in family consumption levels before and
after the immediate introduction of agrarian reform and/or the pressure of scarcity prices of essential consumer goods that serve to nullify any increase in farm production brought about by agrarian reform (21).

Perhaps the most important short-run effect of agrarian reforms is on agricultural investment. It is felt that capital investment in agriculture will decline sharply as a result of agrarian reforms for two reasons listed by Professor Dalisay, namely:

(1) The expropriated owners will no longer make any investment in agriculture, and the reduced income of the landlords arising from low compensation or reduced rents may also cause lower rates of investment outside agriculture. Unless the agrarian reform programs are accompanied by special credit measures, including provisions for production credit and other credit assistance to the peasants, the low rate of investment in agriculture will persist for a long time. And if the new owner-cultivators remain without any excess income above their consumption requirements, especially when the operating units are of an uneconomic size, the rate of capital investment after the introduction of agrarian reform will continue to be very low. All of these, according to Dalisay, will result in low income for the agricultural population, and (2) the new owner-cultivators will not have for some time the means or ability to compensate for the loss of the investment
formerly made by the landlords or previous owners.

According to Dr. Dalisay, the decline in agricultural production resulting from the agrarian reform measures may come about from the decline in agricultural investment, owing to the shift of investment from the former owners to the new owners, or from the lack of proper incentives for the farmers to increase their production and consumption. In the latter case, with smaller rents and taxes, the farmers can afford to produce less and still keep their old consumption pattern. Farm production will increase only when the farmers can command the essential consumption goods and their increased production will enable them to buy for the satisfaction of themselves and their families; otherwise they have no incentive to produce more than their needs for home use. This is especially true in areas still far removed from commercialized production. Professor Dalisay illustrates:

It is generally recognized that in most areas of Asia as well as in other countries, the tenant farmers and their families live at or below subsistence level. In case studies in the Philippines and elsewhere, the average tenant does not receive sufficient income from his farming operations to feed his family. In cases where the tenant farmers pay from 50 to 70 per cent of their crops in rentals and interest, the remainder of the income from farming is insufficient to provide the minimum essentials of living. In these cases, any increased farm production after land reform will be used up by the tenant-farmers or new owners in increasing their consumption or raising their consumption levels from their former low position. This is especially true in the short-run when by eating more of the farm produce and thus reducing the deliveries to the regular trade channels, the new owners or
farmers force prices up for the non-farm population and also bid up the prices of non-agricultural products. These, of course, eventually result in the lower real income of the agricultural population, which may also cause lower rates of investment in the non-farm sectors of the economy. (21, p. 101)

It seems that for the agrarian reforms to be beneficial, both from the standpoint of increasing the farm production of the people affected and of improving their real income position, provision must be made, together with the institution of agrarian reforms, for credit assistance to the new owner-cultivators, not only as a means of facilitating capital formation, but also as an incentive for increased production for the market. So the excess income above consumption requirements could go into capital accumulation, it seems essential that the government will have to supplement the rate of agricultural investment, actual or potential, by grants, direct land improvement projects or production and facility loans to the peasants. In the case of credit, it has been mentioned that even if substantial subsidies would be required for an adequate program, such subsidies could represent a profitable public investment in agricultural development and the improvement of the agrarian structure, as will be seen from the study of agricultural credit supporting effects for the Law in Iraq (Chapter VI).

The wide gap between objectives of agrarian reform and actual performance in many countries is a short-run phenomenon
which stems directly from the adequacy of the agrarian reform machinery and the extent to which the new owners and improved tenant groups have the strength and the proper organization to exercise their new-found rights. Professor Dalisay asserts that two aspects require true and selfless effort to develop. In the short-run period, the difficulties presented by the need for adequate organization and the demands for an efficient administrative machinery are sufficient to slow down the agrarian reform activities to a discouragingly slow pace and to prevent the effectuation of improved income distribution (21).

In the long run, during which the different measures of agrarian reform have had time to work their effects and the supplementary measures and economic organizations have been developed, agrarian reform will result in increased production and income for agriculture. This situation will be brought about by three main factors listed by Dalisay, namely:

1. Increased economic efficiency of the individual farm units, resulting in higher production for consumption for the average individual farm family and possibly in a small excess income for investment.

2. Improved social organization in the rural communities arising from improvement in farm organization among the peasants themselves which in turn affect favorably credit, marketing, and other services for agriculture.

3. Improved public administration in agriculture, including improved techniques in agricultural education and extension, research and working relations with farm groups. (21, p. 102)
The increased agricultural income arising from the operation of these factors will have to be qualified by two sets of conditions which prevail among the lesser developed countries as suggested by Dalisay, namely: population pressure in the countries that have practically reached the limits of cultivation, and the ability and willingness of the people, especially in areas with abundant land resources, to carry out more than institutional reforms to bring about a better relocation of resources, and even in the presence of limited savings and persistent conservatism, pursue general economic development.

Iraq may not be considered as an overpopulated country, though its population has been increasing at a rate of 2.3 percent per year. However, in the overpopulated and underdeveloped countries of the Middle East, an increase in agricultural income may come from measures for the improvement of agricultural technology to raise farm productivity and favor further diversification or intensification of agricultural production. This appears to be the case in Egypt, and other agriculturally overpopulated countries in which institutional agrarian reforms have been introduced. But even these measures have definite restrictions, for overpopulation in the countries which have no more uncultivated lands for distribution means that the amount of land available for distribution is generally too small to provide farms of economic size and oppor-
tunities of employment in agriculture for the whole farm popu-
lation. Furthermore, the efforts to correct the defects of
the agrarian structure in these countries (high rents, high
interest rates, uneconomic holdings, much fragmentation,
etc.) are almost always nullified by the shortage of capital
and land in relation to labor which continually exerts eco-
nomic pressure against the enforcement of legislation seeking
to remedy these defects (21).

This discussion suggests that the increase in agricul-
tural income in the agriculturally pressured countries over
the long run would lie in measures outside agriculture. The
question appears pertinent as to the necessity for a better
reallocation of resources between agriculture and industry
and the other sectors of the economy if agriculture would se-
cure a higher absolute increase in income or higher produc-
tivity per worker. We may also raise the question whether
over the long run there are other alternatives besides indus-
trialization for these highly populated countries of Asia.

In regard to the situation of other countries, such as
Iraq, where land resources are abundant relative to popula-
tion, but where, not unlike the overpopulated countries, sav-
ings are limited and therefore capital in agriculture is
scarce, comprehensive agrarian reform measures may not be
fully justified, but definite agrarian reform policies seem
necessary in order to correct the same defects in the agrarian
structure found in other countries which hinder agricultural expansion and economic development. It has been pointed out by Dalisay that under these conditions fundamental agrarian reform in the sense of land redistribution is not necessary, and that extension of the cultivated area and control of land use are enough for increasing agricultural production and promoting general development. But this is not so in Iraq where there is practically no shortage of land. The country with its antiquated land tenure system and the weaknesses of the agrarian structure with its economic maladjustments and social inequalities prevent expansion in agricultural production and by setting obstacles to full use of natural and human resources hinder general economic development.

In lesser developed countries with abundant land resources, increased agricultural production from agrarian reform measures is not enough over the long run. Professor Dalisay explained that:

Continual increase in agricultural production with higher economic efficiency per worker soon reaches a point when further production means lower prices and lower incomes for the farmers. The further investment of individual savings in agriculture would aggravate the problem. After all, the basic food and agricultural requirements of the total population are definitely limited, and over the long run the excess farm production and excess labour on the farms will need outlets outside of agriculture if these are not to depress permanently agricultural income. Again, as in the agriculturally over-populated and under-developed areas, the solutions lie outside agriculture.
It should be pointed out in this connection that basic land reforms in both the over-populated countries and those with abundant land resources, have to be accompanied by other institutional reforms and institutional organization outside the sphere of agriculture if these land reform measures are to be effective in increasing the income for agriculture and thus bringing about better income distribution. One aspect is the mobilization of rural community savings and the organization of the necessary financial machinery that would channel these savings into productive outlets in agriculture and industry. The other aspect is the improvement in the quality of the human factor without which the economic and social organization essential to economic development cannot be realized. (21, p. 104)

This discussion inevitably leads to the conclusion that agrarian reform in the lesser-developed countries such as Iraq, to be really effective must depend upon an integrated economic development program which will ensure a more or less balanced economic growth in the individual countries.

The Agrarian Reform Law of Iraq can be considered as satisfying the condition of income redistribution since its provisions and objectives tend to shift the level of opportunity and the distribution of income toward equality. The Law exercises a twofold influence toward the equity objective. In the first place, the expropriation of the large estates from the mallakeen and their allocation to the landless fallahin will reduce the dispersion of land distributions in the country. In the second place, the policy of land transformation and investment, increasing the productivity of the land, will as a result increase the income of the fallahin
families already advantaged by the perception of land income.

However, there is some doubt on the efficiency of the provisions as they are stated. The expropriation of the land and its reallocation may create a condition of disequilibrium with respect to the original situation. It should be expected that all the fallahin presently employed even at a very low degree, on the expropriated land, will be employed in the new ownership system (distribution stage). It should be expected that in some Liwas, where the population pressure is higher and, because of the complementarity with the economic goals, the size of the new farm units cannot be unlimitedly decreased, a number of fallahin will stay unemployed and turn to the already overcrowded non-expropriated lands. This, of course, has a negative effect against the achievement of the equity goal.

Political Objectives

The Agrarian Reform Law was proclaimed in the atmosphere of political instability that characterized the country following the army revolution in July 1958. One of the chief purposes of the parties that sponsored and approved the Agrarian Reform Law was to strengthen the democratic forces in the depressed Liwas of the country.

The Law had a strong support among the fallahin and a relatively mild resistance among the mallakeen who may have
felt that greater losses could be suffered in case of pre-
dominance of the Communist group of the country. It is evi-
dent, from Mr. Himoud's statement that the Agrarian Reform
Law was established "with the purpose of securing for the
state machinery the possibility of traveling a sound road,
in accordance with public interest" (48).

The criterion for investigating achievement of the
political objectives is the political strength of the demo-
cratic forces. However, a test is not easily performed since
the position of the voters, even in the land reform Liwas,
will be determined by the general governmental policy and not
only by the reformative action. If there were elections, it
would have been possible to test the Law by comparison of suc-
cessive elections' results, but since there have not been any
elections held in Iraq, there is no way to test whether the
political objectives are satisfied.

Now we may ask the question what are the results of these
objectives? It is yet too early to make any precise state-
ments in this regard. However, from the investigation of the
economic and social structure of Iraq, we now must come to the
conclusion that what the Iraqi government has done and is
doing to increase agricultural production is justified. For
a country like Iraq whose economic structure (the existing
relationship between men, resources, and techniques) presents
a marked imbalance, whose institutions are still much imbedded
in medieval thinking, and whose population has been mostly devoted to agricultural pursuits, the creation of a good agricultural base is almost a must for future sustained economic growth.

The agrarian reform program in Iraq is important from the point of view of the labor market since it represents a great work of social reclamation. Transformation works have made possible an increase in employment, not so much because of the increase in the number of fallahin as for the increase in the number of days worked by the existing fallahin. These benefits of a more intensive economic life which is being brought about by increases in employment and production have and will continue to have great repercussions in the development of the reform Liwas.

With respect to the Iraqi economy as a whole, the agrarian reform program has given work to thousands of unemployed laborers. It has increased the demand for buildings, furnishings, materials, irrigation projects, roads, bridges, dams, agricultural tools and the like, thus increasing employment all over the country. It has also shown the people of Iraq that it is possible to attain democratically what the old regime failed to achieve and this has strengthened a young democracy.

The agrarian reform program in Iraq illustrates a great social experiment. Masses of fallahin that till now have been living at the very edge of civilization, that possessed but
the very rudimental art of cultivating the land, whose expe-
riences have been restricted to the planting of barley and
rice, and the grazing of sheep and draft animals, who for the
most part could not read or write, whose traditional teachings
made it very difficult for them to accept new methods, were
removed from their environment, were taught a new way of
life, new methods of doing things, were given land and a home,
and were set free to find a new purpose in life. The effects
of the Law are only in their early stages but there is a great
feeling of vitality in the reform Liwas.

The Family Farm as the Ideal of the
Agrarian Reform Law of 1958

When the objectives of the Agrarian Reform Law, stated in
Chapter IV and analyzed above, are lumped together according
to the suggestion made by Dr. Abdul Sahib Alwan, the present
Minister of Agrarian Reform, these objectives may be attained
by the establishment of a family farm (owner-cultivator)
system (4 and 5). The Law itself states that the plan of dis-
tribution is based on the assumption that the land belongs to
its tillers, and thus it advocates the owner-cultivatorship
(family farm) system. Mr. Himoud, Minister of Agriculture,
has stated that the Law promotes the family farm system and
that "distribution will be such as to give peasants full
ownership, thus giving them an opportunity to form an attach-
ment for their land" (48). The Law has also stated that,
The land shall be handed over to smallholders free of debts and tenant's rights and shall be registered in their names as purely owned land, without any change. The person to whom the land is given shall cultivate it and give it the necessary care and attention. (52, Article 26)

This section is devoted to the study of two major types of land tenure and use: (1) tenancy (or mallak-fallah system) that existed before the enactment of the Law, and (2) family farm (or owner-cultivatorship) that was promoted by the Law. Usually, these two types of tenure are found side by side. However, in some countries tenancy may be the rule, as was the case in Iraq prior to the establishment of the Law, while in others it is the exception, as is the case in Iraq at the present. This section will present the superiority of the family farm system, and arguments for and against the system as it exists now in advanced nations, and what is expected of it in Iraq.

However, before going into the discussion of the superiority of family farm (owner-cultivatorship) form of agricultural organization as compared to tenancy, it may be instructive to give meaning to what is meant by these two forms that may serve as a concept that is both useful as an analytical tool and purposeful as a socioeconomic institution in agriculture.

Ackerman and Harris in their definition of family farm (owner-cultivator) stated in Chapter I assert that the labor
resources of a family farm are deemed to be employed efficiently when the rewards for their efforts are equal to rewards for comparable human efforts in other occupations. Rewards in this sense are in real terms in comparison to monetary rewards and include the value that members of the farm family place on leisure, working close to nature, "independence" and other non-monetary values ascribed by them to farming. Acker-man and Harris' definition of a family farm excludes practically all croppers and certain tenants and some farms operating under contract agreements that impair the essentials of entrepreneurship of the farm family. Cropper families and some tenants work essentially as farm laborers. Plantations and other types of farm organizations dependent upon hired labor or "croppers" are not family farms as this term was defined earlier. Part-time and rural-resident farm homes which have become numerous in the United States may also be excluded (1, p. 389).

The Iraqi Agrarian Reform Law promoted such a definition. The Law suggests that owner-cultivatorship (family farm), or the equivalent owner-operatorship signifies that the owner of the land is also the "entrepreneur", and that the owner and his family provide most of the labor needed on the farm. This form of organization combines the maximum number of economic functions in the activities of the farm family (Chapter I of the Law). Professor Parsons supports this idea; he explains
that,

The institution of ownership serves the purpose of creating a secure zone of discretionary action for the cultivator; marginal activities convert the discretionary possibilities into the realized performance of production and acquired income. Since the actual activity is the farm family, we now must think of the farm as a family unit rather than merely of the farmer as a cultivating proprietor. (88, p. 5)

Accordingly, owner-cultivatorship as promoted by the Agrarian Reform Law in Iraq, refers to the fact that a farm family combines within its economic activities the management of the farm, most of the manual labor on the farm, the supplying of the work stock and equipment, and the ownership of land which is cultivated.

Tenancy on the other hand refers to the form of agricultural tenure in which the actual cultivator has no rights, in the land which he works and upon which he lives (1, p. 387). The two functions of ownership and operatorship are separated. Ownership, in this case, may be in the hands of private individuals, a group of individuals, a corporation or the State. The main concern here is with the relationships and consequences that arise from allocating the rights and responsibilities of farm operatorship between private landholders and their tenants.

Professor Parsons asserts that tenancies differ from owner-cultivatorship in regard to the "division of responsibility for investment", with the landowner assuming the in-
vestment function for land, and the tenant carrying the main investment responsibility for tools and equipment, and in some cases livestock. "To a lesser degree and only in some western countries, the tenant may be responsible for investment in buildings and land improvements" (88).

The process of allocating the rights to land involves the transfer by the owner to the tenant of certain rights of possession and use for a given period of time. Such a transfer may be accompanied by oral or written agreement stipulating the conditions under which the property may be used.

While the allocation of duties and responsibilities of each party includes the supplying and contributions of labor, capital and management as well as other factor costs and the sharing of income, it is to be noted that tenancy covers heterogenous forms. There are share-cropping arrangements; cash-renting arrangements; a mixture of both, share and cash. In Iraq the widely practiced form prior to the enactment of the Law was that of the sharecropping arrangement. Under this arrangement the Mallak (landowner) supplied the right of using the land, and might also have supplied seeds and some tools and equipment and customarily provided some credit and financial assistance. Management of the enterprise was provided by the landlord or, as was often the case, by his local agents (sirkals). The fallah (sharecropper) furnished the labor and usually the seeds and draft animals and received somewhere
between one quarter to one half the produce or more, depending principally upon whether the land was irrigated by flow, by pump, or by rainfall.

From the earlier explanation of the concept of the family farm which requires that a farm in order to be classified as a family farm must satisfy the conditions of ownership, entrepreneurship and management and size of farm, we find all these relations presented in the Iraqi Agrarian Reform Law. It is, however, some years before the family farm in Iraq will be advanced enough so that it may direct its destiny. The government is assuming the responsibility of the guardian towards the new owners, until the time that they can stand on their feet.

The Superiority of Family Farms

In discussing the merits and demerits of the family farm (owner-cultivator), and tenancy forms of agricultural organization as to establish the superiority of the family farm, we will view the problem from the economic, social, and political standpoints.

The economic setting

From a purely economic standpoint, emphasis is laid upon maximization of production at least cost. This can largely be achieved by bringing into the operating unit (the farm)
certain proportionate amounts of the different productive elements that provide a maximum output with least cost. To achieve this, all factors of production must be united in the most efficient way; that is, in the right proportion. Deficiencies in one factor such as capital or management in relation to the other such as land and labor will not result in maximum output. Therefore, the first aspect to be reviewed here is the way in which resources on farms are combined under the two systems of owner-cultivator as compared to large estates operated by tenants.

It has already been mentioned that tenancy is characterized by separation of ownership and operation. This is another basic problem in any lesser developed nation in which tenancy is the main form of tenure.

Dualism of control between durable and nondurable forms of capital application limits opportunities for investment in the farm enterprise. In much of world agriculture, with divided economic control over resources, the efficiency of agriculture is impaired. (5, p. 428)

However, in some Western countries, especially England, such division of control appears not to have had adverse effect on agricultural efficiency.

For many years England has had progressive landlords and enlightened land tenure laws which safeguard both the tenant and the landlord in planning the operations of farms and combining their resources in the most efficient form; using more capital when it is required, more efficient management, and more specialized labor. (5, p. 428)
Many economists basing their arguments on projections of conditions in advanced Western nations have come out with the generalization that large estates operated by tenants are more efficient than small farms operated by owners. Clearly, this argument is based upon the economic benefits to be derived from large-scale operation (5, p. 429). C. S. Orwin as quoted by Thomas (114, p. 4) has maintained that "in every branch of human enterprise maximum production at low cost is synonymous with large-scale organization." However, there is no conclusive evidence for such an argument. The superiority of large-system in agriculture is not as closely established as in other industries. In agriculture there is little scope for division of labor; this in turn suggests that there are difficulties in the separation of functions for management and labor. In addition technological developments in agriculture have been in the direction of making it possible for small and medium sized farms to compete effectively with larger units. Therefore the risk of serious diseconomies in the scale of farming has been minimized (5, p. 430).

However, in Iraq the argument for large estate tenant farms cannot be based on the ground of the superiority of large-scale operation. In the country large estates, prior to the enactment of the Agrarian Reform Law in 1958, were not large producing units. They were large only in terms of ownership and not in terms of operation, since they were cul-
tivated in small plots by fallahin on the basis of cash-renting or sharecropping. Each cultivated a small tract of land with primitive methods of cultivation. Therefore there is no reason to fear that the division of these large estates through a program of redistribution might have adverse effects on agricultural production, for the scale of operation was small in any case (5, p. 430).

The productive superiority of owner-cultivated farms over large estates cultivated by tenants is evident. Some German studies have proved that when large estates are divided up into owner-cultivator units, the form of operation becomes more intensive, density of population increases, and not only is more food produced but the family farm also delivers a larger value of produce to the market than when under the operation of estate owners (76, p. 10).

There is much evidence to show that the owner-cultivator tends to increase employment in agriculture. In England, as illustrated by Edgar Thomas, small holdings provided employment for a larger number of people to the acre than large farms. His study showed that the number of fully employed persons (males and females) per 100 acres decreased with the increase in the size of the holdings. The study also showed an important characteristic of these owner-cultivated holdings and that is,
the way in which all available potential labour is exploited. Thus any relations employed in other occupations but residing on the holdings will almost certainly take an active part in the work. It may be only at busy seasons such as harvest time or it may be in more regular employment every morning and every evening. (114, p. 53)

Consequently, it could be said that the present owner-cultivatorship system in Iraq, which was promoted by the Agrarian Reform Law is expected to give wider opportunities of employment on farms. Under the old form of tenancy, disguised unemployment is a hidden potential source of capital formation in agriculture and elsewhere are removed. Tenancy in Iraq was wasting this potential source of capital formation. Under tenancy, farm operations were not well adjusted to provide continuous employment. The sharecropping system depended on one or two crop farming which provided full employment only during peak seasons and thus left the fallah underemployed much of the year. Even if an over-all policy of full employment is considered, little can be done for removing underemployment in an agriculture characterized by a sharecropping system of tenure. Owner-cultivatorship appears to be one of the most promising remedies (5, p. 438).

Not only can owner-cultivatorship offer wider and greater opportunities for the employment of family farmers and their family members but it can also increase the number of the working population. How this is done was explained by Alwan as follows: As owner-cultivators are likely to be relatively
more prosperous than share-croppers, they can afford better diet, better housing facilities, better clothing and more education. Therefore sickness is reduced, inability to work because of undernourishment is eliminated, and thus more capable workers are secured. Then, too, productivity per man will likely be higher (5, p. 439).

Owner-cultivatorship has also a distinct superiority over tenancy in the development of entrepreneurial and managerial skills. In this regard, Bainer Schickele has pointed out that owner-cultivators being self-employed proprietors not subject to being hired and fired can develop entrepreneurship with its attendant qualities of responsibility and self assurance. They are businessmen with a close personal relation to their work, which is variegated and necessitates every day a series of managerial and technical decisions, adapting the different tasks to the weather, seasons, and growth processes of plants and animals, and to price and market conditions (99).

Experiences in countries where the family farm is the predominant system of tenure—the United States, Canada, Australia, and New Zealand—illustrate the superiority of owner-cultivators (family farm) over tenants or even their landlords in regard to their entrepreneurial and managerial skills and in the assumption of risk and the trying of new innovations made available to them by the government extension service or through other media of information.
A policy of promoting owner-cultivatorship has the great strength of calling forth greater incentives for the energetic and willing effort by the cultivator, and thereby a class active in introducing new technology and making advancement in agricultural practices, may be created (5, p. 440).

The social setting

The arguments and demand for the abolition of large estates that give rise to tenancy are based on social as well as economic considerations. Also, most of the proponents of the family farm form of agricultural organization base their arguments more on socio-political grounds than on purely economic grounds. It is argued that "there are times in the life of every country when it must forget about economics" (5, p. 419).

The emphasis on the distributive rather than on the productive aspects in the family farm theory is not misplaced, for it was noted that such emphasis is not entirely an uneconomic matter. In addition to the direct social benefits there are indirect economic gains to be "derived from mitigating the very uneven distribution of income and wealth which result from the concentration of land property in few hands" (5, p. 420). Hence it has been reasoned that policies which tend toward a more equitable distribution of the national income and offer more favorable chances for individual development are not only expressions of the democratic way of life, but
through their effect on better health, nutrition, improved working conditions, and broader markets actually contribute to or more often act as "catalysts" of economic and social development (125, p. 32).

In communities where tenancy is the predominant form of agricultural organization there is generally speaking a drastic inequality of land ownership distribution and a high degree of skewness of income distribution. In areas where the family farm is a predominant form of agricultural organization there is usually a wide distribution of ownership control over land resources and more equitable distribution of income among most tenure groups. Therefore the standard of life is relatively much higher. "Everywhere tenants, and especially share-cropping tenants, are relatively on a lower plain of living than the average family farmers" (5, p. 420).

As to community development, the family farm system of tenure has distinct superiority over tenancy systems. Lack of community consciousness and community spirit on the part of tenants or farm workers leads to backwardness and disintegration of community life. In high tenancy communities of the South in the United States, Wilson Gee asserts that,

... community organizations are stifled, basic institutions languish, wealth and income levels are lowered, living standards are inadequate, and human individuals lose the respect of themselves and others. (39, p. 182)

On the other hand, in the other regions of the United States
where the family farm is the predominant unit, there is generally speaking a strong sense of community solidarity and loyalty, a willingness to face community problems constructively and realistically and good programs of community development. Unlike the tenants, family farmers usually enjoy at least a moderate socio-economic status and a higher level of education and thus very few of them lack interest or experience for certain types of formal participation in community affairs.

In most lesser developed nations in which large estates operated by tenants, sharecroppers or farm laborers prevail,

... there is great discontent with this form of agricultural organization to which it is attributed all the causes of poverty, inequality, insecurity, ignorance, and low levels of nutrition, health, and education. (5, p. 421).

In Iraq, it was made clear in Chapter II of this study that the high rent (share in the produce) extracted by the malla-keen (landlords) leave the fallah (peasant) with very little to subsist on, to clothe himself and his family well and to have decent housing facilities. The fallah's standards of hygiene, health and education are the lowest in the nation.

Perhaps one of the main evils of tenancy which is responsible for the retardation and disintegration of community life in high tenancy communities is the insecurity of land occupancy and tenure. Insecure tenure on land is the chief cause of the tenant unrest, instability of the farming operations, and the high mobility from one farming area to another.
No wonder that the tenant lacks interest in the development of the community, which does not assure him security of expectations on the land. A tenant may stay on one farm for many years, but he is never certain whether he will be permitted to stay another year or be asked to move on a short notice. (5, p. 423)

Such a state of uncertainty of land occupancy and insecurity of tenure is not only disastrous to community life and its basic institutions, but also results in many adverse economic effects on agricultural production and land improvements.

Consequently, owner-cultivatorship (family farm) is superior to tenancy in terms of security of tenure and stability of land occupancy and thereby in terms of degrees of freedom of the will, primarily in the time dimension.

An owner cultivator family has an assured domain for the exercise of its own will with reference to the use and disposition of land as long as this ownership shall run, even from generation unto generation. The extension of this domain may be small due to the limited area owned. In tenancies, however, the domain for the exercise of the will is time-bound, although the real dimensions of the domain may be larger for tenants than for owner cultivators. (87, p. 5)

The political setting

The American Senator Thomas Hart Benton speaking of the policy of granting free land to settlers stated:

Tenancy is unfavorable to freedom. It lays the foundation for separate orders in society, annihilates the love of country, and weakens the spirit of independence. The tenant has, in fact, no country, no hearth, no domestic altar, no household god. The freeholder, on the contrary, is the national supporter of a free government, and it should be the policy of republics to multiply their free-
holders as it is the policy of monarchies to multiply tenants. We are a republic, and we wish to continue so: then multiply the class of freeholders; pass the public lands cheaply and easily into the hands of the People; sell for a reasonable price to those who are able to pay; and give without price to those who are not .... It brings price above rubies—a race of virtuous and independent farmers, the true supporters of their country and the stock from which its best defenders must be drawn. (46, p. 142).

American people believe in the merits of the family farm (owner-cultivatorship) and its superiority over tenancy is deep-rooted and reflected in the history of their land legislation. Here, the choice had to be made between a free land system based upon the family farm and supported by a democratic government and a semi-feudal land system with accompanying non-democratic institutions. It was argued that the creation of a country of owner-cultivators would not only guarantee personal freedom, but would assure maximum utilization of resources, adequate conservation of the soil, and wide distribution of wealth and income.

The objectives of American land policy of freedom and equality through wider and more equal distribution of land ownership has been adopted abroad in some lesser developed nations.

Such adaptation may in some countries have been influenced by Americans. Americans have been impressed by the success of communists in winning over the peasants of much of the world through their slogan 'land to the tiller'. In order to check communism redistribution of land is indeed the most effective means in predominantly poor agricultural countries. (5, p. 444)
In several countries of the Middle East the oligarchical character of their governments is due in the main to the social and political power of mallakeen and the submissiveness of the farm population to their will. In Iraq, before the enactment of the Law the poor landless fallahin lacked virtually both economic and political freedom. They enjoyed the least amount of freedom from want and of freedom from arbitrary interference by other powerful persons. Although political freedom (right of voting) was granted to all citizens under the constitution, the landless fallahin could not vote or even if they could, they had to vote their landlords to power or anyone which the landlord favored (5, p. 447).

There is no better way of achieving political freedom for the cultivator than to make of him an independent owner-cultivator. Schultz and others had this to offer in regard to the democratic values of owner-cultivator (family farm):

The values underlying a political democracy are far up on the scale of ultimate values. They are sufficiently fundamental in nature to encompass and penetrate the family farm. The family farm is also an instrument of democracy although not per se democratic, and studies show that in areas where it predominates there is more widespread and active participation in community affairs and greater support for established institutions and policies. From this we might properly infer that policies and programs designed to strengthen the family farm will serve likewise to strengthen government and to stabilize the political and social institutions through which it operates. (1, p. 401)

From the foregoing reasoning it is clear that (family farm) owner-cultivatorship has distinct merits over other
forms of agricultural organization from the standpoint of socio-economic and political development of Iraq. Most important of all is the fact that this form of organization is the one most compatible with the preferences, aspirations and beliefs of the people at large. There is good reason, therefore, to recommend that means such as the Agrarian Reform Law of 1958 should be found and formulated in order to establish this system all over the country and reduce the extent of tenancy and improve its conditions.

However, due to the absence of laboratories in social sciences it is difficult to formulate new questions which can disclose previously unknown opportunities in the environment. It is very easy to see difficulties arising in carrying out any proposals for change, while it is very difficult to formulate solutions that will prove desirable on being carried out (67, p. 190).

Therefore, the suggestions of social scientists, according to Professor Kanel, tends to be either too radical, because they work from the premises of their discipline and their personal interest, rather than from the strategic difficulties and opportunities of the problematic situation; or it tends to be too conservative because knowledge deepens understanding of interrelations and appreciation of danger from tinkering with complex phenomena (67, p. 190).

Nevertheless, the position taken here is that of Pro-
fessor John Timmons that solutions for problems can be valued only in the time and place context of a problematic situation (120). There is a tendency to discuss values in the abstract, to make lists of ends that people possess. These values are prizings, evidencing human effort in preserving in activities that have desired end results (24, p. 14).

Professor Kanel affirms that economists tend to look back on successfully concluded problems and to note how the new achievements, of say

... the industrial revolution, are grouped under terms like increased happiness, health, leisure, which are old in human language. So it seems that new means were added to the arsenal for the achievement of age-old human ends. (67, p. 193)

But in the midst of the uncertainty of the problem,

... clinging to old notions of happiness takes the form of trying to smash the machines. New ways to be happy are still to be found in the new environment which is in the process of creation. New values, new ends are literally being born. (67, p. 193)

What is neglected in the typical separation of goals and means is experience.

Experience is creative, time consuming, costly, and irreversible. Experience does indeed use accumulated knowledge and values in new undertakings. But these are now in the nature of experiments providing unforeseen consequences and suggesting the trying out of yet newer activities. Old ends begin this process, but new integrations depend on working out new institutions and new prizings. For the lack of experience with the new opportunities, old ends are inadequate. (67, p. 193)
To compare conflicting sets of values held by different or even the same segments in society, is the method of compiling values held by people utilizing these as a standard to evaluate a particular institution like a family farm. Therefore, family farms may be tested against a bundle of values composed of adequate living standards, production efficiency, conservation of resources and so on, the method being justified in that the listed goals are more important or in a sense higher than the goal of family farm (67, p. 195). It seems from our earlier discussion that the Iraqi society would place the ends of a family farm higher in the list of the social welfare function of the nation at large. This is because the quest for a dignified citizenship appears to be the greatest social force in the country today. A dignified citizenship has two dimensions, as explained by Professor Parsons (86, p. 41), a minimum economic security as well as political freedom. "Economics and politics must go hand in hand as a condition of political stability." It is this fact of history, according to Professor Parsons, that seems to be asserting itself in much of the world today in the great agitation for agrarian reform, for "land to the tiller". Fortunately, owner-cultivatorship to which the majority of peasants aspire is not an inefficient form of economy.

Professor Parsons further asserts that social and economic policies which are productive of public benefits in the
long run must have a solid moral foundation. The great dynam­
ic of a free society is the principle of willing participation
by its citizens, and not technology or material things. The
latter are instruments or tools which are shaped by thought
and energy. When considered in such a light even efficiency
and productivity become by-products of freedom of mind as
well as spirit. No other form of land tenure yet devised
appears so likely to elicit the willing and vigorous partici­
pation of the cultivators in the economy as does owner-culti­
vatorship. "What is required of a tenure system is that it
should offer to most of the cultivators of the land some hope
that they can by their own efforts make their lot better"
(86). The family farm system promoted by the Agrarian Reform
Law will give such a hope to the fallahin in Iraq.

In conclusion, it is appropriate to quote from Dr. Alwan
as follows:

There is no better way of achieving political,
economic (and social) freedom for the cultivator
than to make of him an independent owner-cultivator.
By converting the landless fallah into owner-cul­
tivator he will thus be liberated from the destruc­
tive economic, social and political influence of
the landlord since he himself will become a land­
lord. In this way deputies in parliament will be
chosen not because they hold large estates and want
to safeguard their own interest but because of their
contribution and services to the development of the
community or the nation at large. It is only then
that the statesmen coming to power will have the
sense of public responsibility for understanding
the many needed economic and social services in
the interest of the population as a whole. (5, p.
447)
CHAPTER VI. MEANS OF SUPPORTING THE AGRARIAN REFORM PROGRAM IN IRAQ

The establishment of owner-cultivatorship whether through settlement schemes or land redistribution or any other means is the beginning rather than the end of the agrarian reform program. There may not be an end. Agrarian reform has to be considered a continuous process. Its success depends upon many other complementary actions taken in the development of other programs.

To design a framework for productive investment and technological advance in agriculture, measures will be needed to furnish the fallah with (1) adequate and better tools, equipment, and machinery; (2) adequate supply of credit, preferably supervised and at easy terms; (3) with advice or "extension"; (4) with improved seeds and fertilizers; (5) with alternative employment opportunities, through the development and expansion of secondary industries, to accommodate surplus farm labor and reduce the tendency for decrease in size of landholdings.

In this chapter emphasis will be on several important subjects—mechanization of agriculture, agricultural credit, and cooperatives—and the discussion of their contribution to the support of the agrarian reform program in Iraq and general economic development.
Mechanization of Agriculture

Relations between labor and capital have always been of great concern to economists. Mechanization of farming in a developing country affects the whole economic and social structure. It changes, in general,

... a primitive and self-sufficient production into a complex, more specialized and commercialized agriculture which depends less on human labor and natural resources and has many advantages but also creates many and varied problems. (3, p. 273)

For a long time there has been a shortage of draft power, animal and mechanical, in Iraq's agriculture in relation to cultivable lands and farm labor available for production. The use of horses and oxen for opening pasture and ploughing the land has not been satisfactory. This fact and the enactment of the Agrarian Reform Law provide the important causes of mechanization and partly explain the recent expansion of agriculture in Iraq. Mechanical power has given the fallah the possibility of increasing his crop land and enlarging his farm operation, especially in the areas where additional land was available.

High capacity agricultural machines such as tractors, combines, plows, etc., help farm work to be done at the proper time. This is especially important for grain farmers who generally have limited periods of time for their plowing and seeding. With the Muhrath (wooden plow) and oxen the fallah could not prepare the soil for fallow in time and till it as
frequently as necessary. And furthermore, as Akten has illustrated in the case of Turkey, which is also true in the case of Iraq, that

Because winter grains generally yield higher than spring grains and because they also are less risky, the (fallah) usually prefers them to spring planting. However, to have these benefits they should not be seeded in most parts of the cereal regions later than October. Seeding grains can be done only when it rains and the soil softens. Fall rains are undependable and the (fallah) may be forced to seed his fields unduly late or to defer it until spring. Even if fall rains come in proper time it may give the (fallah) only a very short period of time to finish his plowing and seeding. (3, p. 274)

Under such conditions tractors and other machinery prove very useful in accomplishing farm work at the proper time. Furthermore, such implements perform a better job and help the fallah perform farm operations in more advantageous ways. Both timeliness of operations and better performance by the use of machinery bring higher yields in various crops. In addition, the use of drills in planting may save on quantity of seed used. Drills also help in more efficient use of fertilizers. Mechanical harvesting and threshing reduces losses by perhaps 40-50 per cent and add to the yields. The combined effects of various machinery may amount to perhaps 30 per cent increase in yields of major crops. This may also mean even greater quantities and higher values as mechanization continues.

Recognizing the inseparability of farm mechanization and farm advancement, the government of the old regime devised
and financed a vast scheme for introducing machines to the Iraqi fallahin. Hundreds of tractors, combines, plows, etc., were imported and made available on rental basis to those who wished to use them. The program was financially a failure. In some respects the importation of machines may have done more harm than good. Most of the Iraqis lacked the most basic comprehension of the operation and maintenance of these machines. Consequently the machines were misused, poorly adjusted and quickly put out of service. The cost of the machines and their repair parts was extremely high. In addition, the machinery dealers were not well established and would not or could not supply the repairs and services necessary to keep the machines operating.

After the enactment of the Agrarian Reform Law in 1958, the Higher Committee for Agrarian Reform gave special consideration for mechanization of agriculture in the country. The Directorate General of Agricultural Machinery and Implements was assigned to the Ministry of Agrarian Reform. The aims of this Directorate are to prepare technical workers for operating, maintaining, and repairing all types of agricultural machinery and implements. The Institute of Practical Training on Agricultural Machinery and Implements in Baghdad and an Institute for Training Machine Operators were established for such purposes.

Another function of the Directorate is to lease to the
fallahin at cost agricultural machinery such as tractors, water pumps, harvesters and bulldozers. Newly settled fallahin are permitted to pay for the use of such machines at the end of the season. Others are required to pay cash for the service.

The Directorate established four important stations and other small units in various parts of the country. The main stations and their sections are as follows:

1. Abu Graib Station: An amount of I. D. 314,000 ($879,200) was allocated for this station. When completed, it will have 31 tractors, 10 combines, two bulldozers and one digger. The station has five substations, one in each of five towns.

2. Kirkuk Station: Construction of this station has started. About I. D. 318,000 ($890,400) has been allocated to this station, which will include five sections in five different towns of the Province. The station will have 32 tractors, 20 combines and two bulldozers to lease to the fallahin in the Kirkuk Province.

3. The Mosul Station: When completed the station will have 100 tractors and 70 combines distributed among the nine sections of the station in various parts of the Mosul Province. A total amount of I. D. 664,000 ($1,859,200) has been allocated for the construction work and equipment needed for this station.
4. The Kut Station: The construction work of this station has started. It will cost about I. D. 310,000 (§868,000) and will have sections in Namaniah, Hussainia, Dujiala, and in Al-Hay. The Directorate General of Agricultural Machinery and Implements has allocated 32 tractors, 15 combines and one digger to Kut.

5. Other Stations: Nine other stations will be completed in various parts of the country. Each of these stations will have many sections to make agricultural machinery and equipment available for lease to fallahin in various parts of Iraq. These include the Arbil Station which consists of four sections, the Sulaimaniya Station with three sections, the Ramadi Station with seven sections, the Diala Station with five sections, the Hilla Station with three sections, the Diwanyia Station with six sections, the Swaira Station which will have a section in Azizia, and two other stations in Nassiriya and Amara, each of which will have four sections.

According to information given by the Directorate of Machinery and Implements there are at present some 3,082 tractors in Iraq. A total of 1,071 combines and 5,650 water pumps are used in the country also. About 616 water pumps, 452 tractors and 198 combines are owned by the Agrarian Reform Ministry. The remainder are owned privately. Table 16 shows the agricultural machinery that belongs to the Directorate General of Machinery and Implements.
Table 16. Agricultural machinery in Iraq^a

<table>
<thead>
<tr>
<th>Name of machine</th>
<th>Number</th>
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<tbody>
<tr>
<td>1. Water pump</td>
<td>616</td>
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<tr>
<td>2. Tractor</td>
<td>452</td>
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<tr>
<td>3. Harvester</td>
<td>198</td>
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<tr>
<td>4. Car</td>
<td>300</td>
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<tr>
<td>5. Diggers</td>
<td>22</td>
</tr>
<tr>
<td>6. Bulldozers</td>
<td>26</td>
</tr>
<tr>
<td>7. Disc harrow</td>
<td>115</td>
</tr>
<tr>
<td>8. Disc plough</td>
<td>43</td>
</tr>
<tr>
<td>9. Ploughs</td>
<td>289</td>
</tr>
<tr>
<td>10. Khoromasha</td>
<td>59</td>
</tr>
<tr>
<td>11. Seeder</td>
<td>73</td>
</tr>
</tbody>
</table>

^aData from (56).

These machines are distributed among the various machine and equipment leasing stations discussed above. Table 17 shows the distribution of the agricultural machines and equipment available in the Directorate General of Machinery and Implements on the various stations in the country.

Prior to the enactment of the Law the government owned 60 tractors, 20 combines, four bulldozers, and 15 cars. Since the enactment of the Law these numbers have grown to 198 combines, 26 bulldozers, and 300 cars. In addition, various other machines are made available on rental basis to the fallahin of the country. This comparison is presented in Figure 11. This is indicative of the increase in use of machinery after the enactment of the Law to support the Law's end in increasing agricultural production.
Table 17. Number of agricultural machines and equipment available in the Ministry of Agrarian Reform distributed on the mechanical stations up to June 1964a

<table>
<thead>
<tr>
<th>District</th>
<th>Water Trac-pumps</th>
<th>Com-bines</th>
<th>Cars</th>
<th>Bull-dozers</th>
<th>Disc ploughs</th>
<th>Disc harrows</th>
<th>Seed-ers</th>
<th>Ploughs</th>
<th>Cultivators</th>
<th>Ditch-ers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baghdad unit</td>
<td>115</td>
<td>1</td>
<td>--</td>
<td>17</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Abu Ghraib unit</td>
<td>--</td>
<td>40</td>
<td>--</td>
<td>32</td>
<td>16</td>
<td>16</td>
<td>9</td>
<td>26</td>
<td>23</td>
<td>57</td>
</tr>
<tr>
<td>Hilla unit</td>
<td>10</td>
<td>8</td>
<td>--</td>
<td>9</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>8</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Diwaniya unit</td>
<td>73</td>
<td>35</td>
<td>--</td>
<td>16</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>1</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td>Kut unit</td>
<td>145</td>
<td>62</td>
<td>26</td>
<td>30</td>
<td>4</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Amara unit</td>
<td>97</td>
<td>19</td>
<td>6</td>
<td>12</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>18</td>
</tr>
<tr>
<td>Basra unit</td>
<td>6</td>
<td>4</td>
<td>--</td>
<td>4</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Nasiriya unit</td>
<td>12</td>
<td>8</td>
<td>--</td>
<td>7</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Kerbala unit</td>
<td>--</td>
<td>11</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Mosul unit</td>
<td>5</td>
<td>29</td>
<td>15</td>
<td>14</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>18</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Kirkuk unit</td>
<td>34</td>
<td>17</td>
<td>13</td>
<td>1</td>
<td>--</td>
<td>29</td>
<td>5</td>
<td>31</td>
<td>12</td>
<td>--</td>
</tr>
<tr>
<td>Arbil unit</td>
<td>--</td>
<td>31</td>
<td>12</td>
<td>9</td>
<td>--</td>
<td>22</td>
<td>15</td>
<td>20</td>
<td>10</td>
<td>--</td>
</tr>
<tr>
<td>Sulaimaniya unit</td>
<td>1</td>
<td>31</td>
<td>7</td>
<td>10</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>2</td>
<td>9</td>
<td>--</td>
</tr>
<tr>
<td>Workshop of agricul-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cultural machinery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latifia unit</td>
<td>21</td>
<td>22</td>
<td>16</td>
<td>19</td>
<td>1</td>
<td>28</td>
<td>--</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Car division</td>
<td>--</td>
<td></td>
<td>--</td>
<td>53</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Azizia unit</td>
<td>45</td>
<td>14</td>
<td>14</td>
<td>5</td>
<td>--</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Diala unit</td>
<td>13</td>
<td>24</td>
<td>10</td>
<td>10</td>
<td>--</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Swaira superintendent's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>office</td>
<td>69</td>
<td>17</td>
<td>6</td>
<td>10</td>
<td>--</td>
<td>--</td>
<td>3</td>
<td>--</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Ramadi unit</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>General Director-</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>40</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>ate of Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>616</td>
<td>452</td>
<td>198</td>
<td>300</td>
<td>26</td>
<td>43</td>
<td>115</td>
<td>73</td>
<td>289</td>
<td>59</td>
</tr>
</tbody>
</table>

aData from (55).
Figure 11. Comparison of the agricultural machines and equipment available for the Directorate General of Agricultural Machinery and Implements before and after the enactment of the Agrarian Reform Law of 1958.
Agricultural Credit

It has been said that any improvement in the agrarian structure must be accompanied by credit to provide the tenant or the small owner-cultivator with funds to finance his production, his subsistence needs during the period between planting and harvesting of crops, and the marketing of his crops. Such credit would enable the fallah to make full use of his time and sell his produce at prices most advantageous to himself.

It is to be remembered that the fallahin in Iraq generally pay usurious rates of interest on funds they borrow to finance the operation of their farms, their subsistence needs, marketing of their crops and purchase of draft animals and farm implements. The fallahin usually borrow from professional money lenders, merchants and mallakeen in the case of tenants. These fallahin are forced to go to these sources of credit, especially for their subsistence needs between planting and harvesting of crops, because they do not possess the security generally required by banking institutions.

This lack of adequate supply of credit at reasonable rates, especially in agriculture, has been one of the major obstacles to economic development in Iraq. A good agricultural credit program is an important element in increasing the agricultural productivity and enabling the fallahin to
keep free from the money lenders. Realizing the fact that credit must be supervised because of the fallahin's lack of experience in budgeting and planning, the government in Iraq established the Agricultural Bank with a nominal capital of I. D. 1,000,000 equal to $2,800,000. This amount is obviously insufficient to serve the farmer's needs to purchase fertilizer, livestock, tools and machinery. In the Report of the Mission for Economic Development, organized by the International Bank of Reconstruction and Development at the request of the government (50), the suggestion was made that the capital of the Bank be increased to a total of I. D. 2,000,000. Subsequently the Bank's capital was raised to I. D. 3 million. The Law of 1956 raised the authorized ceiling to I. D. 4 million.

Although its main function is to assist fallahin in various ways, the Bank limited its activities to the more substantial landlords. Fallahin usually could not get loans from the Bank because they have no security to offer. Dr. Adams' findings make the point clear:

Farm credit institutions presently in operation tend to accentuate the polarization of Iraq's rural society. The Agricultural Bank, the agency in charge of public lending to farmers, operates under conservative regulations in regard to the security required for loans, and has no facilities for supervision of credit. Consequently, since its creation in 1937, it has been limited almost entirely to making loans to large landholders. (2, p. 137)

The situation of the fallahin is even worse if they turn
to private moneylenders, which is the only source of effective
credit available to them. Loans are made for short-run con-
sumption purposes at high interest rates which tends to keep
the fallahin in constant debt. Mr. Abdul J. Faris, in his
Two Years in the Middle Euphrates, as quoted by Khayyat (68),
makes the point clear.

Monthly rates of five and ten per cent are common,
and it is very rare for the Fallah to get a loan
with less than these rates. Such exorbitant rates
usually amounting to 200 per cent a year are usual-
ly charged by professional Jewish moneylenders.
Moreover, many innocent and ignorant farmers often
fail to ask for a receipt, or to make sure that their
papers are cancelled upon repayment of their debt—
it goes without saying, some ruthless moneylenders
have used the ignorance of farmers to their full
advantage and most often repayments are made twice
for the same debt. (68, p. 65)

These high interest rates in Iraq are blamed on the scar-
city of capital in the country. The scarcity of capital in
Iraq is partially the result of uneven distribution of wealth
and income. Also, few financial institutions exist which are
developed and organized enough to facilitate and collect sav-
ings, on the one hand, and mobilize such savings into the
fields of investment on the other hand.

Furthermore, the highly uneven system of wealth and in-
come distribution in agriculture is adverse to saving and in-
vestment. The majority of farm population has no surplus
earnings to save. Those few in whose hands the wealth and
income of the agricultural sector is largely concentrated are,
by and large, spendthrifts. Most of their income is spent on
unproductive or less productive matters outside agriculture. "Very little is made available for investment in agriculture; and this is largely in the form of small loans advanced to peasants which are in turn mostly spent for consumption" (5, p. 475). Another factor which makes capital scarce and costly in the country is the nature of agriculture itself. Agriculture in all countries, and Iraq is not an exception, is exposed to many unpredictable hazards due to weather, flood, pests, etc. As a result, returns in agriculture are unpredictable and the risks are great. Moreover, the long period of production and the consequent failure of the supply to adjust itself to demand results in repeated fluctuations in crop prices; therefore, the fallah is never sure, under usual loan terms, that he can meet his obligations when they come due.

Furthermore, as Alwan illustrated,

Agriculture is generally undertaken in small-sized units on a sole entrepreneurship basis, a fact that deprives the farmer of the benefits of many financial instruments, techniques and institutions that serve in financing manufacturing and tertiary industries. Again, the fact that a farm is a home as well as a business making it (is) difficult to draw a line between the spending of proceeds of loans by the farmer for production or consumption purposes. If the largest portion of the loan is spent on consumption goods with little invested in production goods, the productivity of the farm may not be increased enough to enable the farmer to repay the loan systematically. (5, p. 477)

The Government of Iraq realizes now that credit plays an important role in agricultural development and economic
progress in general. Also, it has been realized that agriculture requires special credit provisions suitable for its physical and economic characteristics and agrarian reform programs require financial assistance to support and sustain the new structure. Experiences related to the Land Settlement Law have shown lack of adequate credit has retarded production and land improvements and aggravated the effects of land tenure problems.

The government recognized that agrarian reform programs require one or more agencies to finance (1) the purchase and resale and redistribution of lands subject to expropriation, and (2) new owner-cultivators, tenants, and their cooperative societies. New small holders and tenants do not usually possess enough financial funds to organize and reorganize their plots, plant them, build or improve their housing facilities and get well established. As mentioned earlier, it may take the new holders several years before they become firmly established and expect a regular income. Meanwhile, they would be in desperate need for credit and also for technical assistance.

Therefore, not even the regular agricultural banks are able to finance these operations without great change in their institution. Countries that undertook wide-scale agrarian reforms have had to recognize their credit system in order to provide the necessary aid. It may be wise for governments
which are thinking of implementing agrarian reforms to prepare for the credit framework that is essential to aid in carrying out the program.

In order to meet the credit needs for agriculture, and agrarian reform programs, the credit system should be equipped with adequate funds and efficient organization able to perform three functions. These functions as listed by Hasan Thamir (113) are: (1) Mobilize capital resources, stimulate savings, utilize its funds efficiently, and channel them to where they are needed when they are needed. (2) Furnish the needed types of credit at such costs and terms as can be met by the borrower and aid him in carrying out agrarian reform requirements and in accomplishing the purpose for which the loan was granted. (3) Cushions the changes in income and mitigates their effects.

Experiences show that to execute these functions, the credit system should provide for a high degree of borrowed participation in its finance and administration, close cooperation and coordination of activities between credit and other agencies, especially those concerned with agrarian reform programs, extension work and fundamental education. The credit system should also provide adequate provisions for various kinds of required loans, securities, disbursement and repayment arrangements, and for efficient supervision.

The experience of the Philippines with supervised credit
appears to be favorable. The country has introduced the granting of supervised loans by the Rehabilitation Finance Corporation in 1949 and by the Agricultural Credit and Cooperative Financing Administration in 1952, through the cooperative marketing association which it is supervising. The Rehabilitation Finance Corporation has adopted the use of supervised credit in making loans to finance the development of land into citrus orchards and inland fish ponds. The loans were long term, running for a period of ten years at interest of 6 per cent per year and repayable on the yearly amortization plan. Such loans were based on land mortgages and improvements thereon.

Supervised loans as granted and practiced by the Agricultural Credit and Cooperative Financing Administration, through cooperative marketing associations, however, are available to small owner-cultivators and tenants. The procedure for making this kind of loan, in the Philippines, is illustrated by the United Nations Report as follows:

When a cooperative marketing association is contemplated to be organized in a municipality, the cooperative organizer of the Agricultural Credit and Cooperative Financing Administration will first lead the farmers in each barrio (village) to organize themselves. When the farmers in the barrio have decided that they will join a cooperative association in the municipality, they then elect a Loan Committee of three members from among themselves. This Loan Committee with the help of the organizer will help each farmer who desires to obtain a loan to make his farm program and a budget based on this program. As soon as the budget is finished, the farmer makes an application for a crop loan based
on this budget. The Loan Committee then checks on the farm of the farmer and determines whether the loan he is applying for is correct in relation to his expected production, minus expenses. This is done for each farmer who desires to get a loan from the Agricultural Credit and Cooperative Financing Administration (ACCFIA), through his cooperative marketing association. Each farmer who becomes a member of the municipal cooperative marketing association must sign a marketing contract with the association pledging the delivery of a specified quantity of his produce to the warehouse of the association. (77, p. 195)

When all the villages in the municipality have been organized, the farmers in all villages meet to formally organize the municipal association. The board of directors is elected, which then elects the officers. Then the applications for loans from each village that have been recommended by the Loan Committee are submitted for action by the board of directors of the association. The total amount of all the loans applied for by the members will be taken and the association makes an application for a loan in that amount to the ACCFA. This application is processed by the office of the ACCFA and when it is found in order, the application is forwarded to the Administrator of the ACCFA in its central office. The Administrator submits the application with his recommendation to the Board of Governors. If the loan is approved, then the office of the ACCFA is authorized to release the total amount of the loan to the treasurer of the association, who in turn releases the amount corresponding to the loans of farmers in each village to the respective "Village Committees" in accord-
for collateral, which in the majority of cases the small owner and the tenant do not possess. It is also believed that collection of loans might be made easier through the practice of supervised credit. In addition, it is our observation that supervised credit can be effectively practiced perhaps only through cooperative associations, since it would require a large force to put it into operation and thus become very costly. However, if cooperative societies will be used to supervise credit extended to new owner-cultivators of an agrarian reform program, such as that in Iraq, there is need of educating them in the use of records, as well as in the proper use of loans.

Thus credit supervision necessitates the integration of credit and educational and technical assistance in one program designed to improve farm operations of rural living. There are many reasons for adopting such a program; the FAO Report on "Policies and Measures to Supplement Land Reforms" listed three reasons:

(1) The low educational status of tenants and small farmers in general and the recognition of the necessity for combining credit and education in a well-conceived program, (2) the problem of supplying credit to the small farmer on criteria of security and other terms more suitable than the conventional type of credit and (3) the need to safeguard the interests of the lending agency. (113, p. 5)

It should be mentioned that the close interrelationship between land tenure, credit, production, marketing, education, etc., suggests that the ideal solution to the basic problem of
an extremely low level of living of a country, such as Iraq, lies in introducing a comprehensive reform program which deals with the major problem simultaneously. However, this does not suggest that reforms that are possible in any one field should be delayed until a comprehensive program can be planned and initiated.

If the main objectives and outlines of a comprehensive reform program are determined, but for one reason or another some of them cannot be pressed vigorously, then the initiation of a more limited reform, consistent with the comprehensive objectives, may provide good starting points from which the more comprehensive reform programs can be launched. Credit reforms in Iraq appear to be much needed and at the same time would be among the least difficult to implement. In this case it may be worthwhile to urge for the improvement of the credit system and at the same time prepare the ground for wider reforms in land and associated fields as well.

The credit program of the Agricultural Bank in Iraq was reoriented after the enactment of the Agrarian Reform Law of 1958. The Bank endeavored to provide credit to fallahin as there was no chance for them to receive financial help from other sources. The Bank started its activities with no domination or control from the feudalistic agencies of the past. The Bank made loans to meet expenses of cultivation and harvesting, to purchase agricultural implements and livestock,
and for land reclamation. It also acts as a mediator for the sale of agricultural implements, livestock, fertilizer, and seeds on an installment basis, on one side, and for the selling of farm produce, on the other. The Bank also entered many contracts to refinance mortgage debts of fallahin to release their lands and orchards from a previous mortgage. Another function of the Agricultural Bank is to encourage and aid the establishment of farm cooperative associations and to provide them with credit.

In order to facilitate lending to the fallahin, the Bank has opened 16 branches in different parts of the country. It has also increased the loan limit in order to give the fallahin a better chance to develop their farms and to buy agricultural machines and equipment. In 1961 the limit of loans was increased from I.D. 1,500 ($4,200) to I.D. 3,000 ($8,400). A remarkable increase in the purchase of agricultural machines by the fallahin during the period 1961-1962 has been noticed; at least part of this increase can be attributed to the liberalized credit.

From 1940 to 1952, the Agricultural Bank loaned only I.D. 2,711,981 to 10,016 borrowers, an average of I.D. 225,998 to 834 borrowers per year. On the other hand, during the period 1961-1962, the Bank loaned I.D. 910,771 ($2,550,158.80). Table 18 will show the purposes for which the Bank made the loans during the said period.
Table 18. Account and purpose of loans made by the Agricultural Bank during the financial year 1961-62*

<table>
<thead>
<tr>
<th>Agricultural purpose</th>
<th>Number of loans</th>
<th>Amount I.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orchard improvement</td>
<td>1,260</td>
<td>370,548</td>
</tr>
<tr>
<td>Purchasing machines</td>
<td>2</td>
<td>1,450</td>
</tr>
<tr>
<td>Winter season loans</td>
<td>875</td>
<td>222,415</td>
</tr>
<tr>
<td>Summer season loans</td>
<td>330</td>
<td>92,425</td>
</tr>
<tr>
<td>Mortgage redemption</td>
<td>22</td>
<td>16,650</td>
</tr>
<tr>
<td>Purchasing of agricultural machinery</td>
<td>175</td>
<td>207,283</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,664</strong></td>
<td><strong>910,771</strong></td>
</tr>
</tbody>
</table>

aData from (51).

The achievement of the Agricultural Bank since the enactment of the Agrarian Reform Law is summarized in Table 19. The Bank has approved 16,224 loans during the period 1958-1964. These loans amounted to I.D. 4,037,984 or $11,306,335, the highest amount ever lent by the Bank during any period.

However, there is still much to be done for the improvement of the agricultural credit system in Iraq. Much improvement can be derived from the experience of the United States in the field of farm credit. The system of agricultural credit sponsored by the United States Government uses private capital through public institutions. The Government obtains part of the capital for these loans from the sale of securities to banks, insurance companies or individual investors.
Table 19. Agricultural loans issued by the Agricultural Bank since the enactment of the Agrarian Reform Law up to June 1964

<table>
<thead>
<tr>
<th>Period</th>
<th>Number of loans</th>
<th>Amount in Iraqi Dinars</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 1-10-1958</td>
<td>1,161</td>
<td>241,388</td>
</tr>
<tr>
<td>To 3-31-1959</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 1-4-1959</td>
<td>3,780</td>
<td>551,141</td>
</tr>
<tr>
<td>To 3-31-1960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 1-4-1960</td>
<td>2,390</td>
<td>559,457</td>
</tr>
<tr>
<td>To 3-31-1961</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 1-4-1961</td>
<td>2,664</td>
<td>910,771</td>
</tr>
<tr>
<td>to 3-31-1962</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 1-4-1962</td>
<td>2,684</td>
<td>875,881</td>
</tr>
<tr>
<td>To 3-31-1963</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 1-4-1963</td>
<td>2,735</td>
<td>655,259</td>
</tr>
<tr>
<td>To 3-31-1964</td>
<td>810</td>
<td>244,087</td>
</tr>
<tr>
<td>From 1-4-1964</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To 5-31-1964</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16,224</td>
<td>4,037,984</td>
</tr>
</tbody>
</table>

aData from (55).

Such a system is recommended in Iraq, on the ground that government capital in the country cannot by itself meet the existing needs of fallahin for credit. It is also advised that a mechanism similar to the Land Bank in the United States, which supplies credit on reasonable terms to those who are engaged in agriculture, be established on a cooperative basis in Iraq. Such a system provides for farmer bor-
rowers to gain the ownership of the Bank through the provision that for every loan they borrow, an amount equal to five percent of the loan must be invested in stock of the Bank. This must be given up when the loan is paid by the local cooperative associations, through which farmers could borrow from the land banks. Thus,

An automatic ratio of one to twenty is provided between the capitalization of the banks and the farmers’ loans. Under such mechanism many benefits result to farmers in the form of lower interest rates, dividends and other values. (5, p. 485)

It is also advised that an act such as the Bankhead-Jones Farm Tenant Act be adopted in Iraq. Such an act would furnish credit for landless fallahin and for other eligible cultivators to enable them to acquire and improve family-size farms or to refinance indebtedness against undersized or underimproved farm units.

The establishment and maintenance of owner-cultivatorship requires also cooperative credit associations, such as the earlier mentioned case of the Philippines, be organized as an effective means to increase the efficiency in the distribution of farm credit and to uphold financial responsibilities. Credit cooperatives have special possibilities for meeting the needs of newly established farmers in matters of production, marketing and education and technical assistance.

Again, as is illustrated by Alwan, the establishment and maintenance of owner-cultivatorship would be strengthened by,
... the provision of credit combined with technical advice in planning how to spend loans to achieve productive purposes, so that repayments can be made regularly out of their increased earnings. The supervision of agricultural credit should both increase the productivity and income of the farmers and guard the interest of the lending agencies. Here, cooperatives can also play an important role in reducing the relatively high cost of supervised credit (through cooperative risk taking and absorption of certain costs by other cooperative activities. (5, p. 486)

Cooperatives

When agrarian reform is mentioned, in its more recent meaning, it is immediately associated with the concept of cooperatives. In fact, cooperatives are regarded as the "driving force of Agrarian Reform the purpose of which is to increase the return from the small holding assigned to the peasant in order to increase his income" (78).

As mentioned earlier, the aim of agrarian reform is to create a class of small owner-cultivators and to narrow the social gap between two classes of people. This in turn is aiming at raising the level of living of this class of small holders by introducing to them new methods of cultivation and paving the path toward intensive cultivation, and at the same time reducing the cost of production.

In areas of small holdings, this goal cannot be reached except through cooperatives. For this reason it is found that in all countries where there is agrarian reform they depend very much on cooperatives to achieve the goal.
Cooperatives are of different types corresponding to the existing economic, social and political mechanisms of a particular country. However, in all cases, their broad outlines and their objectives are nearly the same.

In general, members of cooperatives either join or withdraw from them voluntarily or the organizations are directed by a supervisory system. Supervision of the cooperatives entails each having a well trained manager who is responsible for its various activities, its finances and the granting of credits. His first duty is to win the confidence of the fallahin so as to be able, after studying their conditions and possibilities, to locate their needs and offer advice.

It is believed that supervised cooperatives have proven the most suitable and successful type for rural areas. To give an example, the case of Egypt is offered here as illustrated by Aziz Kadry:

In Egypt we started cooperatives 47 years ago. We now have 2150 cooperatives out of which there are 1760 agricultural non-supervised cooperatives. We cannot deny that these cooperatives helped many farmers during this long period and they are still helping, but in general the result is not satisfactory.

In 1953, after the enactment of the Land Reform Law, we started the other type of cooperative, the supervised one. We have till now 128 agricultural cooperatives in the Land Reform areas. The result of these cooperatives, up till now, is very satisfactory. (113, p. 2)

It is to be mentioned that this supervision will not stay forever, but will decrease gradually until the farmers become
mature enough to carry on with the job. These cooperatives provide farmers with agricultural credit, seeds, fertilizers, cattle, agricultural machinery, develop agricultural operations, marketing, financial aid for social purposes, etc.

There are three factors, which are believed to be very essential in forming supervised cooperatives in the rural areas of the Middle Eastern countries such as Iraq:

1. There should be harmony among the members of each cooperative, i.e. there should not be any great differences in their economic or social status.
2. A qualified and well-trained manager for each cooperative with a staff of technical advisors.
3. The cooperative must be able to provide the members with their needs, such as those mentioned above.

Before discussing cooperatives in Iraq, the experience of some countries in the field of cooperatives is to be cited. It is observed, for example, in the Netherlands that agricultural production as well as the running of cooperatives is supervised through membership in cooperatives is voluntary.

Observance of the by-laws and statutes of their cooperatives is compulsory. Accordingly the area devoted to specific crops is laid down, the date of cultivation fixed, and the kind of fertilizers to be used is specified. (78, p. 3)

The member has to hand over his crops to the cooperative which sells it on his behalf; he cannot sell it directly on the open market.
In Finland, on the other hand, membership of cooperatives is on a voluntary democratic basis with the objective of uniting individual cultivators in local communities. A central organization is created from which the established cooperatives obtain both capital and advice. Denmark has three types of farm organization: the cooperatives, the Agricultural Societies and the small holders societies. All have developed along the lines of small groups of farmers setting local societies. Gradually, as more local societies are set, they have merged into larger units and finally into national federations. The initiative has come from the farmers themselves without any support or interference from the state.

In some regions of Italy, such as Corollato and Opera Cilla, an owner receiving land through the land reform scheme has the right to use it as he wishes. He cultivates the crop he deems suitable and is not obliged to use specific seeds and fertilizers or to follow a definite crop rotation. There the land is distributed in small units each of an average area of one hectare per family, at the middle of which a farm house is built. Most of the land is laid out into orchards. As a consequence of leaving the choice to the peasant of what to grow, different crops of fruit and vegetables are grown on the same unit.

Under such conditions cooperatives have no use since the peasant preserves an individualistic attitude, and as a result
does not benefit from volume cooperative marketing, the use of machinery and other advantages offered by cooperative associations.

However, in other parts of Italy, such as in Molise and Apulia Lucania, those getting land must join cooperatives for a period of 20 years from the time of the deed of sale by which they acquire their land. In those regions, it is believed that expropriation and redistribution of land is not the main objective of the reform. But it also ensures a radical transformation of the land and provides technical and social assistance to the new owners to ensure their proper development. This may prevent new owners of the land from thinking only of their own interest, without any consideration for improving the agricultural production of their units.

Furthermore, by organizing the new land holders in cooperatives, they are protected against unscrupulous speculators who, especially during less prosperous years, might take some steps against the interests of the peasants. Also cooperatives furnish the small holders with the most modern machinery on a big scale and obtain economic advantages for their members from volume sales by the initiation and management of small farm industries (78).

Similarly, in Egypt, Law No. 178 of 1952 has connected the Agrarian Reform and the cooperative system as it laid upon beneficiaries of distributed lands the obligation of forming
cooperative organizations with a view to unification of the activities in every village.

The formation of these organizations immediately after the distribution of Agrarian Reform land enabled the small owners to enjoy the advantages of big ownerships, from the point of view of profiting by the modern technical cultivation processes, use of agricultural machinery, ameliorated irrigation of lands and combatting pests; all these resulted in a reduction of costs in addition to providing for marketing and securing better prices. The activities of these organizations, as mentioned earlier, are conducted under a control (supervised) system guided by the State.

The following activities are laid down by the Law for these cooperative organizations:

1. Extension of agricultural loans in regard to the needs of the land.
2. Organizing the cultivation of the lands, developing the use of selected seeds, storage of crops, combatting pests, and digging waterways and canals.
3. Supply of seeds, fertilizers, livestock, agricultural machinery and facilities of storage of crops.
4. Trade of crops on behalf of producers.
5. Performance of agricultural services requisite to members.
6. Provision of social services to members and their
families such as creation of rural centers, health units, consumption cooperatives, rendering available pure water and electricity in the villages, helping those in need and offering aid to the less capable persons.

The cooperative societies in Egypt are also charged with acquainting themselves with the troubles and problems which stand in the way of production.

From this brief review covering these countries, it is evident that one conclusion could be reached. That is every system corresponds to the conditions existing in the country according to the nature of its land and its farm population. It is very difficult to judge which is better, the compulsory method or the method of free choice. However, it is generally observed that the compulsory method is essential in areas where the cooperative movement is undeveloped or of recent growth.

The first consideration is the maintenance of land return and, as Sayed Marei illustrated, the avoidance of any

... unfavorable reprecussion from the splitting up of big estates into small holdings. The direct enemy threatening the success of any land reform is a drop in agricultural production—it is far more dangerous than the opposition of feudal landlords. Many countries failing to increase land return to modify their reform programme. Hence the adoption of a specific system for supervising the use of the land, either on the voluntary initiative of the farmers or by compulsion, depends upon the effectiveness of the means used according to the prevailing organization. (78, p. 5)
Developing Iraq's economy offers a vast scope for the application of cooperation in its varying forms. The socialist pattern of society requires the creation of a large number of centralized units both in agriculture and industry. The scale and organization can be brought within their reach through the cooperative society.

Nearly a century after it was first introduced in Europe, the cooperative movement reached Iraq in 1944 with the passage of Law No. 27. Although this law was intended to encourage the establishment of cooperatives in the country, little progress had been made up to 1959. The only worthwhile cooperative existing before 1950 appeared to be the producers' cooperative in the Dujaila project. Others were established later in other projects. The Department of Cooperatives within the Ministry of Economics had, by 1951, registered 40 cooperatives of which 39 were consumer cooperatives (50, p. 261). The government encouraged the growth of these cooperatives by providing guidance and sponsorship and through low interest loans. The activities of the movement were limited until the enactment of the Agrarian Reform Law No. 30 (1958) and Law No. 72 (1959). Law No. 30 of 1958 made it a requirement for all farmers who had taken over seized land to organize and join an agricultural cooperative society. The cooperative societies were authorized by Article 32 of the Law* to:

*See Appendix B.
a. Obtain agricultural advances for members of the society according to the needs of their lands.

b. Provide necessary farm requisites such as seeds, fertilizer, cattle, agricultural machinery, and means for storage and transportation of crops.

c. Organize the cultivation and exploitation of the land in the most efficient manner, including selection of seeds and grading of crops, fighting agricultural pests, and digging canals and drains.

d. Sell the principal crops on behalf of their members, deducting installments on land, government taxes, agricultural advances, and other debts from the price of the crops.

e. Render other agricultural and social services required by the members. (52, Article 32)

In accordance with Law No. 72, 1959, the cooperatives became active and the number of cooperative members increased with the increase in the number of the cooperative societies. Since 1958, 173 new cooperative societies of different kinds have been registered. Adding this number to the ones already established earlier, the number of cooperative societies existing at the present appears to be 294. These cooperative societies include 163 housing societies, 34 consumer societies, 93 agricultural societies of which 14 were established in the Agrarian Reform area, two producer societies and two marketing societies.

The number of agricultural cooperative societies is distributed in 14 provinces of Iraq as shown in Table 20. The table indicates that the number of investors in these agricultural cooperative societies were 21,971 persons and the members of the societies were 8,098 for the 14 provinces. It is to be noticed that concentration of these agricultural
Table 20. Summary of the number of agricultural cooperative societies, number of investors, and number of members as distributed among the Liwas of Iraq

<table>
<thead>
<tr>
<th>Liwa (province)</th>
<th>Number of cooperatives</th>
<th>Number of investors in the cooperative area</th>
<th>Members in the cooperative area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mosul</td>
<td>7</td>
<td>1,738</td>
<td>1,356</td>
</tr>
<tr>
<td>Arbil</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Sulaimaniya</td>
<td>7</td>
<td>1,245</td>
<td>513</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>5</td>
<td>74</td>
<td>199</td>
</tr>
<tr>
<td>Baghdad</td>
<td>9</td>
<td>2,095</td>
<td>128</td>
</tr>
<tr>
<td>Ramadi</td>
<td>1</td>
<td>51</td>
<td>12</td>
</tr>
<tr>
<td>Diala</td>
<td>2</td>
<td>470</td>
<td>115</td>
</tr>
<tr>
<td>Hilla</td>
<td>19</td>
<td>4,640</td>
<td>2,395</td>
</tr>
<tr>
<td>Karbala</td>
<td>9</td>
<td>2,237</td>
<td>549</td>
</tr>
<tr>
<td>Diwaniya</td>
<td>5</td>
<td>1,432</td>
<td>1,055</td>
</tr>
<tr>
<td>Kut</td>
<td>23</td>
<td>5,727</td>
<td>1,733</td>
</tr>
<tr>
<td>Amara</td>
<td>2</td>
<td>900</td>
<td>23</td>
</tr>
<tr>
<td>Nassiriya</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Basra</td>
<td>2</td>
<td>695</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>21,971</strong></td>
<td><strong>8,098</strong></td>
</tr>
</tbody>
</table>

aData from (55).

Cooperative societies is in areas of agrarian reform, for example 23 cooperative societies in Kut, 19 in Hilla and nine in Baghdad. All of these provinces were feudalistic areas where most of the Law's land distribution has taken place.

These cooperatives are formed immediately after the redistribution of the land, to enable the fallah to get the benefit of large scale production, although he has received title to only a small holding. Large scale production becomes possible as a result of grouping small holdings together into
a single unit for cultivation purposes. To these big areas are applied the best technical agricultural methods, the use of machinery, improved irrigation and drainage systems, pest control, together with the best systems of picking and harvesting on a large scale, thus reducing the cost of production, as well as improving it.

The control of crop rotation by the cooperatives on each farm is particularly stressed. The majority of Agrarian Reform farms are regulated according to a period of yearly system of rotation— and this would not be feasible without making the new owners members of cooperative organizations. Thus, best use can be made of the land without exhausting the soil by cultivating crops successively in various farms without cultivating the same crop in the same farm for two years in succession and in a way which conforms with the existing system of irrigation.

It has been indicated earlier that cooperatives should become an important vehicle for the extension of credit to farmers. The agricultural cooperatives in Iraq provide their members with loans in different forms either in kind or in cash according to the needs of their land. These loans include seeds, fertilizers, livestock and machinery. This is the only way to protect the small holder from the avarice of brokers, from being obliged to fall back on merchants on the black market for the purchase of his requisites on long term
credit at exorbitant rates of interest, and from selling his crop at reduced prices.

Furthermore, the cooperative organizations sell the major crops for the fallahin whole-scale. The selling of crops in volume secures a better sale price than if sold individually by each fallah, who, when doing so, sells to small merchants or retailers who sell again to others, thus preventing the fallah from getting a satisfactory price for his crops.

The Agrarian Reform Law specified that these cooperatives should be in keeping with the Iraqi environment and guarantee for it every possibility of success.
CHAPTER VII. EXPECTED EFFECTS OF THE AGRARIAN REFORM PROGRAM ON ECONOMIC AND SOCIAL DEVELOPMENT

In Chapter III, we attempted to make a contribution towards the theory of growth by analyzing the transition process through which an underdeveloped country such as Iraq hopes to move from a condition of stagnation to one of self-sustaining growth. We have indicated that Iraq is labeled with labor surplus, and that the majority of the population is engaged in agriculture amidst widespread disguised unemployment and high rates of population growth.

Our analysis in Chapter III begins with an economy's first departure from quasi-stagnation or the start of the so-called take-off process. This process is defined by Professor Rostow as a period of about three decades during which the economy of a country such as Iraq transforms itself in such a way that economic growth becomes automatic. The characteristics of this process, as has been indicated in Chapter III, are a reduction of the rural proportion of the population, a doubling of savings rates and the initiation and continuous flowering of industry stimulated by the availability of surplus labor (96, p. 25).

In analyzing the growth process of an underdeveloped economy such as that of Iraq, Professor Arthur Lewis (73 and 74) suggests the use of a two-sector model (agriculture and industry). Professor Lewis investigates the expansion of the
capitalistic or industrial sector as it is nourished by supplies of cheap labor from the subsistence or agricultural sector. Banis and Fei assert that, in this respect, development consists of the reallocation of surplus agricultural laborers, whose contribution to output may have been zero or negligible, to industry where they become productive members of the labor force at a wage equal to the institutional wage in agriculture (91). Such a process continues until the industrial labor supply curve begins to shift up.

Professor Lewis' treatment of development in terms of the two sectors economy opened up a new path in assessing contributions of agriculture to economic development. Johnston and Mellor have adopted the same approach to examine the interrelationships between agricultural and industrial development and to analyze the nature of agriculture's role in the process of economic growth (65). Of special interest in this chapter is the fact that the general transformation process from an agricultural undeveloped economy to an industrial developed economy such as the analysis presented by authors such as Johnston and Mellor, Banis and Fei, and Professor Thorbecke, in terms of three distinctive phases each of which corresponds to a particular stage of development. Following Professor Thorbecke (116) we will discuss the characteristics of each phase, then we will analyze the agrarian policy measures appropriate to each phase so as to show the effect of
agrarian reform on social and economic development.

If each phase is inspected from the standpoint of agriculture, the first phase would be called, according to Professor Thorbecke (105), the stagnation or stationary phase corresponding to the traditional society phase in terms of Rostow's classifications, the second phase would be the take-off stage, and the third phase that of commercial agriculture, corresponding to the age of maturity and high mass consumption in terms of Rostow's classification as presented in Chapter III. Phase I is characterized by labor-surplus (labor redundancy). This phase will exist as long as portions of the labor force have a marginal physical productivity of zero. In this phase, the supply curve for labor in the industrial sector is infinitely elastic at the institutional wage rate because the opportunity cost of labor is zero. The institutional wage rate, in this context, can be thought to be determined by the average product of the total labor force (including the redundant part) and can thus be assumed to be equal to the total agricultural output per capita. (The maintenance of this wage level is possible only under institutional or nonmarket forces since under competitive condition, the wage rate would be zero and starvation would result.) At the beginning of phase I, the total population is assumed to be employed in agriculture. (116, p. 9)

As the surplus agricultural laborers are removed from the agricultural sector and added to the industrial sector, a surplus of agricultural products begins to appear.
At the same time, the total consumption of the remaining workers (the institutional wage rate X number of remaining workers) declines, since by definition their wage rate (consumption) is assumed to be constant. (116, p. 9)

This surplus, which is the difference between the total agricultural production and the total agricultural consumption, may be considered as agricultural resources liberated to the market through the reallocation of agricultural laborers. In the terms of Professor Thorbecke's analysis, the agricultural laborer moving to the industrial sector during this first phase "can be thought of as carrying over his own bundle of food (and consumption needs)" (116). Therefore, the transfer of laborers from the agricultural to the industrial sector during this stage provides a potentially significant source of domestic capital accumulation. In order for capital accumulation, as such, to be recognized, the liberated resources making up the agricultural surplus need to be incorporated in the creation of capital or social overhead capital goods in the industrial sector, as will be investigated later.

Phase II starts as soon as all of the surplus agricultural labor force has been absorbed in industry. The marginal physical product of labor in agriculture is positive and increases as additional laborers leave agriculture. However, throughout this stage the marginal physical product is less than the institutional wage rate. Therefore, both phase I and phase II show evidence of disguised unemployment where
marginal physical product is less than the wage rate. The supply curve of labor in the industrial sector shifts upward at the outset of this period because the marginal agricultural surplus is declining, whereas it was constant before.

The farmworker can now be imagined as carrying over to the industrial sector his own wage rate from which is deducted his foregone contribution to total agricultural output (his MPP). It is this increasing opportunity cost that turns the industrial labor supply curve upward. (105, p. 604)

This phase continues until the marginal physical product has reached the level of the institutional wage rate.

Phase III is what Professor Thorbecke calls the commercialization stage. In this phase, the marginal physical product of labor in agriculture is equal to or above the institutional wage rate, and the supply curve of labor in agriculture, which during the first two phases had been infinitely elastic at the going institutional wage rate, turns upward, revealing for each level of real wage rate the amount of labor that may be liberated from the agricultural sector.

Since disguised unemployment has disappeared, the two sectors are fully integrated (economic dualism no longer exists), and market forces are allowed to operate. More specifically, market prices reflect opportunity costs and the allocation process can be made on the basis of these prices. (105, p. 605)

The agricultural surplus has vanished and the wage rate in the industrial sector is determined on the supply side by the marginal physical product of labor (the opportunity cost) in the agricultural sector.
The first phase is one in which the preconditions for take-off—stated in Chapter III—have not yet been met. The concept of development and the acceptance of the desirability of change are often unknown to the vast majority of the fal-lahin at the outset of this period. Even when the objective of development is desired, the great reluctance of changing traditional farming methods, indicating a high-risk aversion, provides an effective obstacle to the implementation of change. This high risk reluctance to new farming methods is rational from the standpoint of the individual peasant, given his environment. The peasant must evaluate the cost of the new method of farming against the future benefits resulting from it. In weighing and estimating those benefits, the peasant is handicapped by his lack of knowledge and even in the event he is convinced that the expected value of the benefits is larger than the immediate costs, "the distribution of outcomes around the mean is of great importance". Professor Thorbecke illustrates:

It is sufficient to discourage (a farmer) from the application of chemical fertilizer for instance, to know that in, say, one per cent of the cases the application of this fertilizer results in losses. The fact that this farmer is living on a subsistence wage prevents him from taking any risk (in terms of a new technology) that could lead to starvation (the marginal utility of a rupee lost is substantially higher than that of a rupee gained at the subsistence level). The position of the farmer during this phase can be compared to that of the gambler who knows that the odds are heavily in his favor but who is prevented from betting because of lack of funds. (105, p. 606)
It is most likely during this stage that the most significant changes in the structure of the economy will need to take place because no endogenous factors seem to be working in the direction of growth. In this respect, economic underdevelopment may be regarded as a quasi-stable equilibrium system, and growth a disequilibrium system as suggested by Professor Leibenstein. What is needed here is to introduce exogenous factors that will stimulate as well as provide a framework that will be contributive to growth.

During this phase, agrarian policy measures can play a significant role as an influence to growth. Particularly agrarian reform appears desirable. In most cases, a land redistribution program from tenants to owner-cultivators (C.1. in the list of policy means provided in Chapter III), as is taking shape in the case of Iraq, would improve the accretionary process, in addition to improving the efficiency of resources. This measure would provide the actual tillers with the full exercise of managerial and operational powers. As Professor Raup has indicated that agricultural policy for maximum growth in this stage of development would appear to call for the creation of patterns of production, consumption, and investment that will maximize the accretionary (capital accumulation) process (92).

An alternative reform to a redistribution of land consists of changes in the tenancy arrangements themselves (C.3.
in the list provided in Chapter III).

Changes that would be conducive to growth would be a shift from share rents to cash rents for the tenants and a considerable lengthening of the terms of the leases, which would increase the security of the tenants and make planning periods longer. (92, p. 12)

However, this alternative would not be as effective as a stimulus to growth and efficiency of production as would be the promotion of family farm (owner-cultivator), as indicated in Chapter V, although it might have some positive impact on some goals of the welfare function. This would be true, as illustrated by Dr. Thorbecke,

... if, under the end of justice the inalienable right of private property was deemed important. It is interesting to note that, as long as agricultural production takes place under conditions of constant returns to scale, a change in the size of the farm unit will not improve productive efficiency. (105, p. 608)

This means that a process of land subdivision through the breaking up of absentee mallakeens' estates, would not affect total agricultural production. Therefore, this is an example of one agrarian measure that would intensify the objective of equality and leave the objective of productive efficiency unaffected.

In the case of decreasing returns to scale, the reorganization of agriculture to include more and smaller farm units would over a range allow the simultaneous attainment of the objectives of productive efficiency, equality, and, indirectly, growth. It is under increasing returns to scale that
economic objectives of an agrarian reform program, such as that of Iraq, are clearly competitive with the distributive objectives.

Professor Heady, suggesting similar objectives for agrarian reform as the ones we have stated in Chapters IV and V, illustrates these three possible cases of returns to scale to show competition among the objectives. He listed three objectives, first, efficiency in the use of resources to produce food from a given set of resources, or to reduce the amount to meet food needs. Second, equity in the distribution of income and wealth or resources such as redistributing resources from persons with large holdings and wealth to those with few or no resources. Third, attainment of social justice. These ends, according to Professor Heady, are not independent and universally non-competitive. He advocates that

Land can be used in a manner to have more farms and a greater amount of distributive justice or political stability. The technology will then be one represented by small farms and large inputs of labor relative to land. (44, p. 583)

If output from given resources drops as a consequence for the creation of more small farms, then the two alternatives are competitive. That is to say, competition between ends may be the result of peasants' lack of capital for adequate farming after they are transformed to owners. However, such forces causing competition between ends could be overcome by an
attack on the supply of knowledge and capital.

However, apart from supply of management and capital, the technical nature of the production function is important in advocating the long run nature of the food and nonfood (social justice, political stability) production possibilities in using farm resources. Given one collection of production elasticities, the ends of distributive justice and political rest could be achieved without sacrifice in food efficiency. Yet under other conditions of the production function, the goals are competitive and the society has to balance more food from given resources against small farms and agrarian structure.

Suppose that the managerial knowledge and capital resources can be the same in the long run after large estates are subdivided, then the goals of food efficiency and those of distributive justice and political stability are not competitive. Figure 12 illustrates the set of production possibilities arising under such conditions. Starting from a level of food production and given a set of nonfood goals expressed by point $S_1$, large estates could be subdivided into smaller plots. Thus, a movement from $S_1$ to point $S_2$ or to the limit $S_n$, where other constraints place restrictions on achievements in distributive justice or degree of political stability, is possible. The relative value that the society affixes to food or nonfood goals then would be unimportant in
Figure 12. Production possibilities in food production goals and other goals of agrarian reform for underdeveloped economies (economies with constant return to scale)
specifying the degree of ends attainment to be achieved through agrarian reform. "As long as a weight or value greater than zero is attached to these goals, the reform structure denoted by point $S_n$ should be selected." (44, p. 584)

Considering the technology in many underdeveloped economies, as in Iraq, favored by prices of labor relative to capital, it is possible that constant returns to scale do exist or are approximated. Aside from managerial skills of the operator, cost economies associated with farms of various sizes are probably small or effectively nonexistent for a labor-type agriculture.

With high prices for capital relative to labor, labor-type agriculture is the most efficient in many less developed countries and the cost economies associated with mechanized agriculture are unimportant. (44, p. 584)

On the other hand, with food produced under increasing scale returns, then the production possibility curve indicates competition between the goals, such as in Figure 13. The establishment of an agrarian reform to increase number and decrease size of farms, to reach more nonfood goals, necessarily causes reduction in food quantities produced from a given selection of resources, or requires more resources for a set quantity of food. This condition predominates mechanized agriculture in advanced economies such as that of the United States.
Figure 13. Production possibilities in food production goals and other goals of agrarian reform for mechanized agriculture in a highly developed economy (economies with increasing scale returns)
Increase of farm numbers by four to allow more farming opportunities would require a smaller output from an equal collection of resources, or would require more resources for given food output. (44, p. 585)

In this case, the social value attached to the alternative ends or goals then is important in deciding the particular welfare maximizing combination. If the community indifference curve has relatively little slope, indicating a high value on food relative to the nonfood ends, or the production possibility curve has great slope, the combination chosen might be that indicated by $S_3$. However, if indifference curves have a relatively large slope or the production possibility curve has little slope, then the preferred point (tangency between indifference and possibility curves) might be $S_4$.

Obviously, the nature and elasticities of the production function are important, along with the values attached by the community to nonfood ends, in specifying the 'type and degree' of optimal agrarian structure. (44, p. 585)

Considering an orthodox production function, the production possibility would be similar to that of Figure 14. Over the span of decreasing scale returns, complementarity (positive slope of the opportunity curve) exists between food and stability or distributive goals. By having fewer number of large farms, more food would be forthcoming from given resources. The large number of small units would permit attainment of other goals or products which result from this size
Figure 14. Production possibilities in food production goals and other goals of agrarian reform in a decreasing scale return economies.
complex. Such a situation prevails where large estates are held by absentee landowners only for purposes of prestige, inflation hedging, gaining or attainment of aristocracy.

At the selection of inputs defining constant returns for the food production function, the opportunity curve attains a maximum at point S₆, turning to a negative slope and competition as increasing returns to scale are encountered on the production function. Welfare can be increased, in spite of the relative values attached by the community to food and non-food goals, by movement over the range of complementarity between point S₅ and S₆. More of both may be attained in a re-organization of agriculture to take into account more and smaller farms. However, relative values or weights become important, along with the magnitude of elasticities of the production function, in specifying the optimum point on the negatively sloped portion of the possibilities curve.

In the general framework presented above, even considering alternatives in values attached to different goals, the stage of economic development and factor price relatives that arise have importance in specifying optimum agrarian structure. Professor Heady illustrates this point as follows:

At low stage of economic development and high price for capital relative to labor, weight is thrown to labor-type agriculture without great scale economies and with more small farms being consistent with optimum structure. At high stages of development and high prices for labor relative to capital, mechanization becomes the base and with the greater scale or cost economies associated with
it. The optimum structure, even against a given set of values or indifference curves, is one of fewer and larger farms. But also, when the food supply function moves rapidly to the right and the supply price of food is low, consumers may be so well furnished with food that has a very low rate of substitution for other products or alternatives in agrarian structure.

This perhaps is the point already reached in U.S. society, with even the city person slightly engulfed in the nostalgia of 'the good life on the farm' and some willingness to make investment which protects the small farm. Perhaps, however, it is less this and more the desire of farm persons to take advantage of urban life which leads to fewer and larger units, even among commercial classes of farms. Farm youth especially, in number beyond farming opportunities, wish the employment opportunities and the greater ability in expression of individual capacities in industry and the 'good life of the city,' rather than to remain and enjoy the non-pecuniary amenities of the farm. (44, p. 586)

Thus the evidence suggested by Professor Heady, indicates that it is only in highly developed countries where agriculture is commercialized, such as in the United States, that increasing returns to scale exist. The present lack of empirical evidence in developing economies, such as that of Iraq, would indicate that production is taking place under conditions of constant returns (44, p. 587).

To return to the two land reforms proposed earlier as suitable to phase I, it should be clear that "the efficiency of each would be a function of its impact on the welfare function and specifically on growth, and its cost in monetary and non-monetary terms." As Professor Thorbecke points out, "A program of land redistribution, to encourage cultivation by
owners, would be more conducive to economic growth than a change in land tenancy" (116). Therefore, in this respect, the agrarian reform program of Iraq appears to be conducive to economic development, though the cost of such a program in terms of material and non-material resources would appear to be larger than for a change in land tenancy scheme. However, in view of the relatively scarce administrative resources available to the government of Iraq, it would appear that a scheme of changing the tenancy arrangements would be more feasible, yet it would not satisfy the goals of the society.

We have mentioned in Chapter VI that the success of an agrarian reform program (land redistribution) was dependent on the fulfillment of complementary measures. The most significant of these measures, suggested by Dr. Thorbecke, in the first phase would appear to be the institution of an agricultural extension service, B.7. in the list provided in Chapter III, which may take the form of a community development project. The objectives of this extension service during the first phase may consist of the dissemination of information with the view of improving farm management on the assumption of increases in resources, such as fertilizer, tillage equipment, seeds and pesticides (B.2. in the list in Chapter III), are made available to the new owner-cultivators at subsidized prices (A.2. in the list in Chapter III). Supporting this view, Professor Thorbecke indicates that "there is a strong
presumption—supported by firsthand investigations—that improvements in productivity are possible with only slight changes in the input mix" (116).

It has been stated that as the surplus labor force to the industrial sector during this stage an agricultural surplus is liberated. This agricultural surplus, as was indicated earlier, is a source of capital formation. In order to attain this, the country's government should move in two paths; first, it needs to draw off the surplus by means of taxation to stop increased per capita consumption and, therefore, a higher wage rate in the agricultural sector, and second it needs to provide alternative employment opportunities in the nonagricultural sector to make the transfer possible. "These measures—like the blades of a pair of scissors—can be successful only if they are undertaken jointly" (116). The undertaking of public programs in social-overhead-capital, B.4. in the list in Chapter III, mainly in irrigation projects, schools, hospitals, roads and bridges, would furnish the needed employment opportunities for the surplus workers. The capital needed to finance at least part of the capital cost of these programs, may be met through direct taxation as well as foreign investment grants and aid, such as through the provisions of P.L. 480, the U.S. surplus-disposal program. The remaining capital need could be obtained through international agencies and public sources in advanced nations.
Thus it may be said in conclusion that the best parcel of measures during the first phase seems to be a combination of land redistribution, investment in social-overhead-capital, improvements in credit and marketing facilities, subsidies for simple agricultural inputs through a cooperative association, and an extension service that would include the dissemination of new information concerning farm technology, crop diversification, farm management and adult education. Such a combination is now being introduced in Iraq through the enactment of the Agrarian Reform Law of 1958.

The transition from the traditional society stage (stagnation stage) to the take-off stage is very difficult to detect in practice. Whereas in theory, as Professor Thorbecke suggests, the take-off stage begins as soon as the marginal physical product of agricultural workers becomes positive, shifting the supply curve of labor in the industrial sector upward, "this shortage point" cannot in practice be sustained with any degree of precision. The implication of this is that in the enactment, execution, and timing of public policy measures, no absolute distinction can be made as between phases of development.

Certain measures might be undertaken at the end of phase I, instead of at the outset of phase II or vice versa. In general, an earlier institutional change might have some advantages since many policy means appropriate to phase I are also appropriate—usually with a greater intensity of use—to the take-off phase. (116, p. 12)
Phase II is the crucial stage in the development process. Johnston and Mellor emphasize in phase II increasing the efficiency of an existing agriculture by heavy reliance on technical innovations associated with labor-intensive, capital saving techniques, that is related to particular distinguishing features of stage II of the development process. These features are listed by Johnston and Mellor as follows:

1. Agriculture represents a large proportion of the economy; 2. the demand for agricultural products is increasing substantially, but the 'required' increase in output of food for domestic consumption is fixed within fairly narrow limits determined by the rate of increase of population and of per capita incomes; 3. capital for the expanding industrial sector is particularly scarce; and 4. the distinction between resources of high opportunity cost and those which are abundant in agriculture and characterized by low opportunity cost is of considerable importance. (66, p. 568)

The design of a suitable strategy for increasing agricultural productivity requires a high degree of intimate knowledge of the resources and agricultural features of a certain area of a country. As indicated above, precise determination of an optimal production system, involving optimal factor-factor and factor-product relations and operation of the different developmental services at optimal levels, according to Johnston and Mellor, is impossible. There is a substantial margin of uncertainty in anticipating the rewards likely to accumulate from research programs and in predicting the effectiveness with which knowledge of improved technology will be disseminated and applied by individual cultivators. Fur-
thermore, the significance of innovations developed by individual cultivators is an important characteristic of a progressive agriculture and is even more difficult to anticipate (66).

The nature of the problem is to define those factors that are currently limiting increased production and to identify a combination of inputs that will yield large rewards in increased farm production. Studies are needed to determine the nature of present input combinations and returns and ways in which efficient decisions and practices at the farm level are hindered by lack of essential inputs.

A number of such studies have been made to inventory the "non-conventional inputs" important for increasing agricultural output (83). Johnston and Mellor list what they regard the most significant "non-conventional inputs" for increasing agricultural productivity. They are:

(1) Research to develop improved production possibilities; (2) extension-education programs; (3) facilities for supplying inputs of new and improved forms, particularly improved seed and fertilizers; (4) institutional facilities for servicing agricultural production, such as credit and marketing agencies, and rural governmental bodies for fostering collective action such as building feeder roads. (66, p. 570)

These inputs, as considered by Johnston and Mellor, have a number of features important to the agricultural development process.

First, they come from outside traditional agriculture. The individual cultivator makes the decision, for instance,
whether to employ fertilizer or improved seed if such inputs are available. However, whether the improved seed or fertilizer is available in a time, place, and form conducive to increased agricultural productivity is in large part determined by effects beyond the control of the individual cultivator.

Secondly, all of these non-conventional inputs or developmental services involve a large institutional component. Because agricultural extension, education and research programs offer tremendous external economies, these tasks are generally performed by governmental agencies. Under the conditions prevailing in low income countries, such as Iraq, it is also desirable for the government to encourage the creation of, or even to furnish, the institutional facilities necessary to supply certain inputs of production and credit and to process and market agricultural products.

Third is the existence of significant complementarities among the different conventional and non-conventional inputs. It is because of such complementarities that research and extension programs and making available such inputs as fertilizers and other factors can yield large rewards in increasing productivity of the resources already committed to agriculture. The interrelationship between the development of improved seed and increased use of fertilizers has been stressed by Johnston, in reviewing the experience of Japan and Taiwan.
In addition to realizing the desirability of economizing on resources of high opportunity cost, special attention needs to be given to concentrating resources on projects of the highest priority. Johnston and Mellor added that,

Establishing a large number of objectives involves a twofold danger. An attack on items that are not currently of strategic importance obviously increases expenditure and lowers returns on investment. Perhaps more serious, undue dispersion of effort reduces the effectiveness of critical programs because the shortage of competent administrative personnel imposes a severe limitation on the effectiveness of agricultural development programs. (66, p. 571)

This last consideration, according to Johnston and Mellor, weighs heavily against credit programs and price supports that require a considerable amount of high-level administrative talent. The need to concentrate limited resources on priority projects makes it desirable to define those areas within a country, such as the reform Liwas in Iraq, that have high potential for large increases in production.

The significance of education and investment in the human agent has been greatly stressed by Professor T. W. Schultz (101 and 102). Professor Schultz stated that:

Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this capital is in substantial part a product of deliberate investment, that it has grown in Western societies at a much faster rate than conventional (nonhuman) capital, and that its growth may well be the most distinctive feature of the economic system. It has been widely observed that increases in national output have been largely compared with
the increases of land, man-hours, and physical reproducible capital. Investment in human capital is probably the major explanation for this difference. (102, p. 1)

Speaking of underdeveloped countries, Professor Schultz asserted that in these countries, more than in domestic affairs, investment in human beings is likely to be underrated and neglected. Measures have been taken to pave the way for investment of private (nonhuman) capital in underdeveloped countries. This one-sided effort is under way in spite of the fact that the skills and knowledge necessary to take on and employ efficiently the superior techniques of production is in very short supply in developing nations. Some economic growth can be had from the increase in more conventional capital even though the labor that is available is lacking both in skill and knowledge. However, the rate of growth will be seriously limited. "It simply is not possible to have the fruits of a modern agriculture and the abundance of modern industry without making large investments in human beings" (102).

In Iraq, agricultural extension services and training of rural population in the acquirement of new industrial skills as well as promoting rural health and welfare, are being considered part of the agrarian reform program. Agricultural extension has taken the form of community-development programs. Attempts have been made, as has been indicated in Chapter II, at setting up experimental farms, employing new
techniques as well as management methods that differ from traditional methods is expected to show effects on the production side. It is too early to evaluate the effectiveness of community development projects in the country, but it is expected that extension services have performed a major role in disseminating information and increasing the overall knowledge of the fallahin.

It has been indicated earlier that a characteristic of phase II is that the marginal physical product of agricultural labor is positive but below the existing institutional wage rate. However, on the assumption of constant technology and population size made earlier, the transfer of farm labor from the agricultural to the industrial sector would entail the release of a declining agricultural surplus per worker. At the outset of the take-off stage, the agricultural surplus of the first laborers to move would be almost equal to their wage rate but as more workers transferred their positive foregone marginal physical product in agriculture has to be subtracted from their wage rate. At the end of the second phase, the marginal physical product of agricultural labor is equal to the institutional wage rate and the marginal agricultural surplus disappears. Therefore, under stationary conditions, the potential capital accumulation per worker is lower in the second phase as compared with the first phase and furthermore, declines reaching zero at the end of this second phase. This
The assumption of static conditions—constant technology and population size—is relatively valid in phase I, but certainly they cannot be maintained in the takeoff phase. More specifically, it would seem that at least two countering forces are likely to influence considerably the 2-sector model and more specifically the size of the marginal agricultural surplus (the potential capital formation per transferred worker).

The first force would result from the improvements in sanitation, medical knowledge, and availability of drugs which would tend to reduce the death rate, thus leading to a substantial increase not only in the size of the population but also in the rate of population growth. It is obvious that this force would tend to reduce the agricultural surplus, since it can be assumed that the institutional wage rate prevailing in phase I is very rigid downward, being presumably close to the subsistence level. In a sense, part or all of the potential capital formation (the total agricultural surplus) is used up to feed the additional population.

The second force that is likely to take place during phase II is an increase in total agricultural output resulting from the measures undertaken during this period. Increased agricultural output will also mean a larger total agricultural surplus, as long as the institutional wage rate can be prevented from rising.

The net effect of these two forces on the size of the agricultural surplus during the takeoff phase depends on a large number of factors. It is clear, however, that the more positive the net effect is, the closer the economy will get to the commercialization point and phase III. (116, p. 14)

The increase in population is generally related to the improvements in production. The absolute size of the labor force in agriculture is likely to remain very high throughout the second stage and not to decline. Professor Dovring has...
indicated that one of the primary requisites for developing a less developed country is to reduce its agricultural population. This was further discussed by Dovring as he stated:

This proposition embodies two elements. Reducing the relative role of agriculture in the industrial or occupational structure of a country is a direct corollary of expanding other industries faster than population growth, which is an inevitable consequence of any increasing specialization within the economy. Such a process is therefore almost by definition as part of economic development, except in countries which have vast expanses of virgin land, a situation that was more common a hundred years ago than it is now. The second element of the proposition, and the more radical one, is to seek a reduction in the absolute numbers working in agriculture, as one condition for raising the productivity of those who stay in farming, as well as of the community at large.

The two propositions would be identical if the population were stagnant. In this case, a change in the industrial structure would consist merely in transfer of people from one activity or livelihood to another. Such a situation is, however, exceptional nowadays. In almost all countries the population is growing rapidly. Expansion of nonagricultural activities does not therefore in itself imply any reduction of the agricultural population, either relatively or absolutely. How far it means a change in the proportions between the main sectors of the economy depends on the relation between the rate of expansion of nonagricultural activities and the rate of population growth. (26, p. 1)

However, a relative decline in the share of the population in agriculture takes place as the migration from agriculture to the industrial sector continues. Therefore, during the take-off stage, it is necessary that new employment opportunities in the nonagricultural sector open up. Here again such public investment in social-overhead capital projects as
roads, bridges, schools, hospitals, irrigation and fertilizer plants would perform this task and at the same time contribute to the supply of strategic elements that may raise farm production.

Thus, the most suitable agrarian means suggested by Dr. Thorbecke for the second stage of the development process are a combination of research, public investment in social-overhead capital, including irrigation and fertilizer plants, education and extension, the new institutional credit and marketing facilities, together with taxation. That is B.2., B.3., B.4., B.7., B.8., B.9., B.10., B.6., and A.1., in the list provided in Chapter III.

The integration of the two sectors is reached, and a relatively high degree of development is achieved once the economy enters the commercialization stage that is phase III. The structure of the economy during this phase, according to Professor Thorbecke, is much less flexible than during the second phase, and changes are much more gradual. Whereas at the beginning of the general transformation, no endogenous factors inducing economic growth existed, a number of growth elements have become built into the system in the commercialization stage. Economic policy can become quantitative in the Tinbergen sense, discussed in Chapter III, and predetermined targets—such as a predetermined rate of growth of national income—can be attained with the help of instrument
variables (105, p. 611). In the agrarian reform program in Iraq, the development is focused upon the fallah (peasant) and his welfare. The objective is to raise agricultural production as well as rural consumption standards, even if this has to be achieved at the price of a slow rate of industrialization.

The Iraqi agrarian reform program has similarity of structure as compared with reform in countries of the Middle East, Egypt for example. In these countries, including Iraq, the purpose of agrarian reforms was to increase national income only to the extent or under the special circumstances that greater total production resulted from peasant proprietorship. Simply put, the purpose of these reforms may be said to distribute wealth rather than produce it.

However, as indicated earlier, the Iraqi Agrarian Reform Law is concerned not only with the distributive but also with the productive aspects. Yet, the program still retains populist features. This is thought to be a consequence of the social outlook and the feelings of the reform claimants. To the mind of the fallahin, owner-cultivator farming with its independence presents many advantages, discussed in Chapter VII, with respect to the original situation, discussed in Chapter II, that is characterized by a high degree of uncertainty from conditions of tenure. This approach may be self-defeating under conditions of acute population pressure. The
policy makers were particularly aware of such a possibility and considerable emphasis was assigned to the productive aspect of the reform program. The process of land transformation and intensification of production has a purpose of avoiding the dangers of reforms exclusively based on peasant subsistence economy (23).

The major problem the researcher faces when studying a problem and underdeveloped country is the lack of empirical information concerning the quantitative (and sometimes even qualitative) impact of agrarian means on economic growth. Treatment of these empirical relationships is conspicuously absent in this chapter. It is very difficult to predict the results. However in order to focus our discussion on the interrelation between agrarian reform and economic and social development of the country as a whole, we assume that the agrarian reform program in Iraq has been carried out with reasonable success. This means that as a result of agrarian reform, production has increased, income distribution among the fallahin has been improved, social status and opportunities of the fallahin have expanded, and also political stability has been achieved.

Our problem now is to, conceptually, explore the effects of these changes upon general economic and social development and upon the non-agricultural sector of the economy on the one hand, and the effects of the different national policies upon
the progress of agricultural development and the maintenance of the gains attained by agrarian reform on the other hand. It has been stated that "there is a two-way traffic between land reform and the general economy" (22). Thus, each has its impact on the other, the success in one depends in a large measure on the success in the other. It is, therefore, necessary to formulate and evaluate the agrarian reform program in terms of its contribution to economic and social development and vice versa.

Changes in Economic Conditions

Both from the social welfare standpoint and economic efficiency in terms of higher output per unit of the effective labor force the introduction of agrarian reform in Iraq is indispensable to the continuation of its general economic development. In turn, the realization of the goals of economic development will make possible the real gains of agrarian reform in terms of higher income for the fallahin and better income distribution for the whole economy.

Every effort should be made in the country to make use of the mobilized savings, actual or forced, which accrue to, or are concomitants of agrarian reform program for productive investment. Only in this manner can the agrarian reform program achieve what developing countries have been trying so hard to accomplish, that is to accelerate the tempo of invest-
ment in industrial development through cottage industries, processing or manufacturing industries dependent largely on abundant indigenous materials. This is one way of saying that diversification of production and the complementary development of agriculture and industry are the most practical ways of dealing with expanding population or in the long run with the dilemma of agrarian reforms and declining income for the agricultural population. This is also one sure way of prosecuting national development with primary reliance on internal, as opposed to external resources by mobilizing internal resources and funneling these into productive capital-forming enterprises. It has been indicated that measures in the field of agrarian reform may be of considerable importance in promoting domestic savings and increasing the availability and productivity of capital for investment in agriculture. These hold true also for investments outside the agricultural sector.

However, in order to make agrarian reform satisfy the goals of economic development, deliberate and steady efforts must be exerted by the country in carrying through co-ordinated and integrated economic planning. Perhaps at no time in the history of Iraq has the need for economic planning been more urgent than it is now. The National Economic Planning Board that is essential to the preparation of integrated plans of economic development, the determination of priorities in
development, and the allocation of scarce resources (particularly financial) among development programs, must be strengthened and fully developed. These planning bodies can also be instrumental in studying and proposing the necessary institutional organization and institutional reforms that will make the agrarian reform program more comprehensive and better coordinated with the requirements of general economic development (21).

**Improvement in income distribution**

The objective of social justice and expanding the opportunities of individuals requires reduction of poverty. The number of fallahin families living in dire need, without sufficient food, clothing, shelter, health and education services must be reduced so that people can develop their talents and productive capacities, partake in social and economic progress and contribute to community development and public affairs.

Therefore, in Liwas where large proportions of the population are desperately poor, social justice and the many attributes of a vigorous democratic society cannot flourish. In economic terms, the best mean for the extent and seriousness of poverty is the income distribution that shows the percentage of families falling in low, medium and high income brackets.

More concretely, we make use of an example given by Professors Dantwala and Schickele:
... if for a normal family in Bangkok it would take an income of 600 Bahts a month to meet the cost of the necessary essentials of life, the percentage of the families falling below that income level indicates the extent of poverty in the income distribution. The fewer people fall below this critical level, the better is the income distribution. A land reform program, therefore should result in an improvement of the income distribution, that is in fewer families falling below an adequate living standard. Land reform may also reduce the number of families falling in the highest income brackets, but need not necessarily do so, as it is possible under certain conditions to increase the income of the poor without decreasing the income of the rich. Even if incomes in the highest groups are reduced as the result of land reform, such reduction may not be socially harmful or undesirable. In some cases it may be actually desirable to reduce very high incomes, especially, if such extremely wealthy persons do not perform socially useful functions. (22, p. 3)

Another significant aspect of income distribution is the "real income" derived from social or communal facilities, such as schools, hospitals, roads, bridges, irrigation projects, community centers, etc. Where such facilities are made available to low income families, their income in real terms increases and income distribution is improved, even if their individual money income would remain unchanged.

Real income is the flow of all goods and services available to people during a certain period of time, say one year. (Some of these goods and services) are provided by the community free of charge to the individuals, such as roads, schools and other educational, medical, recreational and productive facilities. (22, p. 3)

The success of an agrarian reform program with respect to income distribution as well as production may depend upon whether the development of such communal activities is in-
cluded in the program. Hence, the close relationship between agrarian reform and community development programs.

Finally, it is believed that agrarian reform often does not only affect the income of peasants and landlords, but also that of the State. This is illustrated by Dantwala and Schickele,

> In some areas of India . . . elimination of intermediaries has not materially increased the income of tenants but has increased the revenues to the State. What tenants used to pay to the zamindars, they now pay to the State. (22, p. 4)

In such case, whether agrarian reform improves income distribution depends on how the State uses its increased revenues. If it is used to develop communal facilities in the villages or improvements on the land as has been done in Iraq, then a better income distribution in the rural area (the fallahin) follows; if it is used outside the rural sector, any beneficial effects will be indirect and not immediate, as far as peasants are concerned.

It is felt, though there is no validating evidence, that, on the whole, the agrarian reform program in Iraq will result in a substantial rise in the incomes of fallahin families because of the resulting increase in production— in spite of the fact that in some cases the increase in production may be accompanied by higher costs— and reduction in rent, or payment of small purchase installments. The income of the mallakeen subject to rent reduction and expropriation would decline,
though in some cases the decline might be expected to be partly recovered by better management and greater capital investment in the land remaining in the hands of the mallak.

Income distribution in agriculture is expected to be more equitable as between cultivators and mallakeen, and more in conformity with the relative contribution of each group to agricultural production. Tenancy improvements would reduce the gap between income of tenants and income of owner-cultur­

As indicated earlier, at the present there is no empiri­cal evidence of an increase in farm income after the enactment of the Law. However, the experience of Egypt, with a similar law, has shown favorable results. Dr. Saad M. Gadalla, study­ing the effects of land reform on rural families in Egypt, has found that "families in the land-reform group had an aver­age net farm income for the year (1956) of £96.30, 20 per cent higher than the corresponding figure of £80.20 for the control group" (38, p. 76). Such increase in income is expected in Iraq since it is expected that the productivity of land reform units will be slightly higher than the productiv­ity of such units before the enactment of the Law. This is due to the increased use of fertilizers and seeds, tractors, and, thus, better use and cultivation of the land after the establishment of the Law. Another reason that a considerable increase in farm income is expected, is that the annual
installments paid by the new owner-cultivators is substantially less than the rents paid by them before the enactment of the Law. Also, the cooperative marketing of crops is highly organized among the new small owners, which is expected to result in higher prices for their products.

Effects of changes in fallahin and mallakeen incomes on economic development

If the agrarian reform program in Iraq results in higher incomes of fallahin, there is a good chance of the generation of a desirable chain-reaction throughout the economy. Fallahin demand more goods, which stimulates industrial production, that makes for fuller labor utilization and less underemployment, this increases production and generally improves the income distribution. Such chain reactions do not necessarily occur spontaneously, but often need to be encouraged by positive public policies.

Increased farm income, as illustrated by Dantwala and Schickele, may result primarily in more consumption of home produced food. This may reduce market deliveries and hence the food supply of the city population, with distinctly adverse effects on economic development in cities, at least in the short run. This may be avoided, as suggested by Dantwala and Schickele, by two ways. First, by making more goods and services available to peasants locally at prices and terms that appeal to them, so that they are willing to produce more
for sale in order to buy more city goods and services. Second, by encouraging and assisting peasants to produce more, this should be an integral part of the agrarian reform program (22).

It is believed that the rise in farm incomes as a result of the agrarian reform program in Iraq will increase the demand for a large variety of consumer and producer goods, and thereby stimulate investment in the respective industries. Under the conditions in Iraq, it is also believed that this increase in demand will be for local or domestic products and services, such as textiles, shoes, brick, cement and for local service trades. Some of the increased demand such as that for radios, televisions, bicycles, cars, home appliances, etc., will call for increased imports, if price inflation is to be avoided and this in turn will require expansion of exports that will largely have to come from increased agricultural production. However, even the increase in demand for imported goods will stimulate local employment and investment in service trades and industry.

The agrarian reform program in Iraq will result in reduction of income to the mallakeen, through transfer of land ownership to tenants or rent controls. How does this affect economic development?

It has been indicated by many economists (22) that the landlords in predominantly agricultural underdeveloped coun-
tries, such as Iraq, are the chief source of savings, and hence of capital accumulation, since the majority of the peasants are too poor to save and there are too few wealthy city people. If agrarian reform decreases the incomes of the mallakeen, is there not a danger of choking off the mainspring of capital formation and economic development?

There appears to be very little ground for such fear. Experiences in Egypt and India illustrate that, in some cases, capital accumulation on the part of the landlord has been stimulated as a result of land reform, or at least has not significantly reduced. Some observations, some of which are corroborated by other countries as well, were offered by Dantwala and Schickele. They have indicated that luxury consumption, such as collection of jewelry, breeding of horses, traveling and maintaining mansions abroad, is decreased with no effect upon domestic economic development.

Furthermore, lower income and uncertainty of the future land situation encourages mallakeen to invest their savings more productively, in urban real estate, industrial or trade ventures. To the extent to which such investments are primarily speculative, that is buying real estate or stocks for resale, their effect on economic development is impaired and dissipated, usually through inflationary results.

Moreover, expropriated mallakeen are found to invest in the exempted holdings they retain for self cultivation. This
may be their insurance against future expropriation and at the same time raise their income from the land. In India, according to Dantwala and Schickele, much of the increase in machinery, better seed, fertilizer and production techniques has taken place on the larger owner-cultivated farms and on the land retained by expropriated landlords. Some landlords gradually changed their attitude and developed a greater sense of responsibility toward the people and the community (22). However it may be pointed out that in many areas absentee mallakeen have acquired their land through inheritance and foreclosures and never had a genuine interest in farming and the welfare of farm families. In such a case, a change in attitude toward the land may be very slow in coming.

It may be argued that if mallakeen fear future additional restrictions on land holdings, their incentives to improve their land and invest in better production techniques are greatly reduced. As illustrated by Dantwala and Schickele,

This is particularly likely to occur if land reforms are carried out piece-meal and in few selected areas. In such cases, landlords in areas not affected by land reforms may be loath to re-invest any of their rental incomes in land. This would drain savings off from agriculture and transfer them to other non-farm sectors of the economy. However, this often is the usual situation anyway, and has been for long periods before any land reforms were enacted. Where this holds true, one cannot blame land reforms for bringing about such withdrawal of land income from the agricultural sector. (22, p. 5)
Consequently, on the whole, there is a strong feeling that the overall effect of reduced incomes to mallakeen as a result of agrarian reform is not adverse to economic development.

Changes in Social Conditions

The agrarian reform program in Iraq, supplemented by the measures discussed in Chapter VI, will not merely increase the per capita income of the fallahin, but will also improve their scales of preference and increase their desire to live better, which will be made possible by the increased income.

One of the main expected effects of the agrarian reform program in Iraq is to eliminate the serfdom-like conditions of the fallahin and raise their standard of living by emphasizing the human factor in agricultural production.

Better relations will develop between landlords and cultivators through tenancy improvements, and among the cultivators through the cooperation, but the best measure for more healthy social relations is converting tenant farmers to owner-cultivators. (100, p. 13)

Health and medical care

The Ministry of Health is moving with quick steps guided by the reformation policy adopted by the National Government to improve the social and economic conditions in the country, by making preventive and curative services available to all citizens of Iraq. Therefore, the Ministry is undertaking the
heavy burden of preparing a new generation, healthy in body and mind, to participate in an economic, social and cultural renaissance in an effort to catch up with more advanced countries after having lagged behind for an epoch.

To achieve this objective the Ministry has drawn up two basic plans, one of which is to make available preventive health services, i.e. to undertake general vaccination and inoculation against various diseases, to expand the network of centers of maternity and child welfare and school health services, in addition to the other projects of combating contagious diseases, and particularly the endemic type, as well as improving personal health and sanitary conditions by means of health education, of feeding children, school students and mothers and general supervision over public places, to expand health services to rural areas through the Rural Health Service System, and making technical people available by opening schools and courses for specialization in different health fields.

The second plan is to make free treatment available to each patient by increasing and improving hospital facilities in order to receive more patients, expanding the existing hospitals and establishing new ones, doubling the number of beds, and adding new wards and sections to some hospitals. Several treatment centers have been established throughout the country, as well as permanent and mobile dispensaries
which were established and detailed in remote parts of the country (51, pp. 459-492).

In accordance with the principles of the Agrarian Reform Law to eliminate disease and secure free medical care for all citizens, the Ministry of Health recruited all its capabilities for this purpose, to increase the number of doctors. The Ministry approached Baghdad University to increase the number of students admitted to the Medical College to 350 and to open a medical college in Mosul admitting 200 students. This College has started operation during the 1959-1960 academic year. Many nursing schools and dressing courses were also started. Other courses will train health inspectors, health visitors, laboratory assistants, X-ray operators, midwives and children's nurses. Special attention is paid to training women for medical duties.

Supplies, equipment and drugs were purchased to serve these institutions. During 1961, I.D. 912,000 was spent on drugs, I.D. 100,000 on equipment and technical supplies as compared to 44,000 during 1958. Also I.D. 20,000 was spent to purchase equipment for treatment in heart cases, and a further I.D. 14,000 for ophthalmology equipment, and an international tender was announced for the purchase of supplies, surgical and laboratory equipment at a cost of I.D. 95,000.

New hospitals have been opened and their number has increased to 114 during 1961, out of which 109 are attached to
the Ministry of Health, compared to 105 in 1958. The number of beds has increased to 12,722 in 1961, compared to 9,236 in 1958. The number of central medical clinics is 16, compared to only five previously.

Twelve dispensaries for chest diseases were opened in different parts of the country in addition to several other general dispensaries.

Other important health projects being constructed include the Medical City. This project was initiated in March, 1961. The project will consist of a medical school and training hospital, nursing home, children's hospital, school of nursing, and an outpatient clinic. The cost of this project will be I.D. 5,040,000 (51, p. 480).

Education

The fulfillment of the numerous objectives drawn up by the Agrarian Reform Law since its enactment is taking place rapidly. Among other things, these objectives, as indicated earlier, aim at raising the cultural and social standards of every Iraqi individual. Therefore, it is only natural that the Government should show great interest in education. The Government has supported and encouraged the opening of schools, as well as the expansion of other institutions.

This effort was supported by parents, as shown by the increasing number of children seeking admission to the schools. With the support of the Government and the people, the Min-
ustry of Education has made continued progress in its comprehensive cultural program for Iraq.

This movement is regarded as the first and foremost step in the social development and the basis for creating a better generation well prepared to continue toward the development of the country.

The achievements in the field of education, after the enactment of the Law, appear numerous and comprehensive. In order to view the scope of these accomplishments during the life of the Law (only the first four years, no data are available for the last two years), we will refer to the important aspects of progress in the educational program which have already begun, as well as those planned for the future. To realize the extent of progress during the life of the Law, it will be compared with that of the 1957-58 era, prior to the enactment of the Law.

In the field of primary education, the Government has given great emphasis toward uplifting the level of primary education by providing better schools, facilities and more teachers. Consequently, 325 new schools were opened during 1961-62, and 4,000 teachers were hired from among graduates of primary teacher training schools and teacher training courses.

Data prepared by the Ministry of Education show that the number of primary age, i.e. between six and 12 years of age,
amounts to 164 children per thousand of the population, and that of an average of 104 boys per thousand have attended primary schools, while their average before the enactment of the Law was 41 boys per thousand. The average of girls attending primary schools reached 29 per thousand, while it was only 14 per thousand prior to the Law (51, pp. 552-592).

Table 21 shows the achievements in the field of primary education before and after the enactment of the Agrarian Reform Law. The table illustrates that prior to the enactment of the Law there were 2,145 primary schools, 12,937 teachers and 437,502 students. This has increased to 4,153 primary schools, 28,344 teachers and 876,118 students, in 1961-62. Thus there has been an increase in number of 2,008 schools, 15,407 teachers and 438,616 students. Simply put, increasing the schools by 94 per cent, the teachers by 119 per cent, and

<table>
<thead>
<tr>
<th>School year</th>
<th>Schools</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957-1958</td>
<td>2,145</td>
<td>12,937</td>
<td>437,502</td>
</tr>
<tr>
<td>After the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958-1959</td>
<td>2,499</td>
<td>16,202</td>
<td>526,501</td>
</tr>
<tr>
<td>1959-1960</td>
<td>3,327</td>
<td>20,274</td>
<td>652,259</td>
</tr>
<tr>
<td>1960-1961</td>
<td>3,786</td>
<td>25,287</td>
<td>772,058</td>
</tr>
<tr>
<td>1961-1962</td>
<td>4,153</td>
<td>28,344</td>
<td>876,118</td>
</tr>
</tbody>
</table>

aData from (51, pp. 553-592).
the enrollment by 100 per cent, by the fourth year of the life of the program.

In accordance with the "open-door" policy followed by the Ministry of Education 28 new intermediate schools have been opened (16 intermediate schools for girls and 12 intermediate schools for boys). Eight intermediate schools have been converted into secondary schools and 297 teachers have been put into service, all of whom are graduates of the University of Baghdad.

The Ministry of Education is seriously engaged in solving the problem of the shortage of secondary school teachers by employing teachers from abroad on the one hand and by increasing the student enrollment at the Higher Teacher Training Institute on the other hand. It has also urged the University of Baghdad to accept the maximum number of students in those colleges that train them to become secondary school teachers.

The Ministry of Education has also laid down a plan for building school dormitories in every Liwa for students coming from fallahin families.

Table 22 illustrates the rate of increase in the field of secondary education. The table shows that before the establishment of the Law there were 244 high schools, 2,549 high school teachers and 70,092 high school students. By the end of 1962, this has increased to 406, 4,078 and 155,143, respectively. Therefore an increase in number of 162 schools,
Table 22. The achievements in the field of secondary education

<table>
<thead>
<tr>
<th>School year</th>
<th>Schools</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the Law</td>
<td>244</td>
<td>2,549</td>
<td>70,092</td>
</tr>
<tr>
<td>1957-1958</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After the Law</td>
<td>326</td>
<td>3,084</td>
<td>98,559</td>
</tr>
<tr>
<td>1958-1959</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1959-1960</td>
<td>362</td>
<td>3,186</td>
<td>120,155</td>
</tr>
<tr>
<td>1960-1961</td>
<td>374</td>
<td>3,737</td>
<td>137,265</td>
</tr>
<tr>
<td>1961-1962</td>
<td>406</td>
<td>4,078</td>
<td>155,143</td>
</tr>
</tbody>
</table>

aData from (51, pp. 553-592).

1,529 teachers and 85,051 students. In other words, increasing the schools by 66 per cent, the teachers by 60 per cent and the enrollment by 121 per cent.

Due to the wide expansion in the field of education a number of students were accepted at the teacher training schools. The total number of these students is 2,302, of whom 1,380 are boys and 922 are girls (51, p. 563).

Achievements of teacher training schools are shown in Table 23. The table illustrates that an increase in number of teachers in such training centers amounted to 148, and the enrollment increased by 1,799 students. Simply put, an increase of 69 per cent in instructors and a 33 per cent increase in enrollment have occurred since the enactment of the Law.
Table 23. Achievements of teacher training centers

<table>
<thead>
<tr>
<th>School year</th>
<th>Schools</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957-1958</td>
<td>29</td>
<td>216</td>
<td>5,428</td>
</tr>
<tr>
<td>After the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958-1959</td>
<td>29</td>
<td>335</td>
<td>8,336</td>
</tr>
<tr>
<td>1959-1960</td>
<td>29</td>
<td>333</td>
<td>8,173</td>
</tr>
<tr>
<td>1960-1961</td>
<td>29</td>
<td>394</td>
<td>8,220</td>
</tr>
<tr>
<td>1961-1962</td>
<td>28</td>
<td>364</td>
<td>7,227</td>
</tr>
</tbody>
</table>

aData from (51, pp. 553-592).

Furthermore, the Ministry of Education has made an important issue of combating illiteracy and, therefore, has carried out all possible measures to expand an "Illiteracy Campaign". All citizens were urged to attend illiteracy campaign classes. The Ministry of Education has provided lectures, textbooks, stationery and audiovisual aids to all campaign centers. As a result, 643 illiteracy campaign centers were established during 1962 in which 50 thousand illiterates were enrolled (51, p. 564).

The Government has also attached great emphasis on vocational education in the fields of agriculture, commerce, and home economics.

The Ministry of Education has paid great attention to technical education in view of the increasing need for skilled workers demanded by the rapid development of the country. As
311

a result 379 students have graduated from technical education centers, and 1,907 students were enrolled in these centers by the end of 1962 (51, p. 565).

Moreover, the Ministry of Education has encouraged agricultural education by introducing up-to-date agricultural techniques into the agricultural schools and by training the largest possible number of sons of fallahin in modern agricultural methods. The progress of the agricultural schools is shown in Table 24. The table illustrates that, because of the enactment of the Law, an increase of 275 per cent in the

Table 24. Achievements in agricultural schools

<table>
<thead>
<tr>
<th>School year</th>
<th>Schools</th>
<th>Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957-1958</td>
<td>9</td>
<td>33</td>
<td>449</td>
</tr>
<tr>
<td>After the Law</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958-1959</td>
<td>10</td>
<td>60</td>
<td>1,048</td>
</tr>
<tr>
<td>1959-1960</td>
<td>10</td>
<td>93</td>
<td>1,340</td>
</tr>
<tr>
<td>1960-1961</td>
<td>10</td>
<td>118</td>
<td>1,640</td>
</tr>
<tr>
<td>1961-1962</td>
<td>10</td>
<td>148</td>
<td>1,685</td>
</tr>
</tbody>
</table>

aData from (51, pp. 553-592).

enrollment of agricultural schools had occurred in 1962. The number of instructors was increased by 115 instructors, but only one additional school was built.

The Ministry of Education has also given consideration to
the branch of home economics education. This branch of education trains the Iraqi girls to cope more easily with the various changes and advancements which characterize the modern world with respect to domestic science. For this purpose the branches of study have been diversified in the home economics schools, in order to make them comparable to similar schools in advanced nations.

The Ministry of Education reported in 1962 that there were 15 home economics schools in the country, as compared to only seven schools in 1958, before the enactment of the Law. Thus, an increase of 114 per cent has occurred. Enrollment in these schools has increased by 1,950 students or 143 per cent in the same period (51, pp. 553-592).

Efforts were also made toward the establishment of the University of Baghdad, by enacting Law No. 28 for the year 1958, just immediately after the July 14th Revolution. The budget for the University was increased from I.D. 2,069,198 in 1959 to I.D. 3,250,000 in 1962. As a result of the increase in the budget, 351 additional professors were hired and the enrollment increased by 114 per cent. Ten research laboratories were also established in the colleges and institutions of the University for the purpose of training qualified and experienced individuals in the scientific and vocational fields (51, pp. 553-593).

Therefore, it may be concluded, under this heading, that
the agrarian reform program has created an intellectual stimulus that motivated the new owner-cultivators to send their children to schools instead of to the fields.

Community development

No phase of the Iraqi agrarian reform program is more significant or promises a more far-reaching influence than the designation of the community as a fundamental social unit. The Iraqi fallah thinks first of his own home; only recently has he commenced to appreciate that his and other homes make a community. In the past the typical fallah bought little and had little to sell. The farms were largely self-supporting. Roads were bad; transportation facilities were not available, and the fallahin were too widely scattered to come together. The family was the fundamental social unit; social and economic life revolved around it.

But the modern farm of Iraq is no longer largely self-supporting. It is now a part of a complex economic system, conducted with money and dominated by the interests of capital. Modern transportation has been introduced and industrial development has contributed to an enormous growth of city population. Farm products are sold in these cities for cash and their value is determined by distant or world markets with which the fallah has no personal contact and of which he has but little knowledge. The marketing of his products and
the purchasing of foods have given the fallah increasing contacts with the village and town centers and a broader knowledge of the world at large.

Other efforts are being made to improve public welfare and contribute to the progress of the country. The Iraqi Government has decided to spend about I.D. 20 million ($56 million) over 10 years in a scheme for Rural Development in the country. This scheme is part of the Agrarian Reform Plan. A special committee for developing and establishing villages has been formed. The villages have been categorized by size. Villages are designated as "Small" if they have 100 or fewer houses. "Large" villages will be those with more than 100 houses. In each of these villages a school, police station, dispensary, veterinary center and an agricultural extension service center shall be constructed. Also for each 1,000 families there will be a government center. The intention is to start this development in areas where Agrarian Reform has already been carried out.

Since most of the fallahin are illiterate, the initial emphasis will be on schools, about I.D. 6 million ($16.80 million) has been allocated for school building. Attention also is given for building hospitals and dispensaries in their villages (51, pp. 439-458).

The organization and operation of cooperatives for supplying electric power to individual farms and villages will
be a significant development for rural areas in Iraq. For this purpose the government of Iraq has established the Directorate of Services for rural areas. The duties of this Directorate include the supervision of the peasant's villages and rural regions which have no means of modern living. Among the important projects sponsored by this institution are those of providing water and electricity for the fallahin. These are very carefully and efficiently drawn-up projects to supply the peasants with pure water, and to furnish their homes with electricity. Iraq will be covered, in two years, with a network of electric lines to furnish power for planned heavy and light industry and to provide electricity to light thousands of homes and villages still using kerosene lanterns. This plan is expected to be completed in 1966 at a total cost of I.D. 56,200,000 which equals $157,360,000 (29). In a press conference Qassim, the late Prime Minister of Iraq, stated that:

The Ministry of Social Affairs has undertaken electric and water supply projects in the Nahiyas of Qaratu, Maidan, Jalawla and in Mundhiriyah villages. Three drinking water projects have actually been started in the Nahiyahs of Qaratu, Maidan and Kuljakhan. These projects will be opened this month (December 1959). Six more water and electric projects were started in Amara Liwa and will be completed this month (December 1959). We have seen to it that projects begin from frontier areas—in villages which have suffered bitterly from deprivation and destitution. Work is continuing on two projects for water and electricity in Basra Liwa. These will be completed later this month (December 1959). Water and electric projects have also been started in some villages in Diwaniya Liwa and in the village
of Nugrat As-Salman as well as in Safwan. These will be opened early in February of next year (1960). An electrical project has also been started in Barazan village and will be opened before March (1960). Preparatory studies are continuing for power and water projects in some villages of Mosul Liwa as well as for some villages in Ramadi Liwa. Some projects have actually been established. Work is continuing on the water and electric projects in Freshkhabur in Mosul Liwa. All these projects will be inaugurated well ahead of next July 14. (58, p. 106)

The Ministry of Social Affairs also has utilized its technical and financial capabilities to establish centers to provide certain social services to rural people. Examples of these social centers are those opened in Kadhimain and Qadha Al-Za'aem in 1960. The centers provide several social services such as adult education, vocational training, instruction in health and sanitation.

The housing situation in Iraq needs special attention. According to the housing census completed in 1956, about 79 per cent of all houses in Iraq were mud or reed huts (sarifa), tents or other inferior places of habitation. Only 29 per cent had running water and only 33 per cent had toilets. Only about 10 per cent had baths and 17 per cent had electricity.

Consequently, in the Development Plans, housing has been given an increasingly important role. From I.D. 6 million ($16.8 million) contemplated in 1955 under this heading, the allocation has been increased to I.D. 76,412,000 ($213.9 million) in the economic plan of 1959-63 (Law No. 181) for the
year 1959. Housing schemes have been initiated in all parts
of the country. They include houses for workers, houses for
state employees, experimental houses and designs for new
towns. The Directorate General of Housing allocated about
I.D. 31,958,989 ($89,485,169) for the construction of 13,972
houses up to April 1962. Of these 9,740 houses were completed
and distributed by that date (51, pp. 439-458).

Since July 14, 1958, the Directorate of Housing has com­
pleted nine projects in Baghdad, Mosul, Kirkuk, Basrah,
Suadiyah and Dibis. As reported by Prime Minister Qassim:

These projects cover some 5,701 families. The cost
in the year 1959 amounted to approximately I.D.
19,830,000 ($55,524,000). Presently there are 27
projects under construction in Baghdad, Sulaimaniyah,
Sarchinar, Kut, Amarah, Mosul, Karbala, Mussayeb,
Kirkuk, Nassiriyah, Ramadi, Arbil, Baquba, Diwayiyah,
and Salman Pak. These projects aim at providing
accommodation for 3,369 families at an overall cost
of approximately I.D. 11 million ($30.80 million).
Some of these projects are big while others are
small. Presently there are 21 more housing projects
to be announced involving a total cost of approxi­
mately I.D. 36,500,000 ($102.2 million). Funds for
these projects are available.

There are other building projects sponsored by the
Ministry of Housing. Of these 34 are under con­
struction and some completed. These projects in­
clude new hospitals, police posts, public squares,
water pipeline establishments, nutrition institu­
tions, scientific laboratories, law courts build­
ings, out-patient clinics, educational centers, ele­
mentary teachers' training institutes and industrial
institutes. We now have 12 projects whose alloca­
tions are fixed which are ready to be announced.
Further, we have 34 projects which will be announced
later. (89, p. 39)

Table 25 shows a summary of housing projects constructed
Table 25. Total number of houses under construction by the Directorate General up to January 4, 1962

<table>
<thead>
<tr>
<th>Projects for the years</th>
<th>Number of houses</th>
<th>Number of plots</th>
<th>Allocations I.D. (One I.D.=$2.80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1956</td>
<td>2,626</td>
<td>--</td>
<td>5219,000/000</td>
</tr>
<tr>
<td>1957</td>
<td>2,880</td>
<td>2,439</td>
<td>4514,000/000</td>
</tr>
<tr>
<td>1958</td>
<td>1,640</td>
<td>5,330</td>
<td>3959,999/000</td>
</tr>
<tr>
<td>1959</td>
<td>3,036</td>
<td>816</td>
<td>5242,881/212</td>
</tr>
<tr>
<td>1960</td>
<td>1,500</td>
<td>518</td>
<td>6606,104/975</td>
</tr>
<tr>
<td>1961</td>
<td>1,596</td>
<td>383</td>
<td>4818,318/193</td>
</tr>
<tr>
<td>1962</td>
<td>694</td>
<td>--</td>
<td>1598,685/052</td>
</tr>
<tr>
<td>Total</td>
<td>13,972</td>
<td>9,486</td>
<td>31958,989/432 (up to 1/4/62)</td>
</tr>
</tbody>
</table>

1. Number of houses completed and distributed in Iraq up to 1/4/62
   9,740 houses

2. Number of houses under implementation in Iraq up to 1/4/62
   4,232 houses

3. Total number of houses in Iraq up to 1/4/62
   13,972 houses

aData from (56).
by the Directorate General of Housing up to April 1962.

One of the most difficult problems facing the government of Iraq is the need to bring about social changes without undermining the stability and strength of the country. However, the community development offers one practical and promising approach by which Iraqi villagers themselves can help analyze the need for social changes and develop the means for achieving and accepting it. In this way the goal can be reached with a minimum disruption to life and yet with sufficient speed to meet changing circumstances and needs.

In Iraq the status of women and the situation pertaining to children, present special obstacles to progress. One important impact of the social centers to which women, contrary to tradition, are gradually being attracted is the opportunity to reach the adult women. These programs open channels for social changes which promise, in the long run, to contribute greatly to the progress of the country.

Changes in Political Conditions

It has been indicated earlier that the oligarchic character of government in Iraq was due to the power of the millakeen and the submissiveness of the farm population to their will. Agrarian reform measures will help to give political freedom to the fallahin and prepare the way for more democratic government. It appears now that statesmen who are in power
in the country have the sense of public responsibility for undertaking the many needed economic and social services in the interest of the population as a whole.

The fallahin population has discovered the causes of their misery, and palliative measures did not help to prevent the growing discontent from explosion. It was realized that agrarian reform with the supporting measures are, therefore, the necessary remedies for political stability and security. "Land redistribution from this standpoint is the most important single reform measure, because owner-cultivators have, on the whole, no interest in revolutions" (100).
CHAPTER VIII. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Iraq is primarily a rural country. Nearly 63 per cent of the population lives and works in agriculture. Obviously the welfare of such a large segment of the population is of major significance. But relatively little is being done to improve the lot of the fallahin. Although manufacturing industries of the country have developed rapidly and the levels of living of urban people have improved in recent times, the social and economic welfare of the Iraqi fallahin has not progressed at the same rate.

This study attempts to analyze and evaluate the Iraqi Agrarian Reform Law of 1958. More specifically, the objectives of the study are articulated as follows: (1) to identify for the purpose of analysis, the Law's objectives and to explore their interrelationship; (2) to evaluate the major provisions of the Law, in terms of the objectives, on the basis of their expected consequences; (3) to evaluate the expected effects of the Law on economic and social development of the country; (4) to suggest improvements in the Law on the basis of the preceding conceptual analysis; and (5) to suggest further research needed to analyze more adequately the provisions of the Law.

Because of the recent enactment of the Law and consequent scarcity of empirical evidence, the study is limited to the conceptual analysis phase. Consequently, the appraising state-
ments about the Law's nature and its expected results are
developed largely as hypotheses to be tested with appropriate
information yet to be obtained within Iraq.

Within the agricultural sector the fallah latifundium
tenure system, mentioned above, presented structural obstacles
to the development process. The resource inefficiencies of
low productivity of labor, due to widespread disguised unem-
ployment and scarcity of capital, and low productivity of land,
may be attributed to such causes as the uncertainty arising
from the conditions of the tenure system. Undersized land
holdings are considered one of the inefficiencies in Iraqi
agriculture. This is due to the fact that the average hold-
ing was too small to provide levels for the cultivator above
the subsistence norm. This in turn is the result of the
feudalistic tenure system that prevailed before the enactment
of the Agrarian Reform Law.

Previous attempted solutions, namely the Miri Land Set-
tlement Law, failed in overcoming the structural stagnation.
Its failure was attributed to the slow movement of the program
which resulted in its not being effective enough in removing
the defects from Iraq's agrarian structure. Consequently the
Agrarian Reform Law was enacted as an effort to improve the
country's human and natural resources and to avoid the mal-
utilization and misuse of resources which accompanied the old
system.
The methodology developed by Professor Tinbergen is thought to provide a useful framework in the examination of the agrarian reform program in Iraq, which is considered as a mean of economic policy. This framework has the advantage of providing a conceptual frame of reference within which: (1) different types of agrarian means may be distinguished; (2) the mutual compatibility and consistency of the objectives of agrarian reforms may be explicitly analyzed; and (3) the casual relationships between agrarian reforms, as means, and predetermined targets, such as economic growth, can be established by the model. In this context, the model would take the form of rough empirical input-output, cost-benefit types of relationships between agrarian means and policy goals. The last step requires both a theoretical knowledge of the impact of agrarian changes on economic development, efficiency, distributive justice or whatever the objectives of the agrarian reforms are; and some knowledge of the empirical relationships that prevail in a developing economy. The first two steps are essentially of a methodological and taxonomic nature.

Since empirical data are nonexistent, the model is not tested empirically. However, it serves as a framework of analysis in the investigation of the various objectives of the agrarian reform program in the country and the relationship between the agrarian means and the ends of economic and
social development.

It is found that three stages can be distinguished in the general transformation from an essentially stagnant agricultural economy to a well-integrated economy in which commercialized agriculture exists. In general, it is recognized that the agrarian means most appropriate to development are likely to be land reform in the stationary stage, structural changes in the take-off stage, and instrument variables in the commercialization stage.

The objectives of the Law can be synthesized from economic objectives (that may be separated into efficiency and growth), income distribution objectives (that can be performed through change in ownership of resources and the distribution of rewards from resources), and political objectives. Conceptually, the range of complementarity among these objectives is limited, particularly when the agricultural sector is viewed in isolation. When the possibility of integration with other economic sectors is introduced, that is the introduction of capital and consequently the decrease of labor force in agriculture, then the range of complementarity could be increased. The Law is attempting to achieve all three objectives through the establishment of a family farm (owner-cultivator) system. However, a certain degree of priority seems to have been assigned to the distributive and political objectives.
In discussing the agrarian reform program in Iraq, we have cited many statements to the effect that the family farm is the ideal to be achieved. Creation of family farms for fallahin or by the distribution of Miri (state) and public lands may satisfy the demand for social justice and temporarily control the agrarian unrest; however, this is not the final solution to the problem. The problem is the reduction of the density of the fallahin population who are depending on the land for their livelihood. This can only be attained by the diversification of the economy of the country, thereby providing new employment opportunities. To diversify the economy, capital is needed. Multiplication of subsistence family farms does not appear to contribute to capital formation.

The issue is whether to uphold the present agrarian reform policy of distributing the remaining land for the creation of family farms or whether to sell the land to able individuals who will use the land efficiently and produce the capital needed for the diversification of the national economy. The present policy, however, satisfies the need for distributive equality and is also politically expedient.

In terms of distributive equality, a family farm (owner-cultivator) system is to be appraised as a tenure alternative by the way in which the main struggles of interests are harmonized in land tenure status and functioning. These are
observed under the categories of compensation for labor and security.

In terms of compensation for labor, there does not seem to be a way of assuring the fallahin in Iraq equitable compensation as effective as vesting the fallah with ownership of the land. The bargaining power of the fallahin is very low with reference to mallakeen and the alternatives of the fallahin are very limited. In terms of security, the family farm (owner-cultivator) offers the fallah the assurance of full control over the use of the land and ownership. Consequently, the owner-cultivator has more security than an agricultural laborer or a tenant because of his greater property rights.

It is believed, on the basis of Iraq's conditions, that a priority in agrarian reform should be given to distributive equality and social justice. The competitive nature of the objectives of economic development will not allow the simultaneous achievement of the goals of equality, increased productivity, and higher rate of capital accumulation. Consequently a sacrifice in productivity and increased capital accumulation might be the choice of the policy maker in the short run. But, we may ask, has the government supported its land distribution and settlement program with supplementary activities on a sufficient scale to make the new agrarian structure successful? It is believed that the government does not
realize what the magnitude of this task is—how many technicians have to be trained, how much credit is required, how much government assistance is needed to build the social overhead capital and mobilize the forces released by the agrarian reform program.

No progress is possible without some difficulties, but in the long run we see no necessary conflict between the above mentioned three objectives. The agrarian reform program in Iraq is a key step in a chain reaction toward vastly improved life for the fallahin. Therefore, in the long run, we may not need to sacrifice anything, since "social justice and greater material well-being are partners in progress".

The consequences of the agrarian reform program in Iraq with reference to economic and social development can be reviewed according to the nature of changes effected. The most evident result is in the tenure system and, therefore, the status of the various classes of rural population. The change that has been taking place in the tenure system, since the enactment of the Law, consists of the elimination of the mallakeen (landlord) class by expropriation, and the raising of the status of the fallahin (peasants) and tenants to land owners.

By the end of 1964, the number of mallakeen whose excess land was expropriated was 1,621 persons. The total area expropriated amounted to 7,020,123 donums. As of the end of
1964, the land distribution covered 49 districts, in 313 villages, within 13 Provinces. The total area covered by the distribution amounted to 2,202,035 donums distributed among 38,766 fallahin families of whom 7,835 fallahin families are in the feudalistic Province of Mosul, who received 648,904 donums or an average of 83 donums per fallah. The average size of distributed lots ranged from about 6 donums in the irrigated fields of Basra to 111 donums in the rain-fed zone of Arbil. The overall average size of distributed lots for the country was about 52 donums. This land distribution has benefited 38,766 fallahin with 193,331 members, hence the second consequence of the Law which is reflected in this distribution of land and, therefore, distribution of income between the mallakeen and the fallahin. Such changes resulted from the agrarian reform provisions which broke down large estates into smaller lots and others which reduced rents and fixed annual installments or redistributed land at a low rate.

A third consequence that is for the betterment of tenancy conditions results from the land reform provisions enacted to increase security of tenure, and regulate the relationships between the landlord and his tenant. Another result of such provisions is the change in the inheritance practices to prevent undue subdivision and fragmentation of the land.

Still a fourth consequence, which results from the estab-
lishment of obligatory agricultural cooperative organizations, and the new owners to undertake some changes in farming practices and operations. Since the enactment of the Law, 173 new cooperative societies of different kinds have been registered. Adding this to the ones established prior to the Law, the number of cooperative societies existing at present appears to be 294.

Such a brief review of the problem on the basis of the changes affected may help provide understanding of the magnitude of the matter. The Agrarian Reform Law's provisions precluded changes in the peasants' attitudes, relations, and utilization of the land. These changes have introduced the basis for the norms in tenure, economic, and social relations. The Law gives the new owner-cultivator (the fallah) the opportunity to move up on the social and economic ladder as well as liberate him from economic and social reliance on the mallak (landlord). The fallah who acquires ownership of the land will manage and cultivate the land with the help of his family labor and will enjoy the full rewards of his efforts. Ownership of the land will encourage improvements on the farm. This is because the owner-cultivator reaps all the profits from any increased effort or investment he makes. Since ownership of the land stimulates the fallah to invest, it therefore tends to bring about a better combination of the factors of production than does the share-tenancy that he is
used to. Likewise, the owner-cultivator will have more interest in using the most productive agricultural technology that might bring him the most benefit for his efforts. As consequences of the provisions of the Law increasing incentives and abilities, the new owner-cultivator system of tenure will lead to more intensive cultivation and to a fuller use of the land; therefore, it offers more opportunities for employment. Also, the fallah may gain a feeling of security that greatly changes his attitudes toward his government and his role as a citizen.

Provisions of Chapter II of the Agrarian Reform Law (Article 31) require the new owners (fallahin) to belong to a cooperative organization. These cooperative societies may free the fallahin from hopeless indebtedness and charges of excessive interest rates. The cooperatives will obtain agricultural advances for members of the organization according to the needs of their lands as well as providing the fallahin with the requisites for the utilization of their lands, such as seeds, fertilizers, livestock, agricultural machinery, and means for storage and transportation of crops. These provisions will have noticeable changes in the economic and social status of the fallahin. Likewise, the transfer of agricultural income from the mallakeen to the fallahin may also have considerable effect on the social and economic progress of the peasants and their families as well as the
rural community as a whole. The purchasing power of the fallah will increase, and this will help meet his basic needs for food, clothing and shelter.

Other agrarian reform provisions that will have substantial social and economic effects on the rural population of the country include the adjustments of the landlord-tenant relationship which will affect far more people than the spectacular distribution of land. Crop-sharing rents have been reduced to about half the produce after all expenses have been deducted.

Concerning the rights of the agricultural laborers, the Agrarian Reform Law recommended that the wages of the agricultural workers in the different agricultural regions be fixed every year by a committee formed by the Minister of Agriculture. These provisions which are intended to improve the condition of the agricultural laborer will affect a large class of rural population who have no rights in the land. The economic and social conditions of these workers rest to a very large extent on the level of living of their employers.

Furthermore, the Law contained provisions against fragmentation of holdings. Such provisions are intended to preserve economically workable farm-units which permit rational farming. The main objective of these provisions is to establish holdings which give adequate employment and support to the cultivator and his family; at the same time it should
facilitate more advanced agricultural methods.

The agrarian reform program obviously has some shortcomings and disadvantages. For instance, the size of the farm unit granted may prove to be too small. The Law provided that the size of unit is not to exceed 60 donums (37.2 acres) of irrigated land or 120 donums (74.4 acres) of non-irrigated land and a minimum of 30 donums and 60 donums respectively. These sizes will likely prove to be inadequate particularly as mechanization occurs.

The productivity of land should be the main criterion in determining the size of land units. For example, since yields per acre in dryland farming are only one-third to one-fifth the yield in irrigated areas, the present difference in size of irrigated and non-irrigated allotment appears to be inadequate.

In the long run, the agrarian reform program will completely change the social framework of Iraq, and also alter the outlook for economic development, paving the way to a complete break from the restrictions imposed by the feudal conditions that existed in the past.

Hypotheses to Test in Future Study

The conceptual analysis performed in this dissertation leads, in addition to general recommendations mentioned in the previous paragraph, to a set of hypotheses concerning the
adequacy of the Law's provisions for attaining its objectives. Testing these hypotheses will be possible when empirical data of an appropriate nature become available. These hypotheses are:

(1) Different levels of productivity will characterize the resources employed in agriculture and those employed in other sectors of the Iraqi economy. This is supported by the high proportion of population that will remain engaged in agriculture after the reform. The amount of capital per worker will contribute to increase the divergency in productivity.

(2) After the establishment of the reform, different levels of resource productivity will characterize the agrarian liwas of Iraq. Relative differences in resource productivity among the liwas, which is not yet known empirically, should have been changed by the investments executed by the Law in the reformed liwas.

(3) The new farm units will not be at the point of optimum resource combination. With respect to the average fallahin's family size farm, increases in capital and land would increase total production and decrease total cost per unit, since the decrease in fixed costs per unit could be expected to be greater, within a certain range, than the increase in variable costs per unit.

(4) The fallahin's marginal propensity to consume will
increase with increments in per capita real income.

(5) Unemployment will be substantially reduced by the Law, but total unemployment or underemployment of a portion of the population will replace original disguised unemployment.

(6) Because of the reduction in rental payments and the possibility of a protected tenant forcing sale of the land which he cultivates, the mallakeen will be less inclined to make investments on land cultivated by protected tenants than that cultivated by ordinary tenants.

In order to examine the tentative hypotheses above or other relationships of interest that might arise from the conceptual analysis, more information is needed than is presently available. Two types of information are required: (1) basic, aggregative data that may be characterized as census-type data and (2) the more specialized information dealing with specific relationships which may be secured by more intensive studies employing sampling techniques.


109. Special Senate Committee to Study the Foreign Aid Program. The objective of U.S. economic assistance programs. Cambridge, Massachusetts. Center of International Studies at Massachusetts Institute of Technology. 1957.


I wish to express my sincere thanks and appreciation to Professor John F. Timmons who suggested the subject and supervised this study from its inception. Professor Timmons provided suggestions, criticism and time throughout the course of study. His guidance and encouragement were indispensable and his patience was inexhaustible. During my academic work at Iowa State University I found Dr. Timmons more than helpful, and from his ideas I learned a great deal. He has, by example, inspired me to appreciate the value of basic economic logic as it is applied in pursuit of solutions to problems in countries like mine.

I am grateful to Dr. Erik Thorbecke for his suggestions in the use of the Tinbergen policy model, and from his writings I distilled ideas for Chapters III and VII. My thankfulness and appreciation are also due to Dr. Arnold A. Paulsen who offered encouragement and understanding.

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<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASIMA</td>
<td>Area beyond Baghdad City's eastern dike</td>
</tr>
<tr>
<td>BEDOUINS</td>
<td>Nomads</td>
</tr>
<tr>
<td>DONUM</td>
<td>.62 acre</td>
</tr>
<tr>
<td>FALLAH</td>
<td>Peasant, farmer</td>
</tr>
<tr>
<td>FALAHIN</td>
<td>Peasants, farmers</td>
</tr>
<tr>
<td>GITAAS</td>
<td>Unit or farm</td>
</tr>
<tr>
<td>ID.</td>
<td>Iraqi Dinar = $2.80</td>
</tr>
<tr>
<td>ISTIHLAK</td>
<td>Tax on sale of agricultural commodities</td>
</tr>
<tr>
<td>LEBAN</td>
<td>Sour milk</td>
</tr>
<tr>
<td>LIWA</td>
<td>Province</td>
</tr>
<tr>
<td>MESHARA</td>
<td>Donum or .62 acre</td>
</tr>
<tr>
<td>MIRI SIRF</td>
<td>Lands owned by the government - Miri is from amiriyah, &quot;pertaining to the crown&quot;; Sirf mean &quot;pure&quot;.</td>
</tr>
<tr>
<td>MUGATAAS</td>
<td>Large estates</td>
</tr>
<tr>
<td>MULK</td>
<td>Freehold, private ownership</td>
</tr>
<tr>
<td>MUSHAA</td>
<td>Communal ownership</td>
</tr>
<tr>
<td>MUTUKA or MEWAT</td>
<td>Barren land, land reserved for public purposes</td>
</tr>
<tr>
<td>QADHA</td>
<td>An administrative district</td>
</tr>
<tr>
<td>RAGABA</td>
<td>Full legal ownership</td>
</tr>
<tr>
<td>SHADDAH</td>
<td>A group of eight peasants</td>
</tr>
<tr>
<td>SHEIK</td>
<td>Tribal chief; landlord</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>SIRKAL</td>
<td>Sub-tribal chief</td>
</tr>
<tr>
<td>TANDEIMATT</td>
<td>Classification of land</td>
</tr>
<tr>
<td>TAPU BUREAS (Taswiyah)</td>
<td>Land Registration Office</td>
</tr>
<tr>
<td>TASSARUF</td>
<td>Possession</td>
</tr>
<tr>
<td>WAKUF</td>
<td>Property or land in trust</td>
</tr>
</tbody>
</table>
APPENDIX B: THE AGRARIAN REFORM LAW OF 1958

IN THE NAME OF THE PEOPLE, the Council of State, after taking cognizance of the provisional constitution and upon the recommendation of the Premier and with the approval of the Council of Ministers, ratifies the following law:

CHAPTER I - On Limiting Agricultural Landholdings

Art. 1: The area of agricultural lands possessed by a person, registered for him in the land registry department (mufawwadatan lahu bi at-tabu), or granted to him by concession shall not exceed 1,000 dunums of land irrigated by free flow or by artificial means or 2,000 dunums of lands irrigated by rain. When lands of both categories are combined, each dunum of the first category shall be reckoned as equal to two dunums of the second category. Any contract in contravention of the provisions of this article, leading to an increase of the maximum prescribed limit, shall be considered invalid and cannot be approved for registration. Inherited Waqf (waqf dhurri) or joint Waqf (waqf mushtarak) of agricultural lands shall also be considered invalid if they are in favor of the holder of agricultural land with an area equaling any of the two prescribed maximum limits.

The landowner shall retain the area of land he chooses, and the land shall continue to be his free and clear, registered in the land registry department or granted by concession until its category is verified.

Art. 2: Every person possessing agricultural land in excess of the maximum prescribed in Art. 1, shall submit a full statement about his lands to the higher organization for agricultural reform which will be formed in accordance with Art. 15 of this law. The higher organization shall publish in the Official Gazette the names of those whom it considers to be covered by the law, based on the statements submitted by them or investigations made in regard to information submitted about them. The higher organization shall issue instructions showing the date for the submission of the statement and the details it shall contain.

Art. 3: The following are exceptions to the provision of Art. 1:

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1One dunum = 0.618 of an acre.
1—With the approval of the higher organization of agrarian reform, companies and societies may possess agricultural land exceeding the maximum limit prescribed in Art. 1, if such lands had never been cultivated and if the carrying out of the aims of the company or the society shall lead to an increase in the area of cultivated land or the development of the national economy.

2—A creditor shall have the right to possess more than the maximum prescribed limit of agricultural lands if the excess is due to a foreclosure on a debtor or to a public auction in favor of the creditor.

3—Individuals may have acquired agricultural land exceeding the maximum limit prescribed by law if the excess is due to a will, inheritance, or grant. The government shall then seize the areas in excess as in the previous two paragraphs, in return for the compensation provided for in Art. 6.

Art. 4: During the five years following the effective date of this law, the government shall seize holdings in excess of the maximum prescribed limit as defined in Art. 1. The seizure shall begin with the largest agricultural landholdings whether they belong to an individual or a family. The landholder shall retain the crop growing on the land and fruits until the end of the agricultural season during which seizure took place. The proprietor shall continue to exploit the entire agricultural land properly and over an area not less than the area he used to cultivate before the issuance of the law. He shall do this until such time as complete seizure of the excess land is effected.

Art. 5: The following shall not be taken into consideration in the application of the provisions of this law: A) transactions by the landholder creating real rights to parts of agricultural land in excess of the legally prescribed maximum limit, the dates of which were not confirmed before July 14, 1958. This shall not, however, prejudice the right of the person in whose favor the transaction is carried out, to have recourse to the person making the transaction for a monetary settlement of his right.

B) After the enforcement of this law, the division of agricultural lands belonging to one person, as a result of will, inheritance, grant or Waqf. In this case, the government shall seize those agricultural lands in excess of the maximum allowed the person leaving the will, or the inheritance, or the one making the grant or Waqf, in accordance with Art. 1 of this law.
Art. 6: A person whose land is seized by the state in conformity with the provisions of Art. 1 shall be entitled to compensation equivalent to the price of similar land, less the value of the government's right in the land registered in the land registry or granted by concession, in accordance with the proportions defined by law No. 61 for 1956 regarding the sale and correction of categories of government lands, or law No. 40 for 1952 regarding the settlement of disputes over the lands of al-muntifiq, or other laws. To this compensation shall be added compensation for immovable property and existing trees on the seized land as well as the value of pumps, machinery, and tools used in exploiting the land, which the government may elect to seize.

In the case of lands registered with the land registry or granted by concession, if the land is owned by one person and the right of exploitation is owned by another, then the landowner shall be entitled to two-thirds of the compensation and the exploiter shall be entitled to one-third, unless there is any other legal stipulation or agreement between the landowner and the holder of the right of exploitation or usage, in which case these shall be binding.

In the case of orchards, the landowner shall be entitled to a share of the compensation proportional to the division of the land and the trees between the landowner and the farmhand (at-taab) or the planter (al-mugharis) in accordance with an official deed or agreement or local usage. The farmhand or planter shall retain his share of the land or trees, as long as this does not exceed the legally prescribed maximum. The owner of the seized land may offer to the higher organization for agrarian reform in writing the seizure of what remains for him of the land. In this case, the principles of seizure and compensation and distribution defined in this law shall be applied.

The regulations shall define the steps to be followed in the payment of compensation. The government shall be considered to have fulfilled its responsibilities toward all by paying compensation in accordance with the said measures.

Art. 7: The compensation referred to in the previous article shall be reckoned by estimate committees to be formed by a decreee promulgated at the request of the Minister of Agriculture. These shall consist of a judge as president and a director of land registry as member, both to be appointed in agreement with the Minister of Justice, and a property official to be appointed in agreement with the Minister of Finance, and an agricultural official of a grade not lower than that of an
economic assistant.

The higher organization of agrarian reform shall issue instructions regarding conditions and measures governing the appraisal of agricultural lands and immovable property and trees, and the value of those pumps, machinery, and agricultural tools used for the exploitation of the land which the government decides to seize.

Art. 8: Compensation shall be paid in government bonds bearing three percent interest and redeemable within a period not exceeding 20 years. These bonds shall be nominative and can only be disposed of to those having Iraqi nationality. An ordinance shall be promulgated fixing the dates and the terms of redemption and circulation of these bonds.

Art. 9: If the land seized by the government is under a mortgage, concession or any other lien, the government shall pay the landowner only the value of the land less the debt. If the debt exceeds the compensation, then nothing shall be paid to the landowner, and the government may take over the role of debtor in a sum not exceeding the sum of compensation, or it may pay this debt with government bonds paying an interest equal to the debt's interest. These bonds must be redeemed within a period not exceeding 20 years.

If the debt bears an interest of more than three percent, the government shall bear the increase of the interest. The creditors shall take the measures defined by the ordinance to be promulgated in accordance with the law, otherwise the government shall be free from all liability toward them within the limit of the compensation paid.

Art. 10: The areas seized in each area defined by the higher organization for agrarian reform—in case of extreme necessity or for the sake of better exploitation the areas seized may be joined together by seizing the land separating them or adjoining them and allotting the owners of these lands other lands in the same area, or giving them monetary compensation, if they so wish.

Art. 11: The lands seized and the purely governmental lands, and the unbound lands (aradi mahlulah) fixed by the higher organization for agrarian reform as needed for distribution, or as being complementary to lands seized in any area, shall be distributed. Distribution shall be conducted so as to provide each recipient with a holding of not less than 30 dunums and not more than 60 dunums of the lands irrigated by free flow or by artificial means, and not less than 60 dunums and not exceeding 120 dunums of lands irrigated by rain,
added an annual interest of three percent, plus 20 percent of
the compensation to defray the expenses of distribution and
administration. The total of the sums mentioned above shall
be paid off in equal installments within a period of 20 years.

Art. 15: The government shall be represented by a body to be
known as the higher organization for agrarian reform in the
seizure of lands, and in the distribution and administration
of the lands seized. It shall have also the right to super­
vise and guide the agrarian reform cooperative societies with­
in the framework of the law. It shall be attached to the
Office of the Premier.

The organization shall consist of the Premier as president,
and the Ministers of Agriculture, Interior, Finance, Social
Affairs, Development, and Economy as members provided that
they should not exceed five in number. They will be appointed
by a decree promulgated at the request of the Cabinet. They
should include one senior legal authority and two agricultural
experts.

Art. 16: The higher organization for agrarian reform is an
artificial personality enjoying financial and administrative
independence. It shall have a separate budget providing for
its income and expenditure. This will be attached to the gen­
eral state budget. Its accounts shall be subject to the audit
and control of the general auditor.

The organization may fix in its budget the sums of money needed
to raise agricultural production and to contribute to the
projects conducted by the ministries and bodies for improving
the conditions of farmers and peasants, and raising their
social, health, economic, and other standards.

The higher organization shall lay down the instructions deal­
ing with the financial and administrative accounts, and the
appointment of officials and employees, their promotion and
control, and the gratuities granted to them or to the other
officials assigned to it.

The Minister of Agriculture is the minister authorized by the
higher organization to execute its decisions and supervise the
work of land seizure and the administration and distribution
of such land in accordance with the regulations. He shall
preside over the organization's meetings in the absence of the
president.
Art. 17: In the furtherance of its work, the higher organization has the right to enter into contracts, ask for loans, and accept grants and contributions. The Minister of Finance may provide the organization with the advances (sulfah) it asks for and guarantee its loans (qurudh).

Art. 18: The higher organization for agrarian reform shall issue the necessary interpretations for the provisions of this law. These interpretations shall be considered binding legal interpretations and shall be published in the Official Gazette.

Art. 19: A decree shall be promulgated at the request of the Minister of Agriculture for the formation of subcommittees to seize and delimit the seized lands and if necessary to combine and distribute them among the smallholders, and to examine the cases of exception under Art. 3 of the law and the separation of the government's share in the case of common funds.

The higher organization for agrarian reform shall issue special regulations defining the powers of these subcommittees, determining the measures and formalities to be taken in seizure and distribution operations, assessing the government's share in the case of common funds, and fixing the measures to be taken during the transitional period between seizure and distribution.

Art. 20: The decisions of the seizure committees, estimate committees, and distribution committees shall be published in the Official Gazette. The persons concerned can, within 30 days of the publication of these resolutions, appeal these decisions to the judicial committee provided for in the following article.

Art. 21: A decree promulgated at the request of the Minister of Justice shall be issued regarding the formation of one or more judicial committees consisting of two judges of the second grade at least, a land registry representative, a representative of the Ministry of Finance of no lower rank than director to be nominated by the Minister of Finance, and a representative of the higher organization to be nominated by it. The presidency of the judicial committee shall go to the judge with the longest service.

In the case of disputes, the judicial committee shall investigate the real estate statements and debts, shall verify the ownership of lands seized, and shall issue decisions on the objections lodged by the persons concerned against the decisions of the seizure, estimate and distribution committees.
The measures to be followed in the presentation of cases before the committee, the issuing of judgment, and the transmission of its decisions to the higher organization shall be defined by ordinance.

Art. 22: The courts, settlement courts, and private courts formed in accordance with law No. 24 of 1938 for the assessment of land rights shall refrain from considering cases of dispute. Settlement of disputes comes within the jurisdiction of the judicial committees. The courts shall refer to these committees all cases submitted to them concerning areas of agricultural land in excess of 1,000 dunums of lands irrigated by free flow or by artificial means, and 2,000 dunums of land irrigated by rain, as well as cases regarding persons whose names are published in conformity with Art. 2 of this law.

The judicial committees shall have the right to withdraw from the courts and the aforementioned settlement committees all cases dealing with lands belonging to persons covered by the provisions of this law which they feel would be better considered by the judicial committees. The regulations shall define the measures and dates related to referring cases to the judicial committees.

Art. 23: The decisions of the seizure, estimation, or distribution committees against which no objection is made within the prescribed time, and the decisions of the judicial committees, shall not be final until they have been ratified by the higher organization for agrarian reform. When these decisions are submitted, the higher organization for agrarian reform may ratify, amend, or cancel them and then issue a decision regarding them. The organization's decision in this case shall be considered final for the settlement of all disputes affecting ownership title, real rights, estimation, correctness of seizure, or distribution measures.

The higher organization for agrarian reform may delegate some of its power, as contained in this article, to committees formed by it, provided that such committees shall be presided over by one of the organization's members. Requests submitted for cancellation and stay of implementation of these decisions shall not be accepted for consideration by any judicial authority.

Art. 24: The government shall be considered owner of the land seized by virtue of the final seizure decision, reckoned as of the date of the first seizure decision. The land and all its accretions shall become free from all real rights.
Art. 25: Distribution of seized lands shall be completed within a period not exceeding the next five agricultural years as of the date of enforcement of this law, in accordance with a plan prepared by the higher organization for agrarian reform.

Art. 26: The land shall be handed over to smallholders free of debts and tenant's rights and shall be registered in their names as purely owned land, without any change. The person to whom the land is given shall cultivate it and give it the necessary care and attention. If he is remiss in any of the obligations provided for in the previous sentence, or if he obstructs the performance of the work of the cooperative society as provided for in Art. 32, or if he is remiss in any other vital obligation provided for by law or contract, the matter shall be investigated by an investigative committee to be formed by a decree promulgated at the request of the Minister of Agriculture consisting of a judge nominated by the Minister of Justice as president of the committee, and two directors of agrarian reform.

After hearing the views of the persons concerned, this committee shall issue a decision abolishing the decision distributing land to him, shall order the land retrieved from him, and shall consider him as a tenant as of the date he acquired the land, provided that this takes place within five years of the date he acquired the land. This decision shall be transmitted to him through administrative channels at least 15 days before it is submitted to the higher organization. The decision shall not become final until it is approved by the higher organization, which will have the right to amend it or abolish it. The money he spent on the land shall be considered in return for the rent due for the past period. The organization's decision shall be carried out by administrative procedure, and no request for abolition of, stay of, or compensation for it shall be considered by any judicial authority.

Art. 27: Neither the person receiving distributed land nor his heirs shall transfer its title of ownership or create any real right to it, except to those who fulfill the conditions of distribution as provided for by Art. 12 and only after the land price is paid in full, and five years have elapsed since it was acquired. Before this, ownership of the land cannot be expropriated in settlement of a debt unless it is a debt to the government, the agricultural cooperative society, or the agricultural bank.
Art. 28: All agricultural lands granted by tabu\(^1\) or by luzma rights, which are exposed to seizure, will be considered reverted lands and shall become purely miri\(^2\) lands if the owner is proved to have failed to cultivate them himself or through others for three years preceding enforcement of this law, or to have left them uncultivated for a period of one year or more after enforcement of this law without any legitimate excuse. The seizure committee shall investigate the reasons for the failure to cultivate these lands, and shall determine their reversion.

Art. 29: a) Law No. 53 for 1955 regarding the distribution of lands in Al-Amarah and law No. 40 for 1952 regarding the settlement of disputes over miri lands granted by tabu in Al-Muntifiq shall be abolished. The decisions issued in conformity with these two laws shall also be abolished, with the exception of those decisions which have become final decisions.

b) The following provisions shall apply to agricultural lands granted by tabu in An-Nasiriyah:

I—If the holder of the title deed does not actually possess the land and if he does not enjoy the rights of ownership, he will be compensated at the rate of 7 percent of the land's value, and the land shall become purely miri land, liable for distribution.

II—If the holder of the title deed does not actually possess the land and if he enjoys the right of ownership alone, he shall be entitled to the compensation provided for in this law and all the land shall become purely miri land, liable for distribution.

III—If the holder of the title deed actually possesses the land, he shall be governed by Art. 1 of this law and shall be entitled to compensation for the areas of land in excess of the maximum prescribed limit.

Art. 30: Any person shall be liable to imprisonment not exceeding one year or to a fine of no less than 100 dinars, or to both penalties, in addition to the possibility of confiscating a sum equal to the price of the land due for seizure in whole or part:

\(^1\)tabu—Land Registry Department.

\(^2\)miri—government-owned.
a) Who commits any action to obstruct the enforcement of the provisions of Art. 1 of this law, such as failing to submit statement detailed in Art. 2, or submitting incomplete details, or submitting false information while aware of this.

b) Who owns land subject to seizure and intentionally impairs its productive capacity, or destroys its accretions with the intention of barring the complete use of it at the time of seizure.

c) Who fails, without legitimate excuse, to cultivate the land under seizure, in contravention to the last paragraph of Art. 4.

CHAPTER II - Agricultural Cooperative Societies

Art. 31: An agricultural cooperative society shall, by force of the law, be constituted from among the farmers who have taken over seized land in each area. The society may include in its membership those who own lands in the area not exceeding the maximum prescribed limit of distribution. A single cooperative society may be formed to serve more than one area by an order of the higher organization for agrarian reform. The cooperative society shall be subject to the provisions of law No. 27 of 1944, provided they are not inconsistent with the provisions of this law.

Art. 32: Cooperative societies shall perform the following functions:

a) Obtain agricultural advances for members of the society according to the needs of their lands.

b) Provide the farmers the necessary requisites for the exploitation of their lands, such as seeds, fertilizers, cattle, agricultural machinery, and means for storage and transportation of crops.

c) Organize the cultivation and exploitation of the land in the most efficient manner, including selection of seeds and grading of crops, fighting agricultural pests, and digging canals and drains.

d) Sell the principal crops on behalf of their members, deducting installments on land, government taxes, agricultural advances, and other debts from the price of the crops.

e) Render all other agricultural and social services required by the members.
Art. 33: Agricultural cooperative societies shall discharge their duties under the supervision of an official selected by the Minister of Agriculture. This official may supervise the activities of more than one cooperative society.

Art. 34: Agricultural cooperative societies shall participate in the formation of general cooperative societies and cooperative federations in conformity with the provisions of law No. 27 of 1944 concerning cooperative societies.

Art. 35: The higher organization for agrarian reform shall issue the necessary decree to regulate the work of the aforementioned cooperative societies in accordance with the preceding provisions.

CHAPTER III - On the Organization of Agricultural Relationship

Art. 36: As of the beginning of the agricultural season following the enforcement of this law, the relations between the landowner, the sharecropper, and the farm laborer shall be regulated in accordance with the provisions of the following article.

Art. 37: a) The agricultural relations in existence at the time of enforcement of this law shall continue for three agricultural years beginning with the next agricultural season, unless the period of relations agreed upon originally is longer than this. The farm laborer shall not be expelled from the land against his will. Irrigation shall not be hindered or lifted during this period, except when he is remiss concerning a vital obligation provided for by law, contract, or usage.

b) The period of agricultural relationship agreed upon in the future between the landowner and the farm worker, as well as the owner of the means of irrigation, shall not be less than three years. This period shall be completed if agreement was made for a shorter period.

Art. 38: An exception to the provisions of the previous article—the higher organization for agrarian reform shall always have the right to abolish contracts concerning agriculture in the lands distributed, and to evacuate the possessors from these lands if the distribution requirements demand this, or if the farmer violates a vital obligation provided for by law, contract, or usage. The organization's decision in this respect shall be considered final and shall be carried out in accordance with administrative procedures. No applications for its abolition or stay shall be accepted for consideration before any judicial authority.
Art. 39: a) In regard to agricultural relationship in existence at the enforcement of this law, the landowner shall be obliged to provide the farm laborer on the land:

I—With arable land, and enable him to exploit in accordance with purposes agreed upon between them.

II—With irrigation water reaching to the borders of the farm if the land is irrigated by free flow or pumped water, and by other means if the land is irrigated by artificial means, if there is no third party to provide them in his place.

b) The farm laborer shall undertake to carry out the following duties:

I—Protection of the land by the best agricultural methods for each crop, if the landowner or the pumpowner are not in possession of mechanical means to discharge this task.

II—Reaping, collection, and transportation of agricultural crops to the threshing floors, and threshing and preparation of the crops for exploitation and marketing, if the landowner or pumpowner do not have the mechanical means to do this task.

III—All agricultural work demanded by agricultural production from seeding to reaping, and in particular preparation of the soil after plowing, seeding, use of fertilizers, distribution of water inside the farm, cleaning of internal canals and drains, removal of all weeds and other foreign materials, and manual combating of agricultural pests.

c) Agreement may be concluded for the transfer of some of the obligations from one of the parties concerned to the other party, or for joint undertaking of the obligations.

Art. 40: The landowner shall be responsible for managing the land in the areas irrigated by free flow or by artificial means, if the means belong to him. The management of the land shall belong to the owner of the pump or artificial means if they do not belong to the landowner. The landowner shall be responsible for the management of lands irrigated by rain. In all cases, agreement may be reached for the others to acquire the right of management in any of the above three categories.

The person responsible for management shall advance money needed by the farm laborer for the land, until the end of the season, within a moderate sum to be agreed upon by the two parties, if the farm laborer is not the person responsible for the management. The person responsible shall also organ-
ize and provide all protection for crops on the farm, as well as all other functions considered by usages as part of the manager's tasks, including the work of agents and supervisors and services or contracts with governmental departments.

The person responsible for management shall also provide all seeds, if the farm laborer (approves?) this. This shall be considered as an advance to be redeemed from the crop in kind and amount from the farm laborer's share. The payment may be postponed to a later crop if the crop is spoiled as a result of acts beyond the control of the parties concerned.

The person responsible for management shall also provide chemical fertilizers, insecticides, and weedkillers, the cost of which shall be paid by the parties concerned in proportion to their shares.

Art. 41: In regard to field crops and vegetables, crop distribution shall be as follows:

Land--10 percent for lands irrigated by free flow, 10 percent for lands irrigated by artificial means, and 10 percent for lands irrigated by rain.

Water--10 percent for watering in lands irrigated by free flow and 20 percent for watering in lands irrigated by artificial means.

Laborer's work and seeds--50 percent in lands irrigated by free flow, 40 percent in lands irrigated by artificial means, and 50 percent in lands irrigated by rain.

Protection--7.5 percent in lands irrigated by free flow, 7.5 percent in lands irrigated by artificial means, and 12.5 percent in land irrigated by rain.

Reaping or collection--12.5 percent in lands irrigated by free flow, 12.5 percent in lands irrigated by artificial means, and 17.5 percent in lands irrigated by rain.

Management--10 percent in land irrigated by free flow, 10 percent in lands irrigated by artificial means, and 10 percent in lands irrigated by rain.

The higher organization for agrarian reform shall have the right to change or amend these categories and the proportions due them from the yield in accordance with the various areas, by an order issued at the beginning of the agricultural season to be published in the Official Gazette.
Agreement may be reached on a share for the farm laborer exceeding the share provided by this article. Anyone providing any of the preceding production elements shall get the rate fixed for that element. If the person originally responsible failed to carry out his obligations, then the person responsible for management shall discharge it on his behalf, and if this also fails, then the landowner shall discharge the task, provided that he shall be entitled to the rate fixed for this from the yield.

Art. 42: Provisions of the preceding article shall not be applicable to land planted with trees and palm trees, provided that there are not less than 40 trees in every dunum.

Art. 43: The agricultural relationship contract shall be fixed in writing, no matter what the value is. There shall be copies of the contract for each of the parties concerned. Every contravention of the provisions of the contract or the provisions of this law may be proved by all possible methods.

Art. 44: The relationship between the actual owner of the land or his agent and its actual farmer shall not be other than a direct relationship and no mediations shall be allowed in respect to this relationship.

Art. 45: A committee to be known as the committee for the settlement of agricultural relationships shall be constituted in every subdistrict where a magistrate court exists. The committee shall be constituted by a decree promulgated at the request of the Minister of Justice and shall consist of a judge and a representative of the higher organization of agrarian reform nominated by the Minister of Agriculture, and a representative of the Ministry of Interior nominated by its minister.

The committee shall be concerned with the settlement of disputes relating to the provisions of Art. 37 and its decisions shall be final not affecting the basis of the dispute and liable to no criticism. Its decisions shall be enforced by administrative means. These decisions shall not prejudice the right of any of the parties concerned in the dispute to refer to the special public courts for consideration of the subject of dispute and compensation. The terms of these committees and the procedure to be followed in submitting applications to them shall be defined by regulations.

Art. 46: The following shall be liable for imprisonment not exceeding six months and a fine not exceeding 200 dinars,1 or either of these two penalties:

1one dinar = $2.80.
a) Every party to an agricultural relationship who intentionally acquires shares exceeding the legally fixed shares.

b) Every party to an agricultural relationship who intentionally violates or fails to carry out his obligations regarding care of the land, or cultivates it in a manner causing deterioration of its productive capacity.

CHAPTER IV - On the Rights of the Agricultural Worker

Art. 47: The wages of the agricultural workers in the different agricultural districts shall be fixed every year by a committee formed by the Minister of Agriculture, presided over by one of the senior officials of the ministry, and consisting of four members chosen by the minister.

Two of these members shall represent the landowners and two shall represent the agricultural workers. No decision of this committee shall be effective until it is approved by the Minister of Agriculture. No agricultural worker shall be employed at a wage less than the wage fixed for him in every area in accordance with the preceding paragraph.

Art. 48: The agricultural workers may form unions to defend their common interests.

Art. 49: a) Upon enforcement of this law, distribution of lands in accordance with law No. 43 of 1951 for development and exploitation of miri lands shall be suspended until such time as a new law is enacted.

b) Law No. 28 for 1933 concerning the duties and rights of farmers and decree No. 1 for 1954 concerning division of crops between landowners and farmer shall be abolished. Laws, decrees, regulations, and other orders which are inconsistent with the provisions of this law shall also be abolished.

Art. 50: The Council of Ministers shall issue a regulation upon the request of the higher organization of agrarian reform, regulating the conditions and measures needed for implementation of this law.
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