



Agricultural Policy and Land Reform Co-operatives in Iraq

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Contents

Chapter One: The Role of the Military Governments and the Baath Regime in the Land Reforms and Co-operative Development of Iraq's Agriculture.....	1
Chapter Two: Government Investment Programs with Special Attention to the Agricultural Sector.....	30
Chapter Three: The Economic Concept of Co-operation and the Efficiency of Land Reform Co-operatives in Iraq.....	53
Chapter Four: The Historical Experience of Egypt, Iran and Russia in Agricultural Co-operatives.....	78
Chapter Five: The Credit Problem in Rural Iraq with Special Attention to the Role of the State-Owned Agricultural Bank in Financing Land Reform Co-operatives.....	113
Chapter Six: Problems of Marketing in Iraq with Special Attention to Marketing Through Land Reform Co-operatives.....	140
Chapter Seven: The Policy and the Problems of Mechanizing Iraqi Agriculture with Special Attention to the Promotion of Mechanization within Land Reform Co-operatives.....	162

Chapter One

The Role of the Military Governments and the Baath Regime in the Land Reforms and Co-operative Development in Iraq's Agriculture

This chapter is an attempt to assess some of the dimensions of the agrarian problem in Iraq since the 1958 coup and military rule and Baathist regime that followed. Special attention is devoted to the impact of the two Land Reform Acts of 1958 and 1970 on the growth of land reform co-operatives as well as their political role in hampering the growth of Iraq's agriculture.

Historical and Political Setting

The historical significance of ancient Mesopotamia, roughly coinciding with present day Iraq, as a major granary of the world is well known. With the growth of agriculture came population expansion and the rise of the earliest cities of the world, such as Emdu, Ur, Babylon and Nineveh as early as 6000 B.C. Mesopotamia tempted invaders from different nations. The Sumerians, Akkadians, Babylonians, Assyrians, Greeks, Romans, Persians, Arabs, Mongols, Turks and British followed one another in their conquest of the area and contributed in various degrees to the cultural complexity of Iraqi society (Harris, 1958). Compared to other countries in the Middle East, Iraq is a very heterogeneous society in terms of ethnic and religious origins. This plurality has been further compounded by strong in-group feelings within the different ethnic groups. The population can be divided into the following ethnic groups: Arabs, Kurds, Turkumans,

Shabaks, Satliyas, Assyrians, Lurs and Armenians. The majority are Arabs while the largest minority is the Kurds, who comprise about 20 percent of the total population.

The kingdom of Iraq was established under the British mandatory power in 1921, and became an independent state in 1932. The death of King Faisal the first monarch of Iraq, in 1933 witnessed the beginning of a long power struggle among politicians and army officers. The struggle for power eased after World War II, when Nuri Al-Said dominated the political scene in and was able to master the influence of the aristocracy of feudal landowners and rich urban families. An agreement was reached whereby, in exchange for the guarantee of loyalty to the government by the sheikhs for their tribesmen, the government assured the sheikhs that their interests would be respected.

In analyzing the political structure of mid-twentieth century Iraq, F.A. Qubain stated that:

“There is no responsible party system in Iraq. As in several Arab countries, there are, instead, political groupings, which revolve around personal leadership. As a result, generally speaking, each cabinet that came into power either materially changed or discarded the program of its predecessor and instituted its own.” (Qubain, 1958)

This changing of programs was not necessarily attributable to the “grouping of the persona leadership” alone, but possibly due to the fact that each party expended more time and energy to come to power than paying adequate attention to implementing social and economic reforms. This continual change of regimes during past decades and the people’s deep-rooted dissatisfaction with and inherent suspicion of the various regimes, have contributed to an even faster “turnover” of governments.

Although there was more than one organized political party in opposition to the ruling clique, these were usually not given the chance to come to power during the

monarchical era. The major political parties in Iraq were: The National Democratic Party, the Independence Party, the People's Party, the Democratic Party of Kurdistan, the Communist Party and the *National Socialist Baath Party*. The opposition, united in the National Front, was very active against the government during the 1950s and created a receptive environment for radical change. This development, together with the modernization of the army, the growing feeling of nationalization aroused by Jamal Abdul Nasir's regime in Egypt, and the influence of the intellectual, paved the way for a successful military coup d'état, which overturned the monarchy and the government on 14 July 1958. Following the coup, there followed a year of peace and contentment amongst most of the parties.

Abdel-Karim Kasim, the leader of the 1958 coup, formed a popular government comprising most of the political opposition parties. However, there soon emerged two separate factions in the country, the Communists and the Nationalists of which the Baathists formed the largest and most organized group. The conflict between these two groups arose mainly because the Baathists, as Nationalists, advocated unity with the United Arab Republic (consisting of Egypt and Syria – the latter also under Baathist party control), while the Communists opposed this union.

After an attempt on his life by the Baathists, Kasim had no choice but to toe the Communist line. Kasim had often claimed that he wished to serve only a national function without personally involving and indulging in ideologies. The Communists used this opportune political climate to gain a foothold in many of the country's organizations. Kasim, fully aware of this build-up, was forced to maintain a fine balance between the Communists and Baathists. The situation was so delicate that at one time there were two

separate military courts—one for Baathists and one for Communists. The court established for the Baathists was set up to try those who attempted to assassinate Kasim as well as those who participated in an unsuccessful military coup in Mosul in 1959. The court established for the Communists was set up to try those who were extremely violent in their attempt to resist this coup. Hence, the country was inevitably divided into pro- and anti-government camps. This conflict eventually led to the successful coup d'état led by the Baathist National Socialists in February 1963. In November 1963, however, Abdel Salam Arif, who had been chosen as President during the February 1963 coup, overthrew the Baathists. Finally, in July 1968, the National Socialist Baath Party returned to power and remained until April 2003 when the Coalition forces removed the regime.

Thus, despite Iraq's huge oil revenues and abundant natural resources, the result of all these political upheavals was to create an atmosphere unfavorable for achieving economic development or to the evolution of a civil society based on autonomous and democratic associations of labor, trade and industry as occurred gradually in the West in the transition from feudalism to capitalism (in both the latter's social democratic and *laisse faire* variations).

The Need for Agrarian Reform in Iraq

During the mid-twentieth century, several studies stressed the need for agrarian reform in many of the less- developed countries. A U.N. report concerning the concept of agrarian reforms stated that:

“Land reform is treated more broadly as equivalent to agrarian reform or agrarian institutional reform. It clearly includes changes in land tenure...but it also includes the establishment or strengthening of essential government, co-operative, or commercial agencies or services relating to agricultural credit, supply, marketing, extension, and research. So conceived, the ideal land reform program is an integrated program of measure, designed to eliminate obstacles to economic

and social development arising out of defects in the agrarian structure.” (U.N., 1962)

In Iraq, Professor A. Al-Nahi stressed that the problem of feudalism and tribalism needed a reformative land policy for the primary purpose of freeing the poor members of the rural and tribal community from the domination of the landlords. This policy implied a limit to land ownership followed by the redistribution of excess lands to the landless farmers along with some credit and educational assistance (Al-Nahi, 1955).

The shortcomings of the semi-feudal system that prevailed in Iraq before 1958 were advanced as a justification for the enactment of Land Reform Law No. 30 of 1958.

According to Doreen Warriner:

“Land reform is worth doing (in Iraq), even if it is not done with administrative efficiency, simply because redistribution of land can bring immediate improvements in the living standard. Reform need not wait on better farming; the agriculture of south Iraq is so primitive that there is no risk that a decline in production could follow a division of the big estates. There is no need to aim at perfection in equipping the farmers, or in the organization of services. If Iraq has to wait for land reform until the government can provide schools, it will wait too long. These good things can come, and will come, once ownership had been redistributed.” (Warriner, 1962).

The Objectives of the Agrarian Reform Law of 1958

The broad objectives of the agrarian reform were a more equitable distribution of the land in the interests of the landless farm people and the elimination of landlordism as a political and economic class. It was assumed that land expropriation and redistribution would result in improved agricultural production and provide the basis for the industrialization of Iraq. The objectives were to: limit the size of holdings; expropriate *the* land from the big landowners for redistribution among the farmers; transform all large estates into family units supported by agricultural co-operatives; expand agricultural

production; improve the living standard of the rural population; and provide food for the working classes and raw materials for industry (Kubba, 1959). The government was empowered to take over land holdings that exceeded 1000 Donums (one Donum equals 0.25 Hectare) of irrigated land or 2000 Donums of rain-fed lands. The land would be distributed in lots of 60 Donums irrigated land and 120 Donums rain-fed land.

An important provision set out the creation of agricultural co-operative organizations. The co-operative was charged with the efficient organization and exploitation of the land by supplying the farmers with seed, fertilizer, cattle, agricultural machinery, storage and means of transportation (Agrarian Reform Law No. 30 of 1958).

Implementation of the Agrarian Reform of 1958

The regime of 1958 experienced considerable difficulties in both its land expropriation and distribution efforts. Of the 10,628,273 Donums of land targeted for expropriation during 1958 to 1968, only 7,073,346 were actually expropriated. Of these, only 2,781,404 Donums or 39 percent were distributed (Iraq, Ministry of Agriculture & Agrarian Reform, 1968). Contributing to this slow progress was the lack of a comprehensive blueprint for guiding the implementation and a lack of information about the cultivable and non-cultivable land because of inadequate surveying, soil classification and mapping facilities.

The management and control of over 7 million Donums of expropriated (but-non-distributed land and more than 20 thousand tenants fell to the Directorate General of Temporary Management and Distribution. An additional problem surfaced when inefficient and inexperienced co-operative supervisors replaced the landlords and their skilled managers (Sirkals).

The Co-operative Movement during the Period Preceding the Land Reform of 1958

The co-operative movement is a recent development in Iraq that originated in 1944 after the implementation of the Co-operative Societies Law No. 27. Following the enactment of this law, a Department of Co-operation was created within the Ministry of Economics in order to supervise the movement. Prior to the passage of this law there had been three attempts by a few individuals to establish co-operatives. The founders had studied mostly in the west, and realizing the benefits that could accrue from co-operation, tried to put this idea into practice in Iraq.

The first co-operative society was organized early in 1937 by some of the agricultural officials of the government-owned Zafaraniyah experimental farm. This was primarily modeled on the Egyptian consumer co-operatives but was discontinued due to the political situation prevailing after 1941 coup.

The second society was formed in 1940 by a professor and some students at the Higher Teachers' Training College in Baghdad. This initiative proposed setting up a dairy farm, extracting chemicals from indigenous plants and processing, preserving and canning agricultural products. Despite initial progress, however, it encountered insuperable difficulties in importing the requisite machinery, equipment and materials due to the Second World War.

The third such society, named "The Consumer Co-operative Society for Government Officials and Employees" established in 1943 in Baghdad, restricted its membership to civil servants and government employees. Although this venture had at its

disposal initial subscriptions totaling 15,000 Iraqi Dinar (I.D.) and promoted enthusiastic expectations by its extravagant promises, it too was confronted with severe management problems and prohibitive rising costs engendered by the war, which ultimately led to its liquidation. During the period between 1944 and 1959, only 22 agricultural co-operatives were in existence, with 1,636 members and working capital of 4,601 I.D. (Iraq, Ministry of Planning, 1959). Coverage grew steadily after the 1958 Act so that by 1975, Land Reform co-operatives represented 90 percent of all agricultural co-operatives in Iraq, with 174,791 members farming an area of 12,046,994 Donums.

In addition, there existed co-operatives, which the Directorate of Agricultural Co-operation officially termed "Agricultural Co-operatives outside the Land Reform". At the end of 1975, 135 such co-operatives existed, with a membership of 5,903.

Agricultural Co-operatives after the Land Reform of 1958

Following the first Land Reform of 1958, several new laws were passed with the aim of superseding earlier legislative and institutional frameworks surrounding the co-operative movement. One such legislative action was the enactment of the Co-operative Societies Law no. 73 in 1959. According to official publications, this law was considered adequate to solve the problems caused by defects in the previous co-operative law of 1944 (Al-Alwan, 1961). However, the post-1958 official publications did not specify precisely which problems had arisen due to previous legislation. It is important to appreciate that the new regime was largely politically motivated in these critical assessments. Furthermore, judged in relation to the traditional principle of democratic control in co-operation, the ensuing period was characterized by pronounced government

interference, whereas previously some co-operatives had enjoyed relatively democratic management.

In 1958, a Directorate of Agricultural Co-operation (D.G.A.C.) was created. It was headed by a Director-General and was made responsible for the agricultural co-operative societies. Its primary functions were to:

1. Carry out preliminary enquiries and guide the establishment of co-operative societies in the agrarian reform region.
2. Prepare their by-laws.
3. Advise and guide the societies and their members in implementing the agricultural programs prepared by the specialized departments.
4. Help the societies obtain loans for their members and to market co-operatively their products, and to carry out any other functions beneficial to members.
5. Supervise the societies' activities and audit their accounts.
6. Ensure that the functions of the societies were carried out according to the co-operative societies and the agrarian reform laws, and their by-laws.

Types of Agricultural Co-operatives

Planners in Iraq opted to apply the multi-purpose model of agricultural co-operatives, with unlimited liability. This is clearly specified in Article 32 of the Land Reform Law, 1958, which stipulated that the co-operative society shall:

1. Obtain agricultural credit from the public credit institutions proportionate to the holdings of its members;
2. Supply the members with the necessary seeds, fertilizer, cattle, pumps, agricultural machinery and implements, storage and transportation facilities;

3. Regulate the cultivation of the land and facilitate its efficient utilization through the selection of seeds, the use of better crop varieties, the combating of agricultural pests and diseases, and the construction of irrigation canals and drains;
4. Sell the main crops of its members on condition that installments on the price of the distributed land, agricultural credit, and other debts be deducted from the price of the marketed crops; and
5. Perform any other agricultural and social services required by its members.

Although no official justification was given for choosing multi-purpose agricultural co-operatives, their adoption may have been based on views similar to those of K.H. Campbell, who wrote that in rural Asia and Africa the lack of qualified secretaries and experienced village co-operative leaders to manage the affairs of many specialized co-operatives made the multi-purpose co-operative preferable (Campbell, 1951). Moreover, the farmer has to raise less capital for his share contribution; instead of subscribing to several societies, he has to buy only one share in a multi-purpose society.

In reviewing the inclusion of unlimited liability in the regulations of the multi-purpose co-operatives it is necessary to distinguish between its effects on farmers already thoroughly acquainted with the principles of co-operation and the resultant benefits, and those who were unfamiliar with these. In the latter case, it may have sapped the enthusiasm of cooperators deterred by the high-risk factor in Iraq's traditional agriculture.

The Transitional Period and the Growth of the Land Reform Co-operatives

Slow growth of Land Reform co-operatives occurred during the period from 1958 to 1963 (D.G.A.C., 1976). This crucial time of implementing land reform was not take-up

with field studies to investigate preconditions for the establishment of co-operatives to supplement agrarian reform. Problems were encountered in training adequate professional staff for the co-operatives. Although a center for co-operative training was set up under the guidance of F.A.O./UN. Experts at the end of 1963, and training courses were organized for the supervisors and instructors of the co-operatives (Iraq, Ministry of Agriculture & Agrarian Reform, 1976), the number of trainees was very small compared to the number required for running the seven million Donums which were expropriated. Moreover, the problem of co-operative management was aggravated by such stopgap measures as the administration of temporary land titles.

Although some tenants received automatic membership in a co-operative, they lacked the incentive to actively participate in the co-operatives due to the temporary nature of their land titles. Their farms were hired from the Directorate General of Temporary Management, Ministry of Agriculture and Agrarian Reform. The number of non-participatory members was so great in some areas that several co-operatives closed down. For example, in 1968 there were 26 agricultural co-operatives in Kirkuk province, most of whose members were tenants. Only 15 co-operatives remained after the renewal of their land contracts.

In Aldura province, most of the tenants invested in the belief that they would be able to renew their contracts for many years but were then faced with the action taken by the Ministry of Agriculture and Agrarian Reform to redistribute their hired land to other farmers. Problems also created when the land area allocated to be hired by the farmers failed to correspond to the actual geographical area due to defects in the maps drawn by the surveyors. Such was the case in Al-Muzenya village (Al-Tameem province), where

tenants accepted contracts to hire 50 Donums, when the land was less than the specified area.

According to P.F. Phillip, writing at the time, there are three main elements required for establishing a successful co-operative:

“The general prerequisite for success is that members fully appreciate, accept and adhere to the principles of solidarity, common property, democratic management and a equitable apportionment of proceeds commensurate with their respective input. An “environmental climate” favorable to the successful development of agricultural co-operatives presupposes national, dynamic and secular ways of thinking, an acceptance of change within the community, and a high degree of homogeneity or at least compatibility of the cooperators. To cultivate the formation of such attitudes on the part of the cooperators, it is vital that the need for agricultural co-operatives not merely be an objectively existing one, but the members’ own felt need” (Phillip, 1966).

Since it would be utopian to expect such ideal circumstances to prevail in less-developed countries, introductory programs of familiarization with such fundamental aspects of co-operative organization should both precede and accompany the foundation of agricultural co-operatives and the recruitment of officials/managers and leaders who are sympathetic or at least not hostile to such principles are critical for eventual success of both the economic and social agenda of co-operatives. However, no such systematic familiarization program was promoted in Iraq due to extreme ideological conflict between the various political parties that retarded the formulation and creation of the co-operatives, particularly during the period 1958 to 1963. In addition, the agrarian reform planners regarded the Egyptian experience in co-operatives as authoritative and uncritically transplanted this model into the Iraqi framework. They neglected to appreciate the specific political and socio-economic differences involved. First, Egypt is more homogeneous society than Iraq, which provides a basis for positive participation. Second, the involvement of co-operatives in politics is relatively less in Egypt than in

Iraq as it has a political and social structure that is more politically stable. This allows the Egyptian co-operatives to concentrate on economic viability and good internal governance.

Government Allocation of Funds in Relation to the Growth of the Land Reform Co-operatives

The pace of growth was determined by the allocation of funds for setting up new co-operatives. Using the D.G.A.C.'s ability to spend these funds as the criterion for measuring the implementation process, it was observed that the funds actually spent were less than the funds allocated for this purpose, which affected the rate of implementation. Funds that had been earmarked for establishing new co-operatives were not disbursed by the successive military regimes that ruled after the 1958 coup.

The D.G.A.C. submitted to the Ministry of Agricultural and Agrarian Reform its own plan within the framework of the Economic Plan of 1961-65 for the set-up of 200 co-operatives. The cost of implementing this policy was estimated at 2.5 million Iraqi Dinars (I.D.= \$ 3.37 in 1978), The Ministry of Planning reduced that amount to 0.5 million I.D. without any explanation. The Ministry of Finance reduced it even further, allocating only 450,000 I.D (Iraq, Ministry of Agriculture and Agrarian Reform, 1974).

This indicated the differing objectives of the Planning and Finance agencies. As H.A. Hanson stated, "Finance thinks in terms of economy, planning in terms of development" (Hanson, 1960). Despite these cuts the D.G.A.C. found it difficult to spend the allocated funds (Iraq, Ministry of Agriculture and Agrarian Reform, 1970). Furthermore, while the planners suggested that each beneficiary of the Land Reform should join the co-operatives, a considerable number of beneficiaries did not join (Iraq, Ministry of Agriculture and Agrarian Reform, 1976).

Assessment of the Agrarian Reform of 1958

Effectiveness of Implementation

There was little time after the 1958 revolution to conduct adequate investigations into a suitable reorganization of land tenure arrangements to achieve rapid agricultural development. Decisions made during the 1958-1959 period about the Land Reform program were not motivated primarily by considerations of economic efficiency. Due to specific conditions of the 1958 coup, the main objective was to sap the economic and political foundations of the feudal system without permitting the emergence of any democratically based civil society structures, which might challenge the newly established military regime. An inept bureaucracy, unable to deal with the difficulties of land expropriation and distribution, further hampered the program. Hence, targeted numbers in these areas were still far from met one decade after implementation.

Agricultural Production

Although there is a lack of accurate statistics concerning agricultural production, what evidence there is, shows that there was a general trend downwards in the main agricultural crop production of wheat, barley, rice and cotton from 1958 to 1964. But an over-reliance on a comparison of the average main crop production in the relatively short periods immediately preceding and after the first Land Reform may lead to inaccurate conclusions.

Iraq's system of data compilation depended greatly on estimates since there was no comprehensive statistical coverage of the entire country. Moreover, Iraqi agriculture is extremely susceptible to variations in climatic conditions and such external factors can

considerably affect the averages of crop production. The two years following the first agrarian reform were marked by a drought that drastically reduced production.

Farmers' Standard of Living

Serious difficulties are incurred by adopting an index based on the farmers' living standards as a measure of the success of the Land Reform. There was no reliable data available on the living standards of the peasants before and after the implementation of the first agrarian reform.

The official statistics concerning the growth of the average income share of the rural family from agricultural income suggest an increase from I.D. 134-3 in 1953 to I.D. 261 in 1969 (Iraq, Ministry of Planning, 1970). These estimates cannot be taken as reliably significant because of the weakness of the arithmetic average as a representative statistical measure. Moreover, the estimates also ignore the differences in income resulting from various crops under cultivation. In addition, no clear distinction was made between those people working in the agricultural sector and those merely depending upon agriculture.

The average value of production (at constant prices) per rural family relying mainly on agriculture for its livelihood rose only slightly to 111.9 I.D. during the period 1964-1968, compared with 108 I.D. during the period 1953 to 1958. This implies that the average rate of increase over the whole period was about 1.1 percent per annum. However, this conclusion is subject to certain reservations. Besides the difficulty in measuring the benefits of government expenditure on free health and education services and subsidies reducing the price of seeds and fertilizers, the estimation of real consumption levels by the peasants presents special problems. The great majority of

farmers who subsisted under semi-feudal land tenure relations prior to the agrarian reform are now thought to have increased their consumption, especially since most of the land under cultivation was devoted to crops that could be consumed directly. On average, wheat and barley constitute most of the land cultivated annually. According to a survey conducted by a group of physicians in Iraq, the health standards of the majority of farmers had greatly improved over the period 1958-1962, reaching a higher level than that of the majority of unskilled workers (Demarchi, 1963). The literature covering the evaluation of Iraq's Land Reform of 1958 is not unanimous in its assessment. It is not inconceivable that the respective backgrounds of the authors have influenced their different assessments. D. Warriner argued that those who criticize the reform of 1958 as too revolutionary must remember that the landlord system that prevailed before the revolution of 1958 had only been established in 1932. A belief that change might have evolved gradually is unsubstantiated. Warriner then concluded:

“The reasons for the economic failure of the reform should not be oversimplified. To say that mistakes have been made, implying that those responsible took the wrong decisions, would be inept, for no one was responsible for long. The trouble lay much deeper: in conflicting political aims; technical obstacles; and the sheer magnitude of the administrative tasks, beyond the powers of an inexperienced bureaucracy...It would also be inept to believe that experts could have avoided failure; there have been plenty of experts offering contradictory and often inapplicable advice.” (Warriner, 1969).

No co-operative program claiming to be founded on a market-based business system can operate efficiently or ethically when overseen by a military regime or single party system, administering resources through a patron-client style of management using the state apparatus. To Professor P.M. Raup, however, the Iraqi Land Reform of 1958 represented a positive sociological achievement:

“Iraqi land reform stands as evidence of the high cost of postponed reform and unplanned implementation. Yet admitting the seriousness of production declines, it is wrong to condemn Iraqi reform on that evidence alone. Prior to the reform semi-feudal conditions prevailed. In economic and social dimensions (its) archaic land tenure institutions were among the most backward in the world...whatever else must be said against the land reform (Iraq has) effectively ended (one) of the world’s most neo-feudal oligarchies. This was no mean achievement” (Raup, 1967).

If the Land Reform of 1958 in Iraq did achieve its political objectives of eliminating the old feudal order, some might argue that the feudal patron-client system had been merely transferred to the military regime rather than having been eliminated altogether. The economic need of increasing Iraq’s agricultural productivity certainly was not realized by this reform.

The Second Agrarian Reform Law No. 117 of 1970: Its Justification and Objectives

In 1970, a second Agrarian Reform Law was enacted. No detailed justification was advanced in the law for this significant decision, particularly concerning the new drive towards collectivization. However, the Ministry of Agriculture & Agrarian Reform literature referred to the shortcomings of the last reform of 1958 in explaining the new law. First, the former law permitted too high a ceiling on individual ownership (i.e. 2000 Donums in rain-fed areas and 1000 Donums in irrigated areas) regardless of type of crop, soil fertility or precipitation. Second, inequity had resulted from the right given to existing landowners to choose which land they would be permitted to retain. Because they naturally selected the most fertile and best-watered land, only marginal land was released for re-distribution. Third, no Compensation provided to land owners for requisitioned land on the premise that the land originally belonged to the state (Iraq, Ministry of Agriculture and Agrarian Reform, Al-Nawfel et.al, 1972).

Thus, one of the main objectives of new law number 117 of 1970 was to reduce the ceilings for land holdings on the basis of soil fertility and water availability. The range of the ceilings was reduced to 1,000 to 2,000 Donums in the rain fed zone and 40 to 600 in the irrigated zone. Second, the right of the landowners to select their allocated areas was abolished. Third, the law withdrew compensation to the landlords on the ground that all lands had been owned by the state before being taken over by individuals and tribal leaders. Finally, the law enacted provisions to promote state and collective farming systems thus ensuring the total political control by the Baath regime of the so-called “co-operative system”.

The Influence of the Russian Experience in Collectivization on the Iraqi Land Reform of 1970

The irony of such a move was that it could be seen as an example of Russian influence at this period of heightened Cold War tensions when both superpowers overlooked ideological and real differences of social and political systems in their mutual rivalries to gain spheres of influence. Such superpower politics ensured that repressive regimes were pandered to rather than challenged by the one-party Soviet Union and liberal democracies alike. The Baath regime was thus able to gain access to American arms and some political support throughout the Cold War period particularly following the fall of the Shah of Iran.

Article No. 49 of 1972 issued by the Supreme Agricultural Committee described the ideological policy concerning the future land tenure system to be adopted in Iraq:

“The Baath party aims to create a socialist society in Iraq...a society based on co-operation between individuals...a society which rejects the capitalistic system with its reliance on private land ownership and other sources of production. The historical experience of the socialist countries

proves that abolishing private land ownership and replacing it with collectivization is of vital importance in insuring the success of socialism.” (Iraq, Ministry of Agriculture and Agrarian Reform, 1972).

Thus, by the end of 1973, some seventy-eight collective farms had been established in Iraq, with 10,543 members working on 576,392 Donums; in addition, six state farms covering 143,985 Donums had been created.

The emphasis placed on collectivization by the Land Reform of 1970 was indicative of the continuous confusion surrounding the adoption of a feasible agrarian policy in Iraq. This emphasis may have been a way to cultivate support from communist Russia. The law did not state whether collectivization was to be compulsory or voluntary.

Article 16, Section 2 of the Agrarian Reform law stated that, “the land shall be distributed collectively or individually according to the existing situation in the area.” However, at the Eighth Conference of the Baath Party an official statement was made that all co-operatives were potential collective farms (The Eighth Conference of the Socialist Baath Party, *Al-Thawra Al-Arabya*, 1974). Thus, any democratic association organized as a co-operative was available for effective nationalization.

Three practical economic and social aspects of the experience of communist countries are also relevant in this respect.

The Supply of Rural Manpower for Industrialization

The process of industrialization involves far-reaching demographic changes because manpower needs to be transferred from agriculture to industry. A significant example of this process of demographic change was the Soviet Union. In 1929, when a systematic process of industrialization was initiated with the First Five Year Plan, the

agricultural sector comprised about 80 percent of the total population. By 1966, this had decreased to less than 32 percent. However, it is difficult to assess to what extent this migration was facilitated by collectivization alone.

The agricultural sector may produce a push factor through the provision of low wages compared with those obtainable in industry. The mechanization of agriculture, coupled with more efficient farm organization also creates a surplus of farm labor. In Iraq, any migration of labor from agriculture to urban centers would have risked aggravating the existing, chronic unemployment. Such unemployment would appear to logically obviate the need for the immediate transfer of labor affected by collectivization. Moreover, continuous migration from agricultural to urban centers would have required considerable investment to integrate the influx of population into urban life.

Professor Edith Penrose, in commented on Iraq's policy of collectivization:

“The various kinds of large-scale organization of agriculture which the Iraqi government is attempting to create--whether they be state farms, collectives, or some reasonably centralized form of co-operatives, all tend to be capital intensive. Given the growing shortages of labor as industrialization proceeds in the urban areas, and the difficulties of holding workers on the land, together with desire to establish a state-run “socialist” agriculture, it might seem at first sight to be appropriate policy for the government to encourage highly mechanized capital-intensive agriculture. But this type of agriculture requires highly skilled workers—just the type of worker who tends to migrate to the city...Iraq may therefore in the near future find herself in an even more difficult position than at present: increasing food import; continued emphasis on industrialization; failure to keep independent farmers on the land because farmers will leave if they cannot have their own private land; and difficulties in attracting enough skilled workers against competition with industry for the capital-intensive agriculture with an unwelcome, and perhaps in some degree irreversible, deterioration in agriculture.” (Penrose, 1978).

The historical experience of the West and Japan indicates that mechanization of agriculture can proceed successfully without the creation of large-scale farms if allowed

to evolve more gradually. Thus, with the process of mechanization adjusted to the needs of small-scale farms practicing co-operation, a high degree of mechanization in agricultural production on medium and small farms can be achieved (Schiller, 1971).

The Contribution of Agriculture to Capital Formation

The Soviet Union represented another significant example for successful capital accumulation through the contribution of agriculture. Compulsory restrictions imposed on consumption in the collectivized sector created the required agricultural surplus. For capital formation to occur, saving is a necessary prerequisite. However, such a saving, especially in the case of most less -developed countries implies a restriction on consumption, which is already at the subsistence level. In Iraq, the availability of huge oil revenues at the time could eliminate the need for such austerity measure. Indeed, it arguably made the need for raising capital from agricultural surpluses unnecessary. Even assuming that Iraq followed the pattern of limiting farmers' consumption, the projected surplus would be hopelessly inadequate for accumulating the investment fund necessary for development. The size of the agricultural surplus available for transfer to the industrial sector would be further reduced if collectivization increased the cost of agricultural production. The case for seeing collectivization as politically rather than economically motivated is therefore overwhelming.

The Relationship of the Agrarian Reform Co-operatives to Collectivization in Iraq

Although it is not the intention of this study to criticize the collective farm system, it is not feasible to suppose that this system would have been generally effective through the whole country. The change of policy favoring collectivization may have served to exacerbate the problem of low productivity. The majority of farmers equated

collectivization with confiscation at a time when they become accustomed to land ownership and its accompanying incentive to increase production.

Despite the fact that collectivized farming was relatively new to Iraq, thus making it difficult to evaluate its effectiveness, a study concerning the state farms in Iraq, undertaken by Ministry of Planning revealed that:

“The state farms failed to achieve an increase in the productivity of the main crops; it was found that the cost per Donum of the cultivated crops on these farms is more than the ones cultivated on the small family farms” (Iraq, Ministry of Planning, 1974).

A further study on the collective farms conducted by the Ministry of Agriculture and Agrarian Reform indicated continual financial losses since they were established (Iraq, Ministry of Agriculture & Agrarian Reform, 1974). The government, burdened with debts from the Iran Iraq war (1980-1990), was in no position to maintain these losses. In 1987, another shift of policy was adopted when the government declared a privatization policy and followed this up by selling or leasing state farms to the private sector.

An Assessment of the Second Land Reform of 1970

Effectiveness of Implementation

By 1974 the government of the new regime (following the 1968 coup) completed the task of expropriating all the land targeted by the Land Reform of 1958. Although this regime distributed 3,285,136 Donums to the landless farmers by 1974, bringing the total to 5.8 million Donums (since 1958), 4,400,000 million Donums or 44 percent of the land expropriated still remained under the temporary management of the Ministry of Agriculture and Agrarian Reform. The latter was cultivated by farmers who had little incentive to invest in the land since they were bound by annual contracts only.

Agricultural Production

Between 1970 and 1975, 366,000,000 I.D. were allocated with the goal of increasing agricultural productivity. According to official publications, production of the main crops increased considerably between 1970 and 1973. Because considerable confusion surrounded the method of statistical complication, these figures need to be approached with caution.

According to E. Penrose:

“If the figures given for the years 1970-71 and 1971-72 in the 1973, Abstract of Statistics for the cultivated area are checked with the figures in the 1975 Abstract, it appears that the former in fact refer to the harvested area only. The 1975 Abstract presents figures for the ‘gross cultivated area’ and the ‘net harvested area’ separately, but reported yields are based on the harvested area. Since this is often very much less than the cultivated area, it probably explains some of the increase in yields as reported in the statistics as compared with earlier years.”
(Penrose, 1978).

Farmers’ Standard of Living

No statistics on this topic are available for the period since 1969 except a report published in 1976 by the Ministry of Agriculture and Agrarian Reform. According to this report, “There is no doubt that a significant increase in the farmer’s income has been achieved as a result of redistribution of land ownership, eliminating intermediaries and providing new owners of the land with better credit facilities”. The same report indicates that the average annual income of a rural family from agriculture for the period 1960 to 1975 ranged from 135 I.D. to 560 I.D. (Iraq, Ministry of Agrarian Reform, 1976). These estimates cannot be treated as reliable and representative for the following reasons:

1. The study does not reveal how the sample was chosen;
2. No distinction was made between the income of the farmers as a whole and those who benefited from the Agrarian Reform Law;

3. The study ignores the cost of the subsidy provided by the government and the administrative cost in replacing the intermediaries.

Iraq's experience with two Land Reforms spanning more than three decades demonstrates that achieving agricultural development requires genuine autonomy for farmers and that the redistributed land must have secure tenure if it is to be worked effectively. Clear statutes administered with impartiality and transparency is also essential, particularly in a multi-cultural and tribal society where the charge of nepotism can be easily levied.

Two Decades of Negative Agricultural Growth

During the last two decades, the Iraqi agricultural sector failed to achieve its basic objective of reaching self-sufficiency in food. Iraq's infrastructure and economy were devastated by the war with Iran, then the Gulf War and, most recently, the war of 2003. One study indicates that the agricultural sector declined during the period 1980-2000 by – 1.1% (Al-Debagh, 2005). Currently, 90 percent of the population in Iraq depends on the United Nations for food, another indicator of stagnation in this sector.

Prospects for Developing Iraq's Agriculture and the Potential Role of Co-operatives in the Transformation Process

Transformation of the Iraqi economy from its dependency on oil to self-sufficiency necessitates the successful development of its agriculture. The transformation of Iraq's political system from patron-client to democratic requires that, in the rural areas where secularization is least developed, the opportunity for democratic economic and civil society structures are made possible. Given the levels of distrust and violence and disrupted infrastructures due to the war and the continuing insurgency, it is obvious that structures need to be established with clear principles of neutrality in politics and religion

and transparent governance to ensure delivery of these principles. Co-operatives facilitated by a government committed to their development as autonomous with locally empowered associations have the best chance of success. There is a great need for the current and future Iraqi governments to adopt a clear agricultural strategy.

According to the *Washington Post*, it appears that the Coalition Provisional Authority (CPA) believes that subsidized agriculture is the wrong policy. The CPA favors a “shock policy” as a way to push for a quick transition to a free-market economy. The CPA supposes that reducing farm subsidies will force farmers to invest more of their money in agricultural production as well as have more of a stake in the outcome of their efforts. “The government will now provide help in the form of technology and education and the market will take care of the rest” (Washington Post, 2004). Yet, this supposes that the Iraqi people are able to absorb a radically different form of economic policy imposed on an infrastructure severely weakened by war and deprivation. It might be believed that the Iraqi people have had enough shocks and the imposition of such a stringent model might further destabilize and polarize.

Several countries have realized the benefits of a free market by adopting different economic approaches demonstrating that “shock therapy” is not the only remedy. The majority of farmers in rural Iraq are extremely poor and the removal of subsidies will increase their perceived risk and thus dampen their incentive to produce. Subsidy reduction may even drive some farmers to abandon farming. Even developed countries such as the United States and those within the European Union provide farm subsidies despite agriculture’s declining share of Gross Domestic Product. For example, economic

studies place the average European subsidy at \$17,000 (US) per year and \$16,000 (US) for U.S. farmers (Economic expert. com, 2005).

As a point of comparison, the conditions of small farmers in Iraq are similar to those in India prior to its “green revolution”. The success of the Indian rural development model was due to its emphasis on “gradualism” rather than “shock therapy”. The fragility of Iraq’s economy at this stage calls for a measured and gradual approach away from the model of the past thirty-five years that was based on a centralized interventionist orientation. According to Joseph Stiglitz, “Countries like Hungary, Poland and Slovenia that took the gradualist approach to privatization...managed their transition far better than those that tried to leapfrog into a *laissez-fair* economy. Shock therapy countries saw incomes plunge and poverty soar” (Stiglitz, 2004).

If revived as a part of well-integrated agricultural plan, co-operatives can play a dual role in the transformation of the political and economic system in Iraq. Nurturing co-operatives can strengthen the roots of democracy by capitalizing on the virtues of co-operation such as a democratic membership, autonomy, equity and independence. To realize the economic benefits of successful and viable co-operatives, the Ministry of Agriculture needs to consider a comprehensive and well-funded program to assist agricultural co-operatives. It should provide for credit, marketing facilities, technology, and education. Longer term, these subsidies can be removed so that co-operatives can achieve full independence.

Special attention should be given to improving the existing ration system, at this stage, by partially monetizing it to ensure the continuous participation of the local farmers. The existing system is not conducive to stimulating farmers to increase their

grain production. This is because imports of subsidized grain from different countries put local farmers at a tremendous disadvantage. The government should continue to buy agriculture products produced by small farmers and compensate them with incentive prices to stimulate increased production. This should orient production towards the market rather direct consumption by the farmers.

A subsidy can help farmers improve their meager income and stabilize the declining farm population. The removal of farm subsidies should be contingent on rebuilding the rural infrastructure and the creation of adequate private marketing channels. The Indian and Egyptian experiences in supporting prices of small farm co-operatives proved to be very successful in transforming and developing their agriculture. There is a good possibility that Iraq's small farm co-operatives if revived and given the required assistance will play an important role in transforming Iraq's agriculture.

Summary and Conclusion

Many Iraqi and international studies draw attention to the land tenure system existing before the Agrarian Reform Law of 1958, as a main cause of the agrarian problem in Iraq. The new regime of 1958 conceived the idea of land reform as a solution to its political problems in subduing the countryside and reducing the power of the feudal order. This involved the expropriation of land from the large landowners and the development of family farms supplemented by co-operatives.

The bureaucracy was at the same time careful to implement the Land Reform so as to not to mobilize a rural population that might be able to challenge it; hence distribution to the landless peasants lagged far behind expropriation. For example, from the end of September 1958 to the end of December 1968, out of a total area of 10,628,273

Donums, which were scheduled for expropriation, 7,073,346 Donums had been expropriated. Of this number, only 2,781,404 Donums were distributed.

Following this Land Reform there was a significant increase in the establishment of Land Reform Co-operative Societies, especially after 1963. Because most of these co-operatives, however, suffered from inadequate capital and a lack of experienced management personnel, they were not capable of successfully replacing the landlords and their hired managers (Sirkals). The Land Reform of 1958 achieved its political objective by abolishing the economic and political base of the landlords. The economic *need* of increasing Iraq's agricultural productivity, however, has not been met. The second Land Reform Law of 1970 involved a shift of emphasis from small family farms to the development of collectivized agriculture. Despite an increase in the finance the government allocated to the development of the agricultural sector, there has not been a corresponding increase in the production of the main crops. Iraq's imports of agricultural products continue to increase, thus reducing the foreign exchange to be allocated for productive investments.

The Land Reform co-operatives encountering the same problem that surfaced following the implementation of the first Land Reform. The situation was further aggravated by the extreme shift in policy from family farms supported by co-operative system to one of collectivization during the 1970's. During the 1980's the trend toward collectivization ended when the government decided to privatize and sell the collective farms.

In conclusion, government should adopt gradualism rather than “shock therapy” because of the fragile economic state of the small farmers at this time. If a viable civil society is to emerge to heal the wounds and rebuild national unity in Iraq, then co-operatives must be encouraged to play a significant role in transforming Iraq’s agriculture. The revival of co-operatives could therefore serve a dual purpose, both strengthening democracy while reaping economic benefits

Chapter Two

Government Investment Programs With Special Attention to the Agricultural Sector from 1950 to 1975

The aim of this chapter is to illustrate the history of economic planning in Iraq. From 1950 through 1975, the timeframe of this study, the Government of Iraq attempted to stimulate and achieve economic development, first through the Development Board (1950-1958) which sat during the years of the monarchy and, subsequently, through the Planning Board which was appointed during the Republic. Special attention is focused on the agricultural sector and includes an evaluation of the investment programs operating during the two periods, 1950-58 and 1959-1975.

The need for Government planning

It is not easy to precisely define the parameters of 'planning' because its scope depends upon a number of economic and non-economic variables; these include a country's stage of development, the degree of freedom versus limitation desired for the private sector of the economy, and the political ideology to which a government is committed. The word 'plan' as far as Iraq's economic plan is concerned could be used as an alternative to the phrase "government investment programs".

Regarding the necessity for planning in the developing countries, some economists, such as Professor Johnson, make a strong case for the market mechanism rather than planning, as a strategy to achieve economic development in developing countries. One reason is that the achievement of the desired results by control methods is

likely to be more difficult and inefficient in a developing economy. Alternatively, the market directs the allocation of production between commodities according to the criterion of maximum profits, which corresponds to usefulness. By solving the allocation problems of scarce means between alternative ends, a properly functioning market system tends to stimulate both economic efficiency and economic growth (Johnson, 1962).

The basic justification for planning in some respects is that the market mechanism, left to itself, cannot be relied upon to produce the socially most desirable results. The reasons put forward for this is that the price system exists in only a rudimentary form and market forces are too weak to accomplish the changes needed for rapid growth. The market mechanism operates more imperfectly in developing countries than in advanced countries for various reasons, such as great degree of immobility, indivisibility of resources, and imperfect knowledge. The problem of economic development in Iraq during the last four decades was not necessarily one of inducing marginal shifts in the allocation of resources but, rather, one of introducing large-scale fundamental changes into the economic structure so as to adapt it to the requirements of economic growth. Further, it was recognized there was a dearth in the class of entrepreneurs who could take over the responsibility for promoting economic growth in the absence of planning initiated by the government. Shwadran stated, "The private investors have neither the required resources, nor a willingness to risk their capital in the development of long-run projects" (Shwadran, 1960). The middle classes regarded as the main source of entrepreneurship in the economic development of the Western world, were almost non-existent in Iraq. Consequently, as economic development would not happen automatically, the government is called upon to perform not only the traditional state

function, but also to participate directly and indirectly in accelerating the growth rate of the economy.

1. Development Board's Economic Plans, 1950-1958

The government of Iraq conceived the idea of entrusting the task of development to an autonomous agency. This was established according to Law No.23 of 1950, called the 'Development Board', under the presidency of the Prime Minister. Membership was to include the Minister of Finance and six full-time executive members to be appointed by the council of ministers for a five-year term, which might also prolong their terms (Law No.23 of 1950). The Law also diverted oil revenues to the Board, to support investment programs. From 1950 onwards, oil revenues were almost the sole source of development finance in large, constituting 40% of the national income in constant prices, and 85% of foreign exchange earning (Hashim, 1970). The existence of the foreign exchange from oil revenue relieved Iraq of the problems that beset most developing countries in their efforts to import both capital and consumer goods.

The functions of the Board were as follows:

1. To present general economic and financial plans for the development of Iraq's resources designed to raise the standard of living
2. To conduct surveys of the country's exploited and unexploited resources
3. With the approval of parliament, to carry out program projects

The First Board's Economic Plan 1951-1955

The Board began to operate towards the end of 1950. In 1951, the first plan announced a total expenditure of I.D. 65.7 million, funded by oil and domestic loans. The plan placed priority on irrigation, including flood control projects.

In 1952 a revised version of this plan was drafted as a result of the 1951 agreement between Iraq and oil companies. The new agreement gave Iraq 50 percent of the profits. With this sizeable increase in oil royalties, it was decided to give the Board more permanent status. Although the revised version of this plan was drafted to take account of this increment in oil revenues, the character of the projects remained the same as in the original. Only their scope was enlarged. This plan allocated expenditures of I.D. 155.4 million and was designed to cover a five –year program from 1951-1956.

34.4% of the total expenditures were to be devoted mainly to flood control and irrigation projects in the agricultural sector. No allocation was made for specific important and complementary agriculture projects such as extension services, rural health and education.

In July 1953, a new law was enacted. Law No.27 of 1953, created a Ministry of Development to serve as a link between the Board and the Council of Ministers. The authority of the Board was curtailed in favor of the new ministry. Consequently, the Board lost its independence and its actions became dependent upon agreement with the Minister of Development. This change in the situation of the development machinery, accompanied by a sharp increase in oil revenues that far exceeded original estimates, made it necessary to revise the plan. A new five-year plan was enacted covering the period 1955-1959.

The Economic Plan of 1955-1959

The new plan proposed a total expenditure of I.D. 304.3 million, which was almost double that of the previous plan. The main difference between this and the previous plan, apart from the scope, was that the new plan directed that the Board's so

called minor projects were to be implemented by other government departments. According to this plan, the agricultural projects were allocated 37.6% of the total planned expenditure.

Another revision was made to the plan resulting in its replacement by a new five-year plan, covering the period 1955/1956-1960/1961. The main reasons put forward in presenting this plan was an increase in oil revenues, the completion of several studies and especially the recommendations of Lord Salter in favor of a more flexible and diversified program. This plan called for a total expenditure of I.D. 500.2 million with 33.6% to be devoted to the agricultural projects.

In 1958 Iraq experienced a coup, which overthrew the royalist regime and brought changes in the government's development administration. The Development Board was disbanded. However, the Ministry of Development continued for a short while to supervise the Board's last program, assisted by an advisory council, until Law No.74 of 1959 abolished the Ministry of Development and created an economic Planning Board and Ministry for Planning.

2. The Economic Development Plans of the Planning Board, 1959-1969

The second stage in the planning experiment in Iraq commenced with the provisional economic plan, which was adopted to cover the period 1959-1961.

The 'Planning Board' Provisional Economic Plan of 1959-1961

The coup of 1958 attempted to change certain aspects of the Board's line of policy. The new regime's policy was based on the view that the monarchy had been over-cautious. The aim of the new plan was to "change radically the direction of the plan of

the previous regime, in a manner which can serve the interest of the Iraqi people". Further, the new government stated that oil revenues had been wasted on matters of no interest to Iraq (Ministry of Guidance, 1959). The new regime decided to restrict the share of development programs to 50% of oil revenues.

A fresh drive to speed up industrialization through a protectionist policy was decided upon in order to benefit those enterprises thought to have competitive potential. This took the form of a remarkably increased allocation to the industrial sector during the economic plans of 1961-1965 and 1965-1969. The total expenditure of the provisional economic plan was estimated to be I.D. 392.1 million, and the agricultural sector's share in this plan was 12.2% or I.D. 47.9 million (Ministry of Guidance, 1960).

There was a continuation in implementing the Board of Development's agricultural projects with storage, irrigation and drainage constituting 70% of the total agricultural sector proposed expenditure. However, there was an urgent and serious need after the announcement of the agrarian reform of 1958, to spend more on adequate loans, extension services, and fertilizers in order to support the change in landownership.

The Second Planning Board Economic Plan, 1961-1965

According to Law No.70 of 1961, a new plan was drawn up which proposed total expenditures of I.D. 556.4 million covering the period 1961/62 -1965/66. The plan gave the highest priority to the industrial sector, to which I.D.166.8 or almost 30% of the total was allocated while the agricultural sector received only 20.3% (Government of Iraq, Law No. 70 of 1961).

Beside this sharp decline in relative as well as absolute terms, the nature of the agricultural projects changed little from the previous Board's program. Within the

proposed spending for the agricultural sector, 72% was to be allocated to storage, irrigation and drainage projects, with only 4.2% allocated to agrarian reform (Al-Ali, 1967).

The argument for the shift of emphasis in development strategy was put forward by Iraqi policy makers in official documents as follows:

1. Industry is the main component of economic independence. Iraq has very favorable conditions for the development of many industries.
2. It is on the basis of industrial development that the economy progresses technically, and that people acquire skills.
3. It is mainly by industrial development that the true solution of the employment problem can be expected (Ministry of Guidance, 1961).

This plan was relatively different from the other plans, in that an annual growth rate of 10% in the national income was set as an objective. In addition, the proposed expenditures were not to heavily depend upon oil revenues; part of the development expenditure was to be derived from foreign loans. However, the most noticeable feature was that for the first time in the history of Iraq's development planning experience, expenditures allocated for the productive sectors exceeds those of the unproductive sectors.

The Third Planning Board Plan of 1965-1969

On January 18, 1965, a new economic plan was announced through Law No.87 of 1965, providing total expenditures of I.D. 640.7 million. First priority was given to industry. The plan bumped up the agricultural sector's priority from fourth to second place in terms of assigned funds (Government of Iraq, Law No.87 of 1965). The majority

of funds for agriculture was allocated to projects for improvements of irrigation and drainage systems and to a lesser extent dams and barrages. The projects were to be completed in fifteen years. At that time, they were to regulate irrigation and drainage of 9,800,000 Donums in the Tigris basin and 2,240,000 Donums in the Euphrates basin of which 1,000,000 Donums had been previously uncultivated. For the first time, policy makers established an annual growth target was set for the agricultural sector in this instance 7.5%. Another goal was to achieve and sustain self-sufficiency in agricultural products, taking into account the increase in population and the change in the elasticities of demand for agricultural products (Ministry of Planning, 1965).

While establishing goals was a positive step, it would have been a challenge to formulate a productive target for the agricultural sector given that reliable field information was lacking. In addition, semi-traditional agriculture was heavily dependent on weather and climate variations, which could impact such ambitious agricultural growth targets.

Evaluation of Iraq's Economic Plans, 1951-1969

1. The Board's economic plans of 1951-1958

Allocation of resources: Surveys of the experience in other developing countries at the time indicate that development planning usually passed through a number of distinct phases, one of which was nothing more than establishing certain development projects. The Iraqi Board's development plans were no exception in this respect. They included a list of public investments projects, but lacked an analytical framework in which to determine their feasibility as well as their contribution to the national income.

The Board was influenced by the ‘engineers’ rather than the economists’ viewpoint on the feasibility of the proposed projects. No consideration was given to cost-benefit analysis. A large amount of capital was spent on the costlier methods of increasing agricultural production through the increase of areas under cultivation rather than improving the productivity of land already under cultivation. As Salter states: “Water policy ... is primarily an engineering problem ... it starts naturally with such general surveys as those made by the Haigh Commission and K.T.A.M. Engineering Company. These surveys provided the basis of the decisions as to where the great water structures were to be built. They also indicated the land’s natural potential for fruitful cultivation with the aid of irrigation and drainage. What the surveys provided, in this respect, however necessary and useful, could not decisively drive policy. They should have served only as a starting point for the real and difficult task of planning. A dam site may be wisely decided upon on the basis of an engineer’s survey. But much more is needed before a prudent policy can be formed as to what irrigation and drainage or where and when, should be undertaken...it may be the task of an engineer’s plan to make enough land cultivable land to support a population of 20 million. But the total population of Iraq at that time did not exceed 5 million. Salter emphasizes that, “Engineers made a plan for developing the land; but Iraq’s task was to develop a nation. The land exists for man, not man for the land” (Salter, 1955). Professor Langeby argues that, in the construction of these facilities, there was confusion between technical and economic efficiency (Langeby, 1954).

One distinguishing feature of the Board’s plans was the unbalanced allocation of the investment funds favoring physical infrastructure, such as flood control and irrigation

absorbing over 80% of the total planned expenditure. Less than 20% remained for direct investment in agriculture and industry.

Although it is important for a country in the early phases of development to expand its infrastructure facilities, the over-emphasis by the Development Board on these projects caused undesirable consequences, and neglecting investment to improve human capital and the productive sectors of agriculture and industry. Little attention was given to certain complementary tasks of the infrastructure projects. For example, while several highways were constructed to link the main cities, the creation of feeder-roads to connect agricultural areas with these highways was neglected.

These infrastructure projects attracted agricultural workers from nearby rural areas to the worksites. As these projects were concluded, high numbers of workers were let go. The productive sectors did not expand sufficiently to absorb all the unemployed. Thus, the projects substituted under-employment in agricultural areas with unemployment in urban areas.

The massive water control projects could not demonstrate immediate tangible results, except to prevent some areas from flood destruction. Even in this respect, evidence of the 1969 flood showed that the projects were relatively incapable of fulfilling their objective. Neither dam building nor flood control projects alone could further the development of agriculture, because the agrarian problem in Iraq was the result of an accumulation of complicated factors that required well integrated economic and social plans. As *the Economist* wrote, “By comparison with Iraqi flood control, housing or industry, Iraqi agriculture has been ‘a Cinderella. It had benefited too little from the expenditure of oil revenues – an unfair situation among people of whom the bulk are in

agricultural employment, and in a country, that draws a quarter of its national income from agriculture" (*The Economist*, 1957).

The principle beneficiaries of the water projects were the landlords who constituted the backbone of the oligarchic political system. Raphaeli states, that, "The government was reluctant to take direct action to change the land tenure system, which would have resulted at least in a more suitable atmosphere to stimulate the incentives of farmers to increase production. The government hoped to alleviate the extreme inequality of land ownership by extending the irrigation area rather than by intensifying cultivation on the land already under cultivation" (Raphaeli, 1966).

Another study by D. Warriner stated, that, "the effect of development expenditure in Baghdad is to make the contrast between rich and poor more striking. The great increase in imports benefits, chiefly the rich, whose consumption of cars, air-conditioning and luxurious new houses is very conspicuous. The "Sarifah" - mud hut slums - are growing fast without sewage or drinking water. Very little has been spent on social welfare" (Warriner, 1957). Moreover, the concentration of development expenditure on the big capital construction and the expansion of employment in the main cities caused an increase in the exodus of farmers as a push-factor from rural areas to the urban centers. According to the official figures based on the 1957 census "the size of immigration from the rural areas to the urban centers was estimated to be 330,000 during the period 1947-1957" (Hashim, 1970).

The export of non-oil products, of which agricultural products constituted more than 90%, declined from I.D. 20 million or about 14 percent of the national income in 1950 to I.D. 14 million constituting only 2.7% of the national income in 1958 (Haseeb,

1962). The contribution of agriculture to national income during the period concerned was generally in decline. This was particularly evident after 1958 coup.

Implementation of development plans

The primary criterion for evaluating whether the investment plans and implementation targets were met is a comparison between proposed expenditures and actual expenditures. As Waterson emphasizes, the failure to execute plans may manifest itself in multiple ways. These include the inability to invest in economically sound projects, delays in the execution of projects, inferior construction, selection of low yield projects and the inability to use facilities provided by investments (Waterson, 1966).

It has often been stressed that while the rate of saving is the basic limiting factor promoting the level of capital formation in developing countries, it is by no means the only limiting factor. Iraq's Boards, for example, encountered hurdles because of the limited ability to invest rather than the scarcity of capital. As Hirschman emphasized in this respect, it may be possible at one stage that a country's saving ability exceeds its ability to invest its entire savings efficiently (Hirschman, 1958). This inability to invest is clear from the gap between the economic planned and actual expenditures during the period 1951-1975.

The U.N./ F.A.O. concluded that three main features characterized the Board's expenditure. First, the Board did not consider anything beyond the application of current revenue to development expenditure. Second, prior to 1956, it did not spend even one-half of its income. Third, only a fraction of its total expenditure was allocated for direct productive investment. (F.A.O., 1959).

The Board's development policies failed to achieve their goals in enhancing the productivity of sectors such as agriculture and industry.

2. The Evaluation of the 'Planning Board' plans 1959-1969

Allocation of Resources: The new regime's attitude towards development planning shifted, to some extent, from that of the previous regime and greater emphasis was placed upon industrialization. This resulted in the decline of the relative share of agriculture in the total investment expenditure of the 1961-1965 and 1965-1969 plans respectively.

The justification for this shift in emphasis from agriculture to industry after the 1958 coup seems to have been due to the Planning Board's belief that most economically advanced countries are 'developed' because their economies are industrialized, and so the short way to development is industrialization.

In an explanatory note, the Economic Plan of 1961-1965 stated, that, "Industry increases national income by a higher percentage than agriculture with regard to capital and labor productivity (Ministry of Guidance, 1961). Thus, it seems that the Planning Board believed in the connection between agriculture and low income.

Professor Iverson noted that the main emphasis should have been placed on the development of agriculture, stating, that, "Iraq has large comparative advantages in agricultural production, whereas the possibilities of creating new industries, able to compete on equal terms with producers abroad, are more limited and more remote"(Iverson, 1954). Another study by Salter declared a number of reasons against a focus on industry and in favor of developing agriculture. Population pressure on land was small, there was no shortage of foreign exchange and, in the long run, the world's rapidly increasing population would press more and more upon food supplies. Hence, it

was likely that terms of trade would be more in favor of agricultural countries (Salter, 1958).

The Board also ignored the simple fact that success in stimulating industrialization requires increased agricultural productivity as a prerequisite. This, in turn, contributes to the purchasing power of the rural population, which becomes sufficiently productive to produce needed food and raw materials.

The experiences of many developed countries, such as the United Kingdom, demonstrate the remarkable progress which agriculture made during the first quarter of the 18th century, which firmly laid the ground for industrial progress. A century later, in Germany, industrial development paralleled rapid improvements in agricultural production. Increasing productivity resulted in a rise of income in the agricultural sector and increased the savings margin, enabling the flow of resources into the non-agricultural sector. This evidence showed that progress in agriculture paved the way for the establishment and growth of industry. Bauer and Yamey state, that, "The best way for the government to hasten industrialization may be for it to use more rather than less of its resources to encourage the enlargement of agricultural output and the improvement of agricultural techniques. In the earliest stages of development suitable assistance to agriculture may be the best safeguard for the establishment and growth of a viable industrial sector" (Bauer and Yamey, 1965).

The growth of agricultural production in the earlier stages of a country's economic development is an integrated and necessary part of the growth process itself. In Iraq, the majority of the working population depended on agriculture during the period under review serving to underscore how critical agricultural investment should have

been. A focus on agricultural investment in the development programs of Iraq would have clearly been justified using the government's own 'capital intensity' criterion for allocating investment. A given quantity of capital is allocated in such a way as to maximize current output. The concentration on agricultural investment instead of alternative forms of investment could contribute to the maximization of output, since agriculture requires a relatively lower quantity of capital per unit of extra output than industry. However, it is not the purpose of this study to address the case of 'agriculture' versus 'industry' because, as Professor Bruton declares, "Those who advocate concentration of investment in one specific group of activities must then make assumptions or gather data that lead them to the view that those activities are the ones that will yield the greatest returns to the community" (Bruton, 1967).

Iraq's Board of Planning did not develop an integrated public investment policy. One reason may be that it viewed various sectors as competitors for resources and had decided to focus most investments on industrial development. In fact, these sectors should have been viewed not as competitive but complementary. The goal of economic growth is to achieve a sustained increase in per capita income. This must necessarily involve a relatively wide measure of structural changes in the economy and the Iraqi growth process required more diversification of economic activity. Additionally, as stated earlier, the growth of one sector is dependent on the growth of the other, once past an initial stage of development.

Finally, the Board of Planning did not recognize the possibility that agriculture as a primary income-generating sector can produce significant results. Australia, New

Zealand and Denmark, which are preponderantly agricultural, enjoy some of the world's highest living standards.

According to Tinbergen, the question of resource allocation between different sectors can best be dealt with by a group of people who are aware of different aspects of the process of development, have a good knowledge of the country, and are objective and broad-minded (Tinbergen, 1961).

Implementation of Development Plans, 1959-1969

The main goal of the new regime's development policy was to achieve rapid social and economic progress. However, one of the main defects in implementing Iraq's economic plans was the failure to coordinate planned and actual expenditures.

The amount allocated to the agricultural sector in the economic plan of 1959-1961 totaled I.D. 47.9 million or 12.2% of the total plan. Until 1961, actual expenditures constituted only I.D. 20.9 million.

Actual government expenditures for agriculture for a five-year period (1961-1965) came to only I.D. 8.6 million while the F.A.O. estimated need at I.D. 21 .8 million annually (F.A.O., 1967). Less productive sectors such as housing and buildings were allocated 47.6% and transportation and communication were given 24.2% (Ministry of Planning, 1967).

The gap between planned and actual agricultural expenditures reflected the urgent need for adequate financial measures to supplement and maintain the economic results of the distribution of land ownership that had occurred under the new agrarian reform of 1958. Furthermore, there were plans to distribute 567,000 Donums in 1965-1966, but by

the end of 1966 only 80,682 Donums, or about 14 percent of those planned, had actually been distributed.

After six years of implementing the agrarian reform, the policy makers were primarily successful only in achieving the political goal of removing the landlords. No significant progress was made towards social and economic goals because of inadequate financial support. The redistribution of land ownership did not necessarily lead to an instant improvement in productivity. The immediate effect of such measures may have improved the farmers; standard of living through increased consumption, but such gains would inevitably be short-lived because of the lack of agricultural surplus. Land redistribution alone would not result in increased farm output without an actual increase of capital investments in agriculture. What was required was a corresponding vigorous economic investment.

While the economic plan of 1965-1969, could be considered a first attempt to more comprehensive, integrated planning, there remained wide gap between planned and actual investments. The planned allocation to the agricultural sector was I.D. 173.6 million but actual expenditures were I.D. 45 million by the end of the plan in 1969. This utilization of only 26% of targeted funds was the lowest percentage of fulfilled investments funds compared with other sectors of the economy at that time (Ministry of Planning, 1971).

Agriculture contributed an average of 27.7% to the gross national product during 1953-1959 declining to 22.6% during 1960-1969. The official newspaper, *Al-Wqai Al-Iraqia*, commented on the relative stagnation of the agricultural sector and noted the

reduction in the percentage contribution to the gross national product (Ministry of Guidance, 1965).

The policy makers of the Ministry of Agriculture aimed to create an agricultural surplus in order to greatly increase agricultural exports. Yet statistics show not only a decline in such exports but also an increase in agricultural imports both in quantity and value.

From 1952 to 1958, plans called for 70% of the oil revenues to fund the economic plans, with the remaining 30% to fund the 'ordinary budget'. From 1958, this planned allocation of oil revenues was reduced to 50% for economic development budget and 50% for the ordinary budget.

Ordinary budget expenditures on defense and security, increased from I.D. 9.7 million in 1950 to I.D. 84.9 million in 1965. On average, defense and security expenditures constituted approximately 45 percent of total government oil royalties. Since a large portion of these went to weapons imports, there was no immediate increase in the supply of goods and services.

While the implementation agencies, in the era of the Development Board (during the monarchy era), could spend directly, their financial measures, under the new Planning Board's (during the republican era) plan they were subject to the approval of the Ministry of Finance, thus, limiting Board's capability of implementing projects effectively. The objectives of finance agencies and planning agencies were different. "Finance thinks in terms of economy, planning in terms of development."

The National Development Plan of 1971- 1975

In 1971, a new National Development Plan was instituted. It had as its goals the raising of national income by 7.1% annually; an increase in the productivity of the agriculture and industrial sectors; the maximization and utilization of mineral resources to reduce independence on oil; an increase in employment opportunities and social services; and to achieve a more equitable distribution of income (Ministry of Planning, 1970).

Changes were made to sectorial priorities compared with the previous economic plan. This plan gave the highest priority to the agricultural sector with an allocation of I.D. 185 million or 34.4% of the total funds. However, during implementation, the actual share was reduced to 20 percent of the planned 34.4 %. The chronic inability to spend allocated funds continued during the implementation of this plan. The ratio of actual to planned spending in the agricultural sector did not exceed 57% (Annual Abstract of Statistics, 1975).

One important feature of Iraq's economic planning experience was a lack of quality institutions. The low levels of efficiency that characterized the Ministry of Planning and the Ministry of Agriculture and Agrarian Reform were partially responsible for the disappointing agricultural growth rates that persisted through decades. These meager growth rates were insufficient to meet population growth and increased demand on agricultural products. Consequently, the government had to increase its import of agricultural products to meet domestic demand. By the end of the 1970's, Iraq imported over 75 % of its food.

The significant increase in oil revenues (1970-1975) from I.D. 214 million in 1970 to I.D. 1.7 billion in 1974 assisted the government in paying for increased imports of agricultural products and diffused the inefficiency and mismanagement of the government agencies. According to Metz, “The responsibility of the state was not so much to allocate scarce resources as to distribute the wealth, and economic planning was concerned more with social welfare and subsidization than with economic efficiency” (Metz, 1990).

Despite the fact that agricultural development was touted as an essential part of economic development in Iraq, policy maker of the last four decades were in reality biased against its development. This was reflected in the relatively low level of funds allocated to the development of the agricultural sector in all the economic development plans. Actual expenditures were extremely low. For example, while expenditures for agriculture were planned at I.D. 1019 billion from 1950-1975, actual expenditures did not exceed I.D, 488 billion, or 48 % of the planned amount. The corresponding percentages for planned vs. actual expenditure were 65% for industry, 68% for transportation and communications, and 62% for building and services. (Annual Abstracts of Statistics, 1958- 76).

This neglect, coupled with other disincentive policies such as price controls on the main agricultural products, were some of the important factors that caused the agricultural sector to stagnate during the period under review.

The sector’s poor performance, especially during the seventies, represented a continuous challenge to the Baath party’s economic policies. One of the Baath party’s

objectives was to achieve self-sufficiency in food products. This failed completely as Iraq turned from an exporter of agricultural products during the 1950's to a net importer.

In the 1970-1975 economic plan, the Iraqi government suddenly decided to significantly increase funds allocated to the military. In 1970 the government spent approximately \$1 billion (19.4% of the GDP) on military expenditure. In 1975, \$3.5 billion was devoted to military spending, (22.8 % of the GDP) a significant increase (Alnasrawi, 1994). In the absence of any serious threat of attack against Iraq during the period, this sudden tilt towards military expenditure had no justification. Scarcely oil revenues should have been directed towards more productive sectors of the economy.

Main causes of Iraq's economic planning failure

Iraq failed to successfully implement its economic plans because:

1. Lack of basic data

The ability to formulate as well as implement plans is dependent on access to data for comparative and measurement purposes. Planning in Iraq was severely handicapped by a widespread shortage of data and information and by inaccurate statistics. The Economic Commission for Asia and the Far East once remarked that, "planning on the basis of inaccurate data may be worse than no planning at all, since such data may not only point to wrong solutions of problems, but also creates a false sense of complacency and leads to serious bottle-necks and rigidities" (Economic Bulletin for Asia & the Far East, 1955).

According to official reports, it was declared that due to the weaknesses of the few statistical organizations, and the data available, all the Iraqi economic plans with the relative exception of the 1970-1974 plan, were not formulated on utilizing adequate basic

statistics concerning the national income, input-output data, capital formation, and the size of the human resources, all of which are so fundamental to proper planning (Ministry of Planning, 1976).

2. Administrative inefficiency

Developing countries tend to have under-developed administrations. Iraq benefited from an increase in oil revenues after the fifties, which allowed the government to plan increased expenditures in its economic plans. However, this was not accompanied by an improvement in the efficiency of the public administration. The World Bank Mission pointed out many defects common in Iraq's administrative structure such as "excessive centralization, inadequacy of pay scales, low moral, and lack of any sense of participation in constructive work, which badly affected the efficiency of the administration" (International Bank for Reconstruction & Development, 1952). The shortage of qualified personnel, able to assess the value of different investment alternative and to have a comprehensive view of a plan, was a serious handicap to programming. This inability was evident in the poor choice of alternative investments. The red-tape bureaucracy, which characterize most public administrations, consumed most of the senior official's time, with only a small amount of time left to devote to matters of development and review. In fact, defects in the administrative machinery were so acute that instead of paving the way to economic development, they became some of the most important obstacles.

3. Political instability

The implementation of development programs is, by necessity, a long-term task. The program's continuation requires a minimum degree of public tranquility and national

cohesion, both of which were absent in Iraq since the establishment of the Iraqi government of 1921. A United Nations study in 1966 pointed out that political instability was an important factor in explaining poor implementation of plans in Iraq, because political instability weakened decision-making by various government authorities. Moreover, there were revisions of economic plans for of political rather than economic considerations. One of the causes of this political instability was caused by the political set-up and ignoring the social factor in formulating the economic plans. While planning is in part a social process, it is essential to take into account the socio-cultural structures and values involved. Both the 'Development Board' and 'Planning Board' failed to take account of this relevant factor in the plan preparations, and penetration. Consequently, there was a lack of authenticity and effectiveness in the actual context of their mode of action, to break the rigidities and to achieve more flexibility in the entire social fabric.

Chapter Three

The Economic Concept of Co-operation and the Efficiency of Land Reform Co-operatives in Iraq

This chapter discusses the development and concepts of co-operation; the socioeconomic purpose and benefits of co-operatives, the prospective role of the agricultural co-operatives in developing countries; co-operatives and central government. Special attention is given to analyze and discuss the Iraqi definition of agricultural co-operation and its application.

In addition, the chapter explores the problems of measuring efficiency of co-operatives in developing countries. Special attention is given to evaluate the management efficiency of Iraq's land reform co-operatives during the period 1958-1980.

Development of Co-operatives

Co-operatives have undoubtedly been in existence since the early days of civilization. Historical information suggests various forms of co-operative activity since the Babylonian era. It is important to mention that historically the rise and expansion of the modern co-operative movement has its roots in the far-reaching economic, social and political changes which took place in Europe in the late eighteenth century and which continued throughout the nineteenth century, particularly with reference to the industrial revolution in England. Much modern co-operative activity arose in response to low prices for farm products and high prices for imports, wide marketing margins excessive transportation costs, and, in general, a lack of farmer bargaining power. Underlying the establishment of co-operation in agriculture is the belief that individual farmers working together can enhance their economic position.

The co-operative movement has developed along specific lines. This involves enlisting the principles of participation and democratic forms of organization in pursuing certain economic objectives. Paul Lambert's definition of the co-operative society includes most of the above-mentioned characteristics. He defines the co-operative society as "an enterprise formed and directed by an association of users, applying within itself the rules of democracy, and directly intended to serve both its own members and the community as a whole." (Lambert, 1965).

Concepts of Co-operation

Numerous definitions of co-operation have been attempted. For Sir Plunkett, it was "self-help made effective by organization." (Plunkett, 1928). According to Casselman, "Co-operation is an economic system with social content. Its idealism penetrates both its economic and its social elements. The economic ideals affect the business enterprise, its methods and operations. The social ideals have a direct bearing on the association of persons comprising the society, particularly as they affect the membership and personal relations" (Casselman, 1952).

The F.A.O defines a co-operative as: "an organization wherein people join together voluntarily on an equal footing to achieve a common purpose at minimum cost." (The United Nations/FAO, 1963).

Diverse interpretations of this concept exist the multiplicity of viewpoints partly due to diverging specialized areas of study and interest on the part of the individual scholars concerned. Most co-operative students find it difficult to view the movement impartially, attaching varying degrees of importance to the co-operative movement according to how they envisage its role and to how they evaluate its operations within the

socio-economic structure. The literature on co-operation for the most part approaches the subject from reformist, ethical, sociological and historical viewpoints, and devotes insufficient attention to its economic aspect. When we try to illuminate this neglected aspect, we find ourselves confronted with controversial ideas concerning the economic nature of co-operative association, or what Paavo Kaarlheto considers “a lack of complete understanding of the nature of the co-operative form of economic activity.” (Kaarrlehto, 1955).

Ivan Emelianoff and Richard Phillips have evolved a theory in which the co-operative association is not viewed as a firm. In defense of this position Emelianoff contends that a co-operative is an aggregate coordination of economic units which does not obliterate or fractionalize its component parts as does a stock, profit-type Corporation, which is an entrepreneurial economic and legal entity in its own right. Since the co-operative itself can have no profits or losses *per se*, it is not an acquisitive unit but merely coordinate’s otherwise independent economic units (Emelianoff, 1942).

Richard Phillips expresses this concept in a slightly different way; “The co-operative elevator, the co-operative oil company, the co-operative creamery, and all other kinds of co-operatives have all the characteristics of a plant, but none of the characteristics of a firm. The co-operative activity, regardless of what kind, is a particular type of plant, not a particular type of firm. It is a plant owned and operated, not by one firm, but by several member firms jointly. The co-operative does not pursue a separate economic career apart from its member firms. Instead, the member firms each pursue their own economic careers and own and operate their co-operative activity jointly in order to pursue their separate economic careers more effectively” (Phillips, 1953).

Through a comparison of the operations and plan of organization of the co-operative with those of an ordinary business corporation, the underlying principles of both are revealed and contribute to a clarification of this dispute.

The economic activity of the co-operative bears a remarkable similarity to that of the ordinary capitalist enterprise. For example, E. Fred Koller holds the view that co-operative business accepts and perpetuates the essential institution of capitalism, which is the right of private property. Moreover, it retains the right of private enterprise with its emphasis on the importance of the individual. Koller further refers to the resistance on the part of the co-operative movement to government interference in its economic affairs:” In general, co-operatives recognize along with capitalist business that expansion of the business functions of the political state creates an instrument which in the end would destroy co-operatives or would allow them to exist only as an arm of the state and under its control.” (Koller, 1947).

Having examined the similarities between ordinary business corporations and the co-operative society, it is imperative to discuss the apparent and often overlooked differences between them. Co-operatives differ from ordinary business firms in their decision-making process. Voting in a co-operative is normally on a one-man one-vote basis regardless of the number of shares the individual member may possess. This differs from the practice of the ordinary business corporation where voting rights are proportional to the number of share owned by any individual. Nevertheless, the decision-making process in the co-operative asserts the importance of the individual, and in this respect, it deviates in no way from the basic tenets of private enterprise.

A second difference lies in the fact that the co-operative usually seeks to limit the return on capital, whereas the ordinary corporation has profit maximization as its prime objective. In the final analysis, however, both corporation and co-operative are seeking to enhance the economic status of their respective participants.

The third manner in which the co-operative differs from the corporation relates to its patronage refund distribution. In the co-operative, any net margins remaining at the end of each accounting period are apportioned to members on the basis of patronage. In the corporation, however, net profits are redistributed among stockholders on the basis of shares owned. Therefore, while a different pattern of income will emerge from the co-operative, this is not in contradiction of the basic principle of private enterprise.

At this stage in the overall argument, the need arises for a more comprehensive interpretation of the economic nature of the corporation. J.K. Savage has stressed the relevance of a definition of the firm in accordance with actualities. In commenting on Phillips' ideas, he concluded: "I look upon a co-operative as a firm in itself capable of making entrepreneurial decisions just as any private corporation. It is a "going concern", and a "going concern" has been defined as "an organization of coordinated activity; it is collective behavior with a common purpose, and a collective will govern by common working rules". The individual farmers have pooled certain of their entrepreneurial functions and in so doing they authorized a collective body to perform these functions for them. In the process, the farmer creates an agency and defers to it some of his individual prerogatives in order to obtain greater advantages". (Savage, 1954).

Whereas Savage approached the dispute by insisting on the practical aspect, Helmberger and Hoos have contributed most to the refinement of the definition of the

corporation by adopting an organizational approach (Helmberger, Hoos, 1962). Central to the definition of the firm here adopted is the concept of organization, which Chester Barnard defines as a “system of consciously coordinated activities or forces of two or more persons.” (Barnard, 1938). Thus, “a firm may be defined as a co-operative system which consists of organization, persons who contribute activity to the organization, and privately owned physical plant; and in which (1) economic resources are mobilized, (2) goods and services are produced for sale, and (3) primary reliance is placed on the proceeds from the sale of the product to meet production costs. This definition of the firm is not pegged on the existence of an owner-manager type entrepreneur, nor does it insist that the firm be a profit-making entity”. (Helmberger, Hoos, 1962).

The conceptual framework here adduced admits both the corporation and the co-operative into its ambit.

The Socio-economic Purpose and Benefits of Co-operatives

The aim of a co-operative is primarily one of securing more efficient and economical services for its patrons. This can be achieved by combining the activities of a number of individuals, which, on a collective basis, is aimed at achieving the economies of a large-scale organization. What positive contribution can these organizations make toward improvement in the economic and social aspect of the society? In the economic field, a co-operative can be organized for a vast variety of purposes such as production, processing, marketing, saving, insurance, improvement in land tenure arrangements, irrigation, and the supply of goods and services. However, the role and the objectives of co-operatives differ according to various ideologies and schools of thought.

E. Fred Koller considers that the primary role of a co-operative is to overcome the defects resulting from the imperfections in the competitive process, which interferes with free allocation of resources in accordance with consumer preferences. Thus, he concluded, “The fundamental objective of the co-operative plan of business is to improve competition and to enlarge the area in which the competitive pricing mechanism is effective.” (Koller, 1947). E.P. Roy supports Koller’s argument by stating that co-operatives may render at least four valuable services to the capitalistic system of which they are a part: (i) enhance private property, (ii) preserve market competition, (iii) retain the profit motive and (iv) maintain and strengthen the individual consumer and entrepreneur (Roy, 1969).

In contrast, Robert Owen, Henri Saint Simon, Charles Faurier, and Louis Blanc are not satisfied with the improvements achieved by co-operatives within the existing economic system. They want, as a long-term objective, to eliminate the competitive, capitalistic system and replace it with an economic system based on mutual co-operation.

To another group, however, the socialists (followers of Marxist-Leninist theory), the co-operatives can be an important step in socialist progress. Lenin’s co-operative plan assigns to co-operatives the part of a transitory stage, which facilitates the transformation from capitalism to socialism,

In the extreme case of Stalinism, where the state aims for total control of all economic activity, there can be no room for co-operatives. According to Louis Smith:” If the state is to be the expression of a “general will” which seeks the good of each as well as the good of all, then, as Rousseau pointed out, autonomous smaller groups can only impede the carrying out of the policy laid down by the nation. If it is true that the states

have an absolute right to override the individual, then co-operation of individuals can only obstruct that right by forming societies” (Smith, 1961).

These differences in the approach to co-operation are consistent with the observed general tendency for co-operative movements of most western European countries to loosen their ties with political organizations, in contrast to “co-operatives” in socialist one-part states becoming more deliberately involved in political affairs.

The prime benefit of co-operation to co-operative members is the improved income to be gained from membership. Co-operatives may provide services to rural people that they might not otherwise be able to afford of services that might not otherwise be provided. By providing services at cost to farmers and helping to increase farm income by assisting framers in producing and marketing their products more efficiently, co-operatives may help to raise the living standard of their members. Moreover, co-operation may improve the bargaining strength of the members, hence increasing their product prices or lowering their factor costs. Co-operatives can also introduce members to the use of modern business techniques.

The social purpose of a co-operative is of a far-reaching nature. Co-operative activity aims at fostering concepts of equality and mutuality, democratic control and voluntary association, and the social virtues of honesty, confidence and self-reliance. Moreover, it provides a unique opportunity for an education in democratic practice, the sharing of responsibility and belief in toleration.

The Prospective Role of the Agricultural Co-operative in Developing Countries

Developing countries, being dedicated as they are to economic development, have turned increasingly to agricultural co-operatives as one of the means of achieving agricultural and economic development. Land tenure institutions and their reform have a direct bearing on development through the achievement of greater equity and social justice. However, experience indicates that land reform alone is unlikely to achieve economic significances unless it is accompanied by complementary measures such as agricultural co-operatives. It is recognized that co-operatives can contribute to the successful implementation and promotion of land reform programs in developing countries. The United Nations Department of Economic Affairs contends, for instance, that co-operatives are of particular value in assisting farmers in the developing countries through improvements “in cultivation and tenure matters, as well as in the field of marketing and, to some extent, in solving the problem of agricultural credit.” (F.A.O, 1954).

Agricultural co-operatives can play a role in the mobilization of small savings, especially in remote rural areas where no banking and saving facilities exist. The experiences of some Asian countries, like Japan, Korea and Taiwan have been successful in encouraging savings in the remote rural areas. Furthermore, co-operatives can participate in increasing the productive capacity of farmers through the supply of better credit facilities and improved means of production. Co-operatives may also provide incentives to increased production and productivity through improved means of production and institutional arrangements for marketing, storage, transportation as, for example, in Egypt, Japan, Indonesia, Taiwan, Philippines and Korea. Co-operatives can,

within the overall framework of a community development program, also provide a useful economic platform for the creative utilization of physical and human resources.

Co-operatives can contribute to reducing disparities in wealth, or, at any rate, to preventing an aggravation of such disparities. For example, they can be instrumental in shortening the chain of intermediaries between producers and consumers, and in facilitating a “board based” ownership of the means of production. C-operatives often constitute the means by which government social and economic policies are introduced or implemented. They are not, however, a panacea for all the ills of less-developed countries because, unless they are permitted to achieve a certain level of efficiency via sufficient capital, truly voluntary participation, and capable management, the benefits that result naturally from such endeavors will be lacking.

Co-operatives and Central Government

The main influences, which lead to a relationship between government and co-operative movements, are:

- 1) The need to give legal recognition to co-operative societies, and to provide for their proper management and supervision in the interests of both co-operative members and general public.
- 2) The need to safeguard the right of members.
- 3) The need to prevent any abuse of the privileges accorded to co-operative societies.
- 4) The need to promote the movement because it may:
 - a) Be desired by the government and nobody other than the government is likely to take the initiative in promoting it;

- b) Be the best means of national development;
- c) Solve the problem of a lack of leadership and local personnel for the diffusion of new ideas and techniques. (Weerman, 1962).

The degree of actual government involvement or participation in co-operative affairs, however, varies a great deal from country to country, and depends mainly on the economic system and the stage of development of the co-operative movement. Moreover, it is not always easy to classify the policy of a particular government towards co-operatives as its attitude may vary with regards to different sectors of co-operation.

Generally, there are three different policies, which the government can adopt towards co-operatives.

- (1) The government provides the necessary legal basis for registration and possibly also some basic facilities through measures in its economic policy.
- (2) The government actively supports the co-operatives, resulting, in most cases, in a state-inspired co-operative movement, e.g., Egypt.
- (3) The government formulates and runs the co-operative societies, e.g., Iraq.

International organizations such as the F.A.O. and U.N., I.L.O. express hope that the governments of developing countries will withdraw when the required degree of viability in the co-operative movement has been reached. Franz Helm described the perfect balance: "The government should supplement co-operative self-help as far as possible, rather than replace it; assistance should not be given without at least some form of return, control should be exercised only if it is absolutely necessary to avoid wastage of

scarce resources or to coordinate co-operative activity within the framework of a planned economy” (Helm, 1968).

Konard Engelmann believed that, “Governmental initiative and aid in building co-operative movements is an indispensable instrument of progress in most developing countries—at least for the time being and the near future. It would be unrealistic to ignore the fact that government-sponsored co-operatives are bound to become tools for implementing state policies. But this is not necessarily incompatible with co-operative goals so long as the policies are not contrary to the final objectives of co-operation in the economic field in which they are applied.” (Engelmann, 1968).

One conclusion that can be drawn from this is that while governmental help is required in the first stages of building co-operative societies in developing countries, their social and economic goals can hardly be accomplished unless these co-operatives become economically independent. Thus, it is open to serious question whether co-operatives created and controlled by the state can be considered to be co-operatives in the same sense as those in western countries, or whether they constitute merely another concealed arm of the state.

The fate and role of the co-operative and the extent of its economic success depends on whether:

- (1) The state, after creating and developing the co-operative until such time as it is viable and functional, removes its control and influence. In this case the co-operative more closely fulfills the western definition.
- (2) The state, after creating and developing the co-operative, still chooses to maintain its influence and control over the co-operative. In this case, the co-operative cannot be

considered co-operative in the traditional sense; its autonomy has been replaced by direction from above. Co-operatives cannot exist without autonomy.

The Iraqi Concept of Co-operation

A precise definition of co-operation as a form of economic organization is difficult to formulate. In tracing the historical application of this concept in Iraq, the following factors need to be considered:

(1) No precise conceptual definition was formulated for either the first land reform law of 1958 or the second land reform law of 1970. Probably the only legal embodiment of this is contained in Declaration No. 5 issued by the Supreme Agricultural Committee in 1970: “An agricultural co-operative shall consist of a group of not less than ten farmers organized according to article number 38 of the land reform law in order to achieve mutual economic and social benefits accruing from their combined efforts, which otherwise would remain unattainable on an individual basis.” (The Iraqi Supreme Agricultural Committee, 1970).

This statement emphasized the assumed advantages of co-operation, to the neglect of its adequate prior conceptual elaboration.

(2) After independence was achieved in 1931, the predominant issue in Iraq was economic development. The increasing revenues derived from oil assisted the drive towards modernization and necessitated the creation of new institutions to achieve development. After the 1958 coup d'état and due to the subsequent intensification of the political atmosphere, the co-operative movement became charged with political significance and acquired a new political orientation, which endured subsequent changes of regimes in Iraq.

This argument may be clarified by relating some of the basic principles of co-operation to their practice in land reform co-operatives in contemporary Iraq. These principles involve the issues of:

- a. Form of membership
- b. Form of administration
- c. Attitudes to political and religious neutrality

a. Form of Membership

Co-operatives are defined by the values and principals under which they operate. They are based on the values of voluntary participation and membership, self-help, self-responsibility, democracy, and equality. Thus, one of the distinguishing features of co-operation is voluntary membership; Article No. 38 in the Land Reform Law of 1958 stipulates that every beneficiary of the land reform must be a registered member of a land reform co-operative. (The Iraqi Agrarian Reform Laws, 1965). The official justification given for compulsory membership was that the individual farmer still retains the discretionary option of not profiting from the land reform by not having any land. (Directorate General of Agricultural Co-operation, 1973). This argument founders because the co-operative membership has proven irresistible to the landless and poor peasants who have for centuries been awaiting such an opportunity and whose whole social and economic existence is derived from the land. Consequently, these co-operatives are far from being organized on a genuinely voluntary basis. The land reform co-operatives were controlled administratively and financially by the state. The significant increase in oil revenues during the sixties and seventies enabled successive

governments in Iraq to pursue political objectives by establishing state run organizations (including co-operatives) to the neglect of its financial viability.

b. Form of Administration

A co-operative is brought into being by its members. It exists to promote their interests and consequently those who administer its internal affairs must be elected directly or indirectly by the members and enjoy their confidence. According to Article No. 12 of the Agricultural Co-operative By-laws," The agricultural co-operative must have a management committee elected by the general assembly to carry out the functions and affairs of the co-operative in accordance with the by-laws of the agricultural co-operative" (Agricultural Co-operative By-Laws, 1976).

With regard to the role of the co-operative supervisor, article No.3 of the by-laws States:" The Directorate General of the co-operative may appoint a supervisor to help in advising the management committee and to ensure that the decisions taken by the management committee are in accordance with the by-laws of the agricultural co-operatives."

In practice, the supervisors were the decision-makers. This was officially justified on the grounds that since the supervisors do not have voting rights, the members retained democratic control of co-operative affairs. However, the legal provisions passed by the Directorate General of Agricultural Co-operation indicated the extent of possible violations of the supremacy of the management committee in the decision-making process:

(i) Article No. 32 of the regulations issued by the supreme Agricultural Committee No. 49 of 1972 states that," The Ministry of Agriculture and Agrarian Reform possesses the

right to supervise and to suspend any decisions taken by the agricultural co-operatives within fifteen days if the decisions are determined to be in conflict with the aims and interests of the country.” (Husni, 1976).

(ii) Article No. 53 states, “The Ministry of Agriculture and Agrarian Reform has the power to dismantle the agricultural co-operative.”

(iii) Article No. 2 of the regulations issued by the Supreme Agricultural committee stated that, “The Ministry of Agriculture and Agrarian Reform has the right to appoint three members to the General Committee of the Agricultural Co-operative.” It is obvious from these regulations that the supremacy of the management committee was jeopardized by the co-operative laws and regulations, leaving very little authority to the co-operatives to practice real decision-making.

The governments in Iraq during the period 1958-1975 expressed no clear intention to end its interference in co-operative affairs to enable the co-operative members to realize the economic benefits conferred by co-operation. The significant increase in the number of co-operatives during the period 1958-1975 (from 22-1,652) was motivated by political consideration to control the rural population. For example, the Baath Party Farmers Bureau influenced the elections of the co-operatives councils by nominating members who were either party supporters or party members. The Baath party during the seventies was determined to enhance its presence in the rural areas to match the growth of party cadre in the urbanized areas. Thus, in reality, the government effectively controlled these co-operatives for its own political objectives and democracy was postponed.

c. Attitude to Political and Religious Neutrality

Although neutrality in politics and religion has been considered a long-established tradition within the co-operative movement in the west, evidence is available to substantiate the view that some co-operatives have ignored this convention. Their political stance, moreover, has not always conformed to the dominant government ideology. In Iraq, co-operatives are confined within the ideological parameters set by the government for the following reasons:

(1) The formation of land reform co-operatives was accelerated by the government after 1958 coup d'état because it recognized the urgent need to restructure the new productive relations created by the displacement of the feudal land tenure system.

(2) The successive military regimes that followed during the sixties probably consciously imitated the Egyptian pattern of land reform by enhancing the establishment of these co-operatives. Furthermore, intent on quickly stabilizing the political situation, it realized the importance of capitalizing on this area of ideological control.

(3) The Baathist state accelerated the growth of the co-operatives during the seventies (from 786 in 1970 to 1,935 in 1978) mainly to implement its political goal of Baathization of all rural organizations (including co-operatives).

The most significant change that threatened the co-operatives was the declaration at the Eighth Conference of the Baathist party, in 1974, that, "All co-operatives are potential collective farms." Over time, however, the state collective farms accumulated losses. This coupled with the Iraq-Iran war, drained financial resources to subsidize agriculture and the government decided to abolish them in 1981. In 1987, another radical

shift of policy was adopted when the government declared a privatization policy and followed this up by selling or leasing state farms to the private sector.

Judging by the principles discussed here, co-operatives in modern Iraq are far from being genuinely spontaneous organizations. The only justification for an interim period of government control in this sector lies in the hope that this will be utilized for strengthening internal forces for autonomy and for further self-organization. Assuming that increased agricultural productivity is the main thrust behind land reform, co-operatives should function as instruments designed to develop the autonomous capabilities of the farmers, and not to be viewed as institutions subject to bureaucratic control. In the absence of concentrated government strategy favoring the growth of autonomous capabilities on the part of the members of the co-operatives, agricultural productivity is likely to be adversely affected, in turn damaging the viability of the co-operatives as an institution for stimulating growth and development. With the collapse of the Baath regime in April 2003, there is the possibility that co-operatives if revived will play their traditional role of achieving economic viability and independence in the long-run.

Concept and Determination of Efficiency

The literature concerning measurement of co-operatives efficiency suggests that there is a difference between the concept of efficiency and effectiveness. Effectiveness is the word generally used in discussing results in relation to means used in achieving them and against the background of the aims and goals of the activity. The effectiveness of a co-operative is thus the degree to which it fulfils its aims, as they have been set for the movement. The concept of efficiency is closely associated with the idea of productivity,

that is, the relation between the results- or achievements- and cost incurred. C.G. Widstrand emphasized the possibility that co-operatives may be economically efficient without necessarily being effective. On the bases of the results of Widstrand's study of some East African co-operatives, it was shown that only a minority of the members profited from the overall economic efficiency of the organization.

The concept of efficiency is a relative one as it is tied up with time, place and circumstances. Widstrand adopted a broad concept of co-operative efficiency by examining the factors that determine efficiency in co-operatives and how co-operatives can contribute to social development (Widstrand, 1970). While Widstrand's analysis identifies what he considers to be the prerequisites for co-operative success it lacks specific details on how the component factors can be measured. By comparison, a group of F.A.O. stated in a consultative report concerning problems of African co-operatives that, "The ultimate factor in measuring efficiency is the amount of net remuneration which farmers desire from their membership in the co-operative movement, and co-operatives are expected to obtain higher gross returns on the market...and to have lower operational costs in view of the larger quantity they handle. Consequently, since such efficiency is determined by the cost-return ratio, it is important to analyze the various factors having a bearing on costs and returns" (F.A.O., 1970).

In attempting to apply this approach to Iraq's Land reform co-operatives, there are the following difficulties; there was a lack of basic data concerning the activities of the agricultural co-operatives and the relevant government departments. Iraq's Land reform co-operatives never had an opportunity to develop beyond an early phase and may have lacked the essential requirements for successful operations. In addition, there was

the special difficulties of assessing the economic performance of co-operatives, which are substantially controlled by the government. It has been argued that, “When co-operative societies enjoy substantial government support, their economic performance cannot be rationally assessed. This applies even if the amount of direct and indirect government assistance can be measured, for a most important advantage of a policy of official support is the knowledge that more help can be expected from the familiar source, and the government will not be in the position to refuse help in the case of need, even if it might wish to refrain from helping” (Bauer, Yamey, 1963)

This argument is based on the expectation that government support will be a permanent feature of the co-operative sector and ignores the possibility that this support might be withdrawn once the constituent co-operatives have matured sufficiently to enable them to rely solely on internal resources for further development.

In the remainder of the chapter different approaches to measuring the efficiency of agricultural co-operatives are discussed.

Efficiency with Regard to the Objectives of the Members

Robert Wittgen attempted to measure efficiency as the average degree of achievement of the individual members’ objectives. His study is based on the following assumptions:

- (1) A co-operative enterprise has the sole objective of promoting the interests of its members;
- (2) Each member is able to formulate his own set of objectives and to measure the success of the co-operative enterprise in terms of these and the degree to which they are achieved (Kuhn, Stoffregen, 1975).

In the attempt to measure the efficiency of Iraq's Land reform co-operatives we need to consider the following:

- (1) The small amount of authority exercised by the co-operative management committees in the decision-making process due to the highly centralized supervision of the Directorate General of Agricultural co-operatives,
- (2) The extent to which members of Land reform co-operatives In Iraq are prepared to sacrifice non-material satisfaction or to deviate from accepted moral values and norms of social behavior in order to obtain private material gains.

With regard to the second of these points, a study of six Iraqi villages covering the period 1968 to 1973 showed that on average farmers allocated 1000 Iraqi Dinar annually to social and religious activities, whereas their annual allocation for investment purposes was only 825 Iraqi Dinar, (Rashid, Ajam, 1973).

Thus apparent conflict existed between the satisfaction of economic and non-economic objectives in the traditional peasant society of rural Iraq. The common villager regards expenditure on social and religious activities as an important means of achieving greater respectability, which is a fundamental social objective in rural Iraq.

Management Efficiency as a Criterion of Co-operative Efficiency

The success or failure of a co-operative is widely acknowledged as being closely linked to the character and ability of its management. The reason most frequently stated for failure among co-operatives is "inefficient management" (Gupta, 1961). According to Dulfer, however, "the particular connection of co-operative programs with certain social

and ‘meta-economic’ aims may condition special ways of management, different from those others economic enterprises. In fact, the problems are all the more complicated as a consequence of the multiple aims; but the degree of rationality must never be less, and the logic of decision-making must be the same” (Dulfer, 1970).

The following elements need to be considered in assessing the validity of such an approach in the case of Iraq’s Land reform co-operatives. First, a distinction must be drawn between the bye-laws and their actual application at management level. According to the Bye-laws of the Land reform co-operatives in Iraq, “The agricultural co-operative must have a management committee elected by the general assembly to carry out the functions and affairs of the co-operative in accordance with the bye-laws” (D.G.A.C., 1970).

As far as the supervisor’s role is concerned, Article No.3 of the same bye-laws stated that, “The Directorate General of the co-operative may appoint a supervisor to help in advising the management committee and to ensure that the decisions taken by the management committee are in accordance with the bye-laws of the agricultural co-operative” (Ibid, 1970).

In practice, the supervisors of the co-operatives were the decision-makers; the resolutions were merely signed by the members of the management committee after a decision had been taken by the supervisor alone. According to a study presented at the Co-operative Conference in July 1975, in Altameem Province, 36 percent of management committee members usually signed after the supervisor alone had taken a decision (Husni, 1976). Consequently, co-operative management efficiency in Iraq is likely to depend to a certain degree upon the

qualifications of the supervisors and the responsiveness of the D.G.A.C. rather than upon the management skills of the members of the management committee.

Generally, the supervisors were graduates of agricultural high schools and were recruited to this position after completion of a six to eight-month pre-service training period at the Institute of Co-operation and Agricultural Extension. The activities of the supervisors are reviewed by co-operatives inspectors responsible to the head of co-operative organization at branch level. The D.G.A.C. has a major influence in the decision-making process and exercises the final authority in all substantial matters. In addition, it is important to consider the influence of other government organizations such as the Organization of Grain in decisions concerning the marketing of wheat and barley and the Agricultural Co-operative Bank concerning credit. Thus, as a general conclusion in the case of Iraq, it is not as widely acknowledged that success or failure of a co-operative can be directly correlated with the character and ability of its management. The efficiency of co-operatives is to a great extent determined by the political and socioeconomic environment and the specific circumstances in each case. D.G.A.C. had a major influence in the decision-making process and exercised the final authority in all substantial matters. In addition, it is important to mention that, majority of the co-operatives supervisors were burdened by extensive administrative duties due to lack of adequate trained supervisors. For example, in 1974 there were two societies for every supervisor (Ferhan, 1974). It is necessary to consider also the political influence of other organizations such as the Baath Party Farmers Bureau.

The Baath Party Farmers Bureau influenced and controlled the election of the administrative councils of all land reform co-operatives. The significant increase in the

number of co-operatives during the period 1969-1975(from 608 to 1,652) was not motivated by economic objectives but rather the need of the Baath party to reinforce its political objectives to insure firm control on rural organizations.

In addition, it is important to consider the influence of other government organizations such as the Organization of Grain in decisions concerning the marketing of wheat and barley and the Agricultural Co-operative Bank concerning credit. Thus, as a general conclusion in the case of Iraq, it is not as widely acknowledged that success or failure of a co-operative can be directly correlated with the character and ability of its management. The efficiency of co-operatives is to a great extent determined by the political and socioeconomic environment and the specific circumstances in each case.

Summary and Conclusion

The literature on co-operative theory exhibits a significant amount of controversy. The controversy centers on the objectives and nature of a co-operative organization. It has been recognized that a co-operative can be organized for variety of purposes and reasons. However, the role and objectives of co-operatives can differ according to various schools of thinking. Many governments in developing countries considered agricultural co-operatives as tools to achieve rural development. The Iraqi land reform co-operatives experience reflected the fact that these co-operatives were controlled administratively and financially by the state and they were confined within the ideological parameters set by the Iraqi government. Thus, judging by the traditional principals of co-operation, co-operatives in modern Iraq were far from being genuinely spontaneous organizations.

As far as efficiency is concerned, the Iraqi land reform co-operatives relied heavily on the government supervisor's managerial capabilities rather than the managerial skills of the co-operatives committees. The Iraqi land reform co-operatives were not motivated by achieving efficiency or profits objectives but rather the need of the state to reinforce its political objectives to insure firm control on rural organizations.

Chapter Four

The Historical Experience of Egypt, Iran and Russia in Agricultural Co-operation and Its Impact on Rural Development

The purpose of this chapter is to discuss the experience of several countries that either influenced directly or indirectly land reforms co-operatives policies in Iraq starting in the fifties and through the sixties and the seventies.

The experiences of Egypt, Iran and Russia were chosen for the following reasons: Iraq's policy makers were highly influenced by Egypt when formulating the first Land Reform Law of 1958. The success of the Egyptian Land Reform initiated with Nasser's regime of 1952, spurred Iraq to adopt its own program. The Iranian experience was chosen for analysis because its agricultural co-operatives provide an example of one level of success. Moreover, Iraq and Iran, although at different stages of economic development use to share the following characteristics:

1. Both countries have experience changes in their land tenure systems;
2. The two countries shared a philosophy that recognizes the necessity of achieving agricultural development;
3. Both countries have adopted co-operatives as an integral tool in promoting agricultural growth.

The Russian experience is examined because of its influence on the Iraqi movement towards collectivization in 1970. The policy of adopting collectivization was a result of the Baathists' reconciliation with the local communist party at that time and to gain the Russian support for the regime.

The Role and Function of Co-operatives in the Post Land Reform Situations

The broad objectives of Land Reforms carried out in many developing countries during the 1950s and 1960s particularly in the Middle East and North Africa were to achieve a more equitable distribution of land. This corresponded to the interests of the landless farm people. Many developing countries assumed that land expropriation and redistribution would result in improved agricultural production and provide the basis for agricultural development.

Historical experience in Land Reforms, however, has shown that radical changes in land tenure without sufficient planning and support facilities to fill the void created by the removal of the old landlord system can damage agricultural productivity. This vacuum is often a direct result of lack of administrative skills on the part of government agencies coupled with a political and economic uncertainty, which surrounds such measures.

As J. Timmons stated, “There are two major ways whereby land tenure institutions may violate the necessary incentives for a cultivator to improve his productivity, assuming that he possesses sufficient knowledge and capital. There is uncertainty regarding his future control over the land resources, and certainty that he will not be rewarded in proportion to the effort he expends in using his resources. Consequently, he is motivated to use his inputs for short-run production efforts or for consumption purposes, and thus his productivity is reduced” (Timmons, 1971).

Co-operatives have been considered by many governments in developing countries to be viable instruments to fill the vacuum left by elimination of the old landlord system and facilitate achieving agricultural development. A World Bank study

concluded that, “Without Land Reform and other substantial program transforming the basic socio-economic structure of life, co-operatives and other rural organizations are not likely to survive or to grow into a significant movement. On the other hand, without adequate post-reform co-operative models of resource and social organization, land redistribution is not likely to have a lasting effect on the production and welfare of peasants. Thus, Land Reform and peasant co-operatives are functionally linked, and together provided an institutional framework with which the multiple goal of rural development can be achieved” (World Bank, 1976).

According to Pieer J. Van Dooren, the establishment of co-operatives can be useful in the following circumstances:

1. Although production or distribution potential exists in principle, realization is difficult because of a lack transport, credit, purchasing and marketing organizations and the non-supply of the means of production. In such cases, co-operatives can fulfill these functions.
2. When any of the above-mentioned services are available but are undependable or expensive, because of high profits for middlemen, co-operatives can provide the necessary remedy. Since a co-operative does not aim for profit, only the costs of purchase, distribution and credit, where relevant, are taken into account.
3. The economies of scale, applied to both selling, as a group and the purchase of raw materials in large quantities are benefits to be derived through co-operative efforts.
4. When new methods of irrigation, and land reform projects are to be tried; when previously untried means of processing produce are applied; and when new organizational structures are used in the context of an area development plan, co-

operatives can provide information, education, guidance, motivation and training to members (Van Dooren, 1981). In the following sections, the role of the co-operative in the land reforms of Egypt, Iran and Russia will be analyzed.

The Egyptian Experience in Land Reform and Agricultural Co-operation

The Pre-Reform Agrarian System

The most important feature of Egypt's agrarian structure before the regime of July 1952 was the heavy concentration of land ownership. In 1952, the very big landowners (owning over 200 Fedans- Fedan is equal to 1.038 acres) represented less than 0.1 percent of the total number of landowners, and possessed about 20 percent of the cultivated land; large and medium-sized landowners (over 5 Fedans) together possessed about 65 percent of the cultivable land. At the other end of the spectrum, only about 35 percent of the total cultivable land was owned by the great majority of landowners, i.e. 94.4 percent (Amer, 1958). Some of the most notable institutional defects of the agrarian structure in Egypt were: monopolization of credit, particularly short-terms, by the large landlords, while peasants (who constituted the vast majority of the Egyptian population) had virtually no access to the modern credit market. Small landowners and tenants were therefore compelled to turn to village moneylenders, merchants and brokers who extorted interest rates often exceeding 100 percent per annum (Saab, 1967). Moreover, heavy speculation in the rural land market had resulted in significant increases in land prices without actual increases in land productivity. According to J. Oweis, "In general, land in Egypt was not valued for its income-generating capacity alone. Its possession stood as a symbol of social prestige and a form of political power" (Oweis, 1971).

The monopoly power of big landlords resulted in payment of exorbitant rents by peasants. Rents between 1948 and 1952 varied according to region, but were so high that they absorbed 75 percent of the net income per Fedan, leaving hardly anything for the tenant or the sharecropper (Saab, 1967).

Land reform was the first radical measure taken by the new regime of 1952. The Higher Committee for Agrarian Reform classified the objectives of the law into either long-range or those directly linked with the welfare of those engaged in agriculture. The long-range objectives were:

1. To direct every new investment into industrial and commercial activities by setting a maximum limit on the amount of land ownership;
2. To encourage land reclamation by permitting holders of fallow or desert land to own as much as they were willing to attempt to reclaim;
3. To create a new class of small landowners from the peasantry who were not dependent on their landlords for their livelihood and political opinion;
4. To prevent any further fragmentation of the small-sized holdings.

Objectives directly linked with the welfare of those engaged in agriculture were:

1. To abolish the feudal system by expropriating the land in excess of maximum ownership limit;
2. To return the land to its tillers by redistributing the expropriated land among those who actually cultivated it;
3. To improve living conditions of farm people by establishing co-operative organizations for the small owner;

4. To provide for a more equitable division of income between landowners and tenants by fixing a maximum limit for land rent;
5. To provide security for tenants by fixing a minimum term for land leases; and,
6. To insure the rights of agricultural laborers by fixing their wages and permitting them to form trade unions (Gaddalla, 1962).

Provisions of the First Land Reform of 1952

The most important provisions of the First Land Reform were: setting the maximum limit of land ownership at 200 Fedans for a single person, with 100 Fedans extra allowed for his dependent children, provided that the total did not exceed 300 Fedans. Any land held in excess of this was to be requisitioned and redistributed by the state to small farmers, tenants and laborers. Landlords with excessive land were compensated in the form of non-negotiable government bonds bearing 3 percent interest and redeemable in thirty years. The expropriated land was to be distributed within a period of five years among small tenants and farmers owning less than five Fedans of agricultural land. The distribution was made in plots of two to five Fedans, depending upon the fertility of the soil and the size of the beneficiary's family. The government sold the expropriated land to the new beneficiaries who were to pay for it in equal installments over thirty years (Merei, 1954). The expropriated land available for distribution totaled more than half a million Fedans. The redistribution of land according to the First Land Reform Law involved no more than 8.4 percent of Egypt's total cultivated land.

Regarding the general impact of the law, D. Warriner stated,

“The improvement in income and legal status for a very large section of the farm population is by far the most valuable achievement of the reform, greatly exceeding in importance the benefit of distribution” (Warriner, 1962).

Hence, the most significant impact of the First Land Reform Law was on tenancy regulations, which included the reduction of rents and the legal protection of tenancy, which affected large segments of the rural population.

The Second Land Reform of 1961

Dramatic changes in economic and fiscal policy were announced on July 21, 1961. The bulk of Egypt’s industry and commerce was nationalized. On July 26, 1961, due to a new radicalization drive, a second Land Reform Law was declared (Law No. 127 of 1961), lowering the limit for a single owner to 100 Fedans. Under the new law, the redistributed lands were sold to new beneficiaries at a price equal to half the value of the lands as assessed for compensation. Interest charges and payments for government expenses were also abolished (Oweis, 1971). These new concessions were extended to all beneficiaries under the First Land Reform Law of 1952. As a result of implementing the Land Reform of 1961, the total acreage of small ownership (less than 5 Fedans) reached 57 percent of the total cultivated area (Abdel-Fadil, 1975).

The Third Land Reform of 1969

In 1969, a new Agrarian reform law (Law No. 50 of 1969) was promulgated, stipulating that no person to possess more than 50 Fedans. The new law also included articles, which stated that the indemnity was to be paid in cash in ten annual installments with no interest to be paid to the owners. This differed from the procedures provided by previous Land Reform laws, which made the indemnity payable in interest-bearing state bonds redeemable within a much longer period. A comparison of the structure of ownership in 1952 with that in 1965 reveals that by 1965 about 671,000 Fedans had been distributed in full ownership to small landowners as a result of the 1952 and 1961 land reform measures (Mabro, 1973). However, according to M. Abdul-Fadil, “The area finally transferred from big landowners to small landowners as a result of the agrarian reform measures was much greater. According to our estimates the area sold by big landowners to small farms (as a result of) provisions of Article 4 of the 1952 agrarian reform law (enabling landlords to sell land in excess of the ceiling to their tenants in small plots not exceeding 5 Fedans), amounted to 107,000 Fedans. Moreover, about 453,000 Fedans had been sold to small farmers by land reclamation organizations and companies” (Abdul-Fadil, 1975).

Development of Agricultural Co-operation

Agricultural co-operative societies in Egypt date from 1908. By 1923 the National Assembly had passed legislation covering the establishment and operation of agricultural co-operatives, and the government actively sought to encourage the co-operative movement. Just prior to the 1952 regime, there were over 1,700 co-operative societies specializing in agriculture with nearly 500,000 members. However, these co-operatives

served the needs of the large landlords and were ineffective in providing small farmers with adequate services to increase production or income.

The First Agrarian Reform Law of 1952 made it obligatory for all land reform beneficiaries in any one village to form a co-operative society amongst themselves. Over a period of twenty years, from 1952 to 1972, agricultural co-operatives tripled in number while their membership increased six-fold and their capital, twelve-fold (Radwan, 1977).

The Objectives of Agricultural Co-operation in Egypt

The Egyptian Agrarian reforms stipulated that agricultural co-operatives were to provide the land reform beneficiaries with the following services:

1. Advancing loans in cash and kind
2. The supply to farmers of various types of equipment and help for the adequate cultivation of the expropriated land. This consisted of supplying selected seeds, fertilizers, insecticides, livestock and poultry, agricultural machinery and storage facilities for crops;
3. The organization of efficient cultivation and land use and, in particular, the introduction and enforcement of consolidated triennial crop rotation; the supervision of farm operations; the application of the fertilizers distributed; the maintenance of the buildings co-operatively owned; the regular upkeep of the irrigation drainage; and, internal road network;
4. The sale of members' crops after deduction from the price (whenever necessary) of sums due on the purchase of the land, land taxes and for settlement of the various loans in kind and in cash made by the co-operatives;

5. The undertaking of all other agricultural and social services required benefiting members (Gadalla, 1962).

Government Motives in Encouraging Agricultural Co-operatives

One of the government's reasons for promoting co-operatives was to ensure a minimum level of efficiency in production by encouraging the use of large-scale methods of farming for small farms. This was achieved by dividing the land in each village into three large blocks, each 50 to 100 Fedans, and introducing single crop rotation. The beneficiaries of this co-operative farming system were then allotted a holding in three pieces (i.e. one in each block), so that one would be under cotton, another under maize, and a third under clover. Second, the government wanted co-operatives to become the primary channel through which the state would deal with farmers, particularly in matters concerning the control of agricultural surplus. According to Hansen, the introduction of the co-operative system in land reform areas in Egypt was directly copied from the British Gezira project in Sudan, and was adopted as a clever way to combine large-scale advantage in irrigation, crop rotation and marketing with small-scale production and private imitative (Hansen, 1972).

The Structure of the Egyptian Agricultural Co-operatives

The agricultural co-operative structure in Egypt is headed by the General Co-operative Organization, which is the body responsible for the establishment of the co-operative system through the promotion of a nationwide co-operative program and

policy, the provision of the requisite technical and financial help to the local co-operative organizations, and the supervision of their activities.

The base of the co-operative structure in Egypt is the local co-operative branch, which embraces all the co-operative members at the village level. Each village co-operative branch has a board of five people elected by the members of the co-operative through a secret ballot. If the co-operative branch includes more than one village, this board must include at least one member from these outside areas. Each board member is elected for a three-year term. The formal duties of these board members include: (1) directing the activities of the co-operative branch within the guidelines of the general co-operative plan, (2) appointing and supervising the staff of the co-operative upon approval of such personnel by the Director of the Co-operative at the govern orate level, (3) organize and direct the necessary committees needed to implement the local agricultural program, (4) provide the supervision needed to implement the accounting and record keeping activities of the co-operative, and (5) prepare and submit an annual report on all activities, profits and losses, the disposition of on-going projects and a general summary of the year's agricultural production for the co-operative branch.

Each co-operative branch was provided with a trained agricultural supervisor (mushrif), who was usually a graduate of a local agricultural college, an accountant for the disbursement and the collection of loans, and a clerk for administrative matters and storekeeping. The supervisor was especially responsible for the pattern of crop rotation in the village area, the field layout and organization of agricultural work scheduling, and the allocation of farm equipment. The members of each co-operative branch had both collective and individual responsibilities in areas assigned to the co-operative branch.

Since the agricultural supervisor had the final authority in all matters pertaining to agricultural production in his area, which was assigned to him by the Ministry of Agriculture through the Director of Agriculture in each governorate, the co-operative board acted as an advisory group providing an institution through which the agricultural supervisor presented government policy to the local peasant community and through which the leaders communicated their problems and suggestions.

Immediately above the village level co-operative branch was the combined co-operative of the district level. Each district (there were 122 in Egypt) had a co-operative organization that included one representative from each co-operative branch. This combined co-operative at the district level, headed by an agricultural specialist selected by the Ministry of Agriculture, provided an entire series of services to the local branches including: coordination and implementation of all national agricultural programs and policies, marketing of crops and livestock, management of co-operative training centers, and supervision of the smallholding consolidation program.

At the next level, up was the governorate general co-operative organization, having under its aegis all the combined co-operatives and co-operative branches in the governorate. At this level the Director of the General Co-operative organization was responsible for the provision of large-scale supplies for the co-operatives, the establishment of co-operative agricultural mechanization stations, the supervision of pest-control programs, and the formation and implementation of general policy for co-operative marketing, plus specific administrative and personnel responsibilities for all employees of the co-operatives in the governorate.

Management of the Local Co-operatives

The local co-operative was managed by the Board of Directors, under the supervision of a so-called Mushrif Ta'awuni (co-operative supervisor), appointed by the Agrarian Reform authorities. The members of each board were elected by all beneficiaries and tenants sitting in the General Assembly of their co-operative. In theory, the supervisors were appointed by the board of directors of each local co-operative, acting on the suggestions of the co-operative administration set up by the agrarian reform authorities in Cairo. In practice, the appointment of the co-operative supervisor was left entirely to the Co-operative Administration in Cairo, which imposed its own choice on the co-operative board, which automatically approved it (Gadalla, 1962).

The co-operative supervisors were assisted by an expert on co-operation who advised on all matters pertaining to rural co-operation. Though the chairman of the board with a secretary and a treasurer, in principle assumed extensive powers, it was in fact the supervisor who effectively managed the co-operative. The supervisor was under the strict control of the agrarian Reform authorities and thus had to comply with the instructions issued by the Co-operative Administration. It is interesting to note here, that in the initial phases of the Land Reform, the co-operative supervisor was often the former landlord's manager. Thus, there was considerable continuity of personnel initially, with the old supervisory staff of the estate continuing on the job, now paid by the government instead of the landlords (Richards, 1982).

Size of the Agricultural Co-operatives

The co-operative is generally large, the usual size being around 1,000 Fedans, with a membership of about 300. M. Darling expressed grave doubts about the future of

these co-operatives. He stressed that effective co-operation would probably have been more appropriate to establish small co-operatives of 100 members, such as those set up in the Italian Mermma region or the voluntary co-operatives in the Tuscan village of Borgo a Mazzano (Saab, 1967). However, according to G. Saab,” The question of size was directly related to the problem of efficient farm operation and the rational disposal of crops, both of which could only be solved economically by dividing the lands wherever possible into operational units of about 1,000 Fedans. The complexity and intricacy of the imperative necessity for consolidated crop rotations, the vital importance of effective pest control, the provision of adequate agricultural credit, and the collect of sums due to the co-operatives together with the rational disposal of crops by a centralized marketing agency are some of the arguments in favor of the large Egyptian Agrarian co-operative. Moreover, the breaking up of the large co-operative would have necessitated many more agronomists with full knowledge of co-operative affairs, a practical impossibility in Egypt during the first seven years of Agrarian Reform” (Saab, 1967).

The following sections summarize the function performed by Egyptian agricultural co-operatives, with special reference to credit, marketing and mechanization services.

1. The Allocation of Rural Credit through the Co-operatives.

The Agricultural Credit Bank was established in 1931 as a semi-public institution in order to provide credit to farmers and their co-operatives. The government provided the bank with one-half of its share capital and with loans at low interest for its working capital. In 1948 the Bank was expanded and renamed the agricultural Credit and Co-operative Bank in an attempt to increase its operations and assistance to farmers' co-

operative societies. The rate of interest charged by the bank was 5 percent on loans given to individuals and 3 percent on loans provided to co-operative societies. The activities of the bank with respect to co-operatives continued to be limited (Basheer, 1967). Because the Bank required land mortgages as security for its loans, this excluded most of the farmers who were tenants and owned no land while benefiting the landlords (Eshag and Kamal, 19670).

Significant changes in the agricultural credit policy occurred under the new regime of 1952; one important change was the reduction in the power of private money lenders. The Agricultural Bank received instructions from the government to promote co-operatives and progressively to restrict its dealings with operators not participating in co-operatives. As a result of this measure, loans granted by the Agricultural Bank to co-operatives rose from 20 percent in 1952 to 41.17 percent in 1957(Gadalla, 1962). A new policy involved the advancement of loans to co-operatives using crops instead of land as a security. In 1961, all loans from the Agricultural Co-operative bank were issued free of interest, although interest on loans was reestablished in 1967 and fixed at 4.5 percent. In 1964, the government decided to convert the Agricultural and Co-operative Credit Bank into an organization for Agricultural and Co-operative Credit responsible for achieving central planning of agricultural and co-operative policy within the framework of general state policy; for supplying the funds necessary for the extension of such credit; and for providing the necessary prerequisites for agricultural production. The offices and branches of the Agricultural and Co-operative Credit Bank in various provinces were consequently transformed into provincial banks for agricultural and co-operative credit under the supervision of the new organization. Moreover, closer links were established

between the co-operative societies and these banks, leading to an integration of the system of rural credit and the system of co-operative marketing of agricultural produce (Fadil, 1975).

Basic Features of the new Rural Credit Policy

One distinguishing feature of the new rural credit program was the emphasis on short-term loans in kind, involving seeds, fertilizers, insecticides, etc, made to each farmer based on the type of crops planted and farm size. The amount of cash loans allocated to each farmer was determined by the farmer's cash outlays in production. The volume and value of short-term loans in kind and in cash had increased more than twenty times during the period 1952 to 1966(Fadil, 1975). This great growth was reflected in the great increase in crop yield during the same period. In addition to short-term loans, medium-term loans, repayable in 5 to 10 years, are also advanced to farmers for the purchase of agricultural machinery and cattle, and for land improvement operations. According to Eshag and Kamal, the medium-term loans, which represent about 2 percent of the total agricultural credit, have been utilized by bigger land holders and capitalist farmers who are likely to undertake these type of relatively expensive investment projects (Eshag and Kamal, 1967). While the co-operative fiancé contributed to increasing the fixed assets of such farmers, through subsidized medium and long-term loans, it is equally important to note that the rural credit policy according to Fadil, "Has succeeded in weakening the hold of usurers (i.e. village money-lenders and the village cotton brokers who would buy crops in advance at a big discount from small landlords) which was so strong in Egypt before 1952. Increases in the volume and changes in the terms of

rural credit are among the most important achievements of the new scheme” (Fadil, 1975).

2. Marketing through Co-operatives: Objectives and Achievements

Objectives

The main objectives of Egypt’s co-operative marketing of agricultural crops were to:

- a. Secure fair prices for farmers and to protect them against the high margins charged by merchants, dealers and middlemen.
- b. Secure a systematic and regular flow of produce from areas of production to consumer and export corporations.
- c. Provide a mechanism for controlling credit repayment by farmers (Basheer, 1967).

Motivation for the mobilization of agricultural surplus is enhanced by government policy. By increasing the peasants’ fixed money obligations and consequently their need for cash, the government ensures that more surplus is marketed. P. Sanghvi notes that the amount marketed varies directly with the degree of the peasant’s indebtedness to the state, and more generally with the peasants’ need for cash to meet their fixed money obligations (Sanghvi, 1969).

Government Measures and Marketing through Co-operatives

Various Egyptian governments have utilized two basic measures to ensure that a maximum of the marketable surplus was diverted through the co-operative system. First, the system of co-operative marketing was extended to cover the most important crops,

such as cotton, rice, onions, potatoes and groundnuts. Secondly, the delivery of several selected crops was punctually enforced through a system of “compulsory deliveries” (Fadil, 1967). In fact, until 1960 crops such as rice or onions were rarely marketed through co-operative channels. By 1965, the agricultural co-operatives played a significant role in marketing these and other crops. It is important to note here that a fairly wide range of agricultural produce and livestock products were marketed mainly through private channels, under government supervision, but with little direct intervention in price setting.

The System of Compulsory Deliveries

In the early 1950s, Egypt introduced a system of compulsory deliveries of wheat. The farmer had to deliver to the state procurement agencies part of their production of the wheat crop at “administered” prices through the medium of “allocated quotas”. The system was extended in 1965 to cover part of the output of rice and onions. The “allocated quotas” of different crops to be delivered and their prices have been fixed by the state on an annual basis. According to A. Salem, the prices for compulsory deliveries were fixed at a level lower than that which can be obtained in the free market. Such a difference in prices may well be regarded as an “indirect tax” (Salem, 1968).

Price Policy and Marketing through the Co-operatives

The prices of the major agricultural crops (with the exception of onions) remained relatively stagnant throughout the first half of the 1960s, and it was only from the mid-sixties onwards that the prices of rice and cereals showed a substantial increase. However, several studies demonstrated that cotton prices did not provide farmers with adequate incentives to increase production. It has been estimated that the total financial

contribution of agriculture to the state treasury amounted to 16.4 percent of the total agricultural income during the period 1965 to 1970 (Sheira, 1970).

Fadil concluded that co-operatives effectively became a means of taxing agriculture indirectly. The transfer of income from agriculture to the state treasury due to the manipulation of agricultural prices and export duties on farm produce was estimated at about L.E. 330 million during the period 1965 to 1970, which is equivalent to a 10 to 11 percent tax on farmers' income (Fadil, 1967).

However, it is important to note that the government not only subsidized most of the agricultural inputs but also allocated considerable funds to agricultural sector in the form of public investment in irrigation, flood control, etc. In 1974, the government increased farm subsidies to stimulate production of various products. In addition, the government's effort to influence the composition of agricultural production also included the distribution of selected seeds and chemical fertilizers (Myfield, 1974).

A comprehensive study conducted by H. Askari, J. Cummings, and B. Harik, demonstrated that Egyptian farmers displayed a consistent shift toward greater market responsiveness in the post-land reform era (Askari, Cummings and Harik, 1974). Egyptian co-operatives were very effective in meeting the state objectives of expanding the flow of grain to urban areas and increasing the export of crops.

3. Agricultural Co-operatives and Mechanization

Objectives of agricultural mechanization

Egyptian policy makers have advocated the mechanization of all agricultural operations by 1990. Major external aid agencies, such as the World Bank, assisted in

this effort. Mechanization advocates anticipate the following major benefits: higher farm income; increased land yields and the improved timeliness of agricultural operations.

The immediate concern of the government is to encourage the mechanization of these specific operations, water pumping, land preparation and grain threshing (U.S./AID, 1976).

Mechanization Services through Co-operatives

Under the crop rotation plan, co-operatives provided their members with such mechanized services as ploughing, irrigation (water pump) and threshing. Both capital and operating costs of mechanized operations are subsidized. In general, the rate of interest on tractor loans does not exceed 12 percent, and may be as low as 5 percent.

Roughly 50 percent of the international price of diesel fuel was subsidized to members of the co-operatives. Since hydroelectric power was already fully utilized, additional electric power for pumps and stationary threshers will soon have to come from the new gas and petroleum fired generating stations, which was under construction. Assuming that the opportunity cost is equal to the marginal cost of electricity at international prices, Egyptian electricity cost L.E .093 per kilowatt-hour in 1979, while users paid only L.E .015 per kilowatt-hour (Richards, 1982).

General Assessment of Mechanization

There was no data available to measure the effectiveness of the agricultural co-operatives in achieving the state's aim of mechanizing all farm operations in Egypt. However, the adoption of mechanization, which was accelerated since 1973, has had created some problems that plagued Egypt's agricultural co-operatives. Some of these

problems were a lack in spare parts and skilled mechanics and repair shops in rural areas. Bureaucratic procedures such as the requirements of some twenty to thirty signatures for spare parts delivery compound matters (Richards, 1982). Some claims for the benefits that accrue from mechanization include the following:

1. Less grain lost through mechanical threshing
2. Deeper ploughing results in healthier plants
3. Timelier planting

According to Richards, the first benefit was realized, while the second and third was debatable. The gains from better tillage was estimated at between five and fifteen percent, but some studies showed little or no increase (cotton and wheat) in yields from deep ploughing (Richards, 1982).

Mechanization and Labor

Studies on the impact of mechanization on the labor force in rural Egypt were scarce. One study carried out by the United States Department of Agriculture, minimizes the labor displacement effects of mechanization (Birks, Sinclair, 1978). It was difficult to assess the impact accurately since there was no adequate data on the state of the rural labor market nor information or studies concerning the opportunity cost of capital and the situation of the emigrant Egyptian labor (since a considerable number of Egyptians work in Arab Gulf countries, particularly in the construction industry).

Some Factors Contributing to the Success of Egypt's Agricultural Co-operatives

The Egyptian agricultural co-operatives contributed significantly towards achieving the land reforms' main objectives of eliminating the power of the large land – owning class and increasing agricultural productivity.

Egypt's agricultural co-operatives were more successful than Iraq's in increasing land productivity, due to the following features:

1. The great emphasis on co-operative development by the political leaders in Egypt. According to Tarik Al-Bishry, "The movement gathered momentum especially because of the support given to it by the nationalist leaders who regard the formation of agricultural co-operatives as an essential ingredient of economic emancipation, the prerequisite for political independence" (Al-Bishry, 1965).

2. The political stability of the regime in Egypt from 1952 to 1972, which ensured a constancy of objectives regarding agricultural co-operatives. In Iraq, the aim of the revolution of 1958 was to create small, privately owned holdings complemented by co-operatives. After the coup of 1968, the new regime discarded this policy and adopted one in which the final aim was to transform co-operatives into collectivized farms.

3. In the initial phases of the Egyptian Land Reform, the co-operative supervisor had often previously been the old landlord's manager. Thus, there was considerable continuity of personnel initially, with the former supervisory staff of the estate remaining on the job, although paid by the government instead of the landlords. In Iraq, the landlords' managers (Sirkals) were not utilized after the land reforms, thereby depriving the co-operatives of much needed expertise.

Other factors, which contributed to the success of the Egyptian Agrarian Reform compared to Iraq, were:

- A. The social structure in Egypt is more evolved and stratified than that of Iraq; thus, a more efficient bureaucracy was available to implement the program of agricultural development launched by the new regime of 1952.

B. According to Doreen Warriner, “The Egyptian agrarian reform appears to have been carried through with a high degree of administrative competence. In this respect, it compares well with other countries, even with the highly efficient reform in Italy” (Warriner, 1957).

C. The scale of land redistribution is not large compared to that of Iraq. Of Egypt’s total agricultural landmass of six million acres, 1,117,000 acres, or approximately twenty percent, was held in properties exceeding two hundred acres. About half of this total was scheduled for expropriation and redistribution so that land reform actually affects about ten percent of Egyptian land.

In conclusion, despite the fact that Egyptian agricultural co-operatives were controlled by the state, the success of the program rested on an important factor. The incentives of the co-operative members were, at least minimally, in accord with the government goal of achieving efficient, small-scale farming.

The Iranian Experience with Land Reform and Agricultural Co-operatives

Iran’s Farming Structure before the Land Reform

Before the land reforms of the 1950s, the rural population of Iran was stratified into large landlords, medium landlords, peasant proprietors, tenants and laborers. The large landlords, who were generally absentees, comprised less than one percent of the population, but owned about 60 percent of the total cultivable area. Their ownership consisted of anywhere from 5 to 100 or more villages. The medium landlords, who lived mostly in towns, comprised about 5 percent of the population, and each owned an average of one entire village in the fertile regions or several villages in the arid zones. Before the land reforms, about 10 to 15 percent of the rural population consisted of

peasant proprietors. More than 80 percent of the peasant population was composed of sharecropping peasants and landless laborers. The peasant generally provided the seed and agricultural implements in addition to his labor. The landless laborer provided only his labor and could be dismissed at will. In general, the landlords collected about 80 percent of the crop (Lambton, 1969).

Objectives of the Iranian Land Reforms

Land reforms were initiated during the 1950s by the Shah of Iran, who sold his personally owned land and state-owned lands, constituting 10 percent of all arable land in Iran, to the peasants (Whetham, 1968). The four main goals of the land reform were to abolish feudalism by breaking up major land holdings; to improve living standards and develop a rural constituency to replace the landed gentry; and to undertake, subsequent to land redistribution, a general program of agrarian reform to accelerate the agricultural growth rate and to raise per-capita income of farmers (Aresvik, 1965).

According to Hussein Mahdavy, "The real significance of land reform in Iran must be appraised as a political measure on the part of the government to gain the allegiance of the 'neutral' and still inarticulate peasantry to offset the growing opposition in urban areas"(Mahdavy, 1965).

Phases of the Land Reform

The landlords who controlled three quarters of the land did not follow the Shah's example. With the legislature dominated by landlords, whatever legal measures were proposed in 1960 encountered difficulties. Consequently, in 1962, when the landlord-dominated Majlis (parliament) had been dissolved, a new law was passed by decree of the Council of Ministers stipulating that each land owner could keep only one village or,

if they had shares in several villages, an aggregate of land adding up to the size of one village; any remaining land would have to be sold to the government which would resell it to the peasants. Each owner was given his choice of one village to retain; Payment was to take place over a fifteen-year period at about six percent interest. The surplus land was to be sold to those farmers who resided in the village, had farmed the land since before 1961, and who were willing to join a local co-operative. The peasants were to pay for this land in fifteen yearly installments at over a 10 percent interest. This phase of the land reform affected some 15,000 villages, out of an approximate 60,000 total. Land was distributed to 70,000 families.

The second phase of the reform was initiated in mid-1964. Land owners were given three options: to create thirty-year tenancies on their land, with cash rents based on earnings in the three preceding years; to sell their land to the village farmers; or to divide their land between themselves and village farmers in accordance with the customary landowner's share (Lampton, 1971).

The third phase of land reform began in 1968. The 210,000 landowners with tenancy agreements, covering 1.1 million farms, had to sell their land to the tenants or divide the land. In fact, phase three reduced the landowner's options to either reselling or dividing. Additional measures included support for rural co-operatives through the Central Organization for Rural Co-operatives and the Agricultural Co-operative bank. In 1966, the government introduced a new centralized approach. The aims were: the expansion of agricultural output required for the industrial development of the country, a rise in the per capita standard of living of the peasantry and the stabilization of food

prices through improved marketing and production techniques (Amuzegar and Fekrat, 1971).

During this phase of the reforms, the government attempted to extend its control over a large part of agricultural production. Some of the distributed land was taken over by government-controlled farm corporations with displaced peasants as shareholders. By 1973, 15 percent of the total cultivable land was owned by agric-business and farm corporations who employed three percent of the total rural labor force. By 1976, 85 corporations had been formed, controlling land surrendered by 32,500 peasants (Afshar, 1981). The new regime of 1978 (its slogan, “land to the tillers”) proposed the elimination of all large private holdings and allocation of land to each cultivator.

Development of Co-operatives in Iran

History and Ideology

The co-operative movement in Iran was relatively slow in taking root and development did not gain momentum until 1960. Prior to the Land Reforms period, there were about one thousand co-operative societies in Iran, promoted mainly by the Agricultural Bank to facilitate the administration of its loans.

According to a study conducted by the United Nations Research Institute for Social Development, the co-operative movement in Iran, “...as it is at present constituted (1972) is essentially bureaucratic, having been conceived at the top and filtered and diffused through government machinery. Unlike, in the West, where co-operatives developed on their own initiative, the government in Iran started with the establishment of the Central Organization of Rural Co-operatives (CORC) having the task of spreading the co-operative movement in the rural areas. The

development of the co-operative movement has been closely linked to land reform and the commitment of the ruling elite to end feudalism in the countryside and enlist the support of the peasantry” (United Nations Research Institute for Social Development, 1972).

Expansion of Co-operatives

The expansion of co-operatives gained momentum after the initiation of the land reforms in 1962. Section 16 of the 1962 Land Reform Law stipulated that only persons who were members of the village co-operative would be eligible for land purchase under this law.

Initially, co-operatives were organized by the Agricultural Bank with the assistance of the staff of the Ministry of Land Reform and Rural Co-operation. The pace of expansion was determined by the speed at which the different provisions of the land reform could be applied to the village and at which staff of the Agricultural Bank could move in to establish co-operatives. In 1963, the Central Organization for Rural Co-operatives was set up to develop, organize and guide the local societies. In 1967 the Central Organization for Rural Co-operatives was made a part of the Ministry of land reform and Rural Co-operation, thus abandoning the original plan of developing an autonomous Central Organization (Lampton, 1969).

The local co-operatives were theoretically organized as multipurpose societies on the principle of unlimited liability; in actuality, they were almost single purpose with most providing only credit. According to O. Aresvik, “The main activities of the rural co-operatives have been concerned with the distribution of credit and the establishment of

consumer co-operative shops, the quantity of agricultural products marketed through the co-operatives is negligible” (Aresvik, 1965).

The co-operatives expansion has been considerably speeded up since 1965/66. There were about 1,995 primary co-operatives in 1963. By 1965 their numbers had tripled and by 1968, there were 8,652 co-operatives. About 21,000, or 42 percent of all the villages in Iran have been covered by co-operatives (Digby, 1968).

Management of the Local Co-operative

The managing director of the co-operative is usually appointed from the residents of the villages covered by the co-operative. One basic requirement for the candidate to hold such position is that he should be a person of repute in the rural community. According to Aresvik, “mutual trust was very quickly established, and there has been a remarkable lack of corruption” (Aresvik, 1965). The co-operative supervisor, who was employed by the Central Organization for Rural Co-operatives, usually was a graduate of a high school with special training in co-operatives and rural development. The supervisors, according to instructions from the Central Organization for Rural Co-operatives, should live in the same village as the extension agents of the Ministry of Agriculture to ensure coordination between the two.

Achievements of the Agricultural Co-operatives

The Iranian agricultural co-operatives have concentrated mainly on the task of administering, under guidance, the government loans to co-operative members.

Government Loans through Co-operatives

Although no precise estimates were available as to the total credit needs of the peasants in Iran and their degree of dependence on the co-operatives, the Central Treaty

Organization study provided some relative data. Out of 568 peasants interviewed in different parts of Iran, the average loan taken was about 2,800 Rials. Among sources of credit, the Agricultural Bank ranked first, providing about 27 percent of total credit with the co-operatives providing about 17 percent (Central Treaty Organization, 1965). However, at the time of the Cento study, only a very small percentage of the peasants were members of co-operatives. By 1973, the Agricultural Co-operative Bank was able to make loans amounting to approximately 15 billion Rials. Of this amount, somewhat over one-half was used for loans to rural co-operatives and joint stock companies (Clark and Carey, 1976). The Agricultural Co-operative Bank charged co-operatives a 4 percent rate of interest while co-operatives charged about 6 percent interest to members (U/N Research Institute for Social Development, 1972).

Compared to Iraqi co-operatives, where a high percentage of government loans default prevailed, the Iranian experience proved to be remarkably successful. The majority of borrowing farmers obeyed the first rule of co-operative credit that loans must be promptly repaid. For example, “about 86 percent of the loans made up to 1966 had been repaid at or before the due term” (Ibid, 1972).

Production Co-operatives

In 1971, a new experiment was started under the Production Co-operative law of February 1971: “One of the main purposes of the production co-operative law was to provide an alternative to the farm corporations in large-scale agricultural production. It was hoped that the production co-operatives can to some extent overcome the disadvantage of the small size of the holdings of the beneficiaries of the land reform by the use of machine pools, the pooling of land for some of the stages of cultivation, and

the adoption by the members of the co-operative as a whole of a common cropping pattern, yet at the same time retain most of the advantages of individual farming” (Aresvik, 1965).

Iran’s Fifth Economic Plan provided for the establishment of sixty production co-operatives over a five-year period. While an F.A.O. study included these co-operatives under the term “farm corporations”, Oddvar Aresvik made a distinction between the two by stating that, “In the production co-operatives the main emphasis is on the human element and on the personal initiative of the individual farmer. The members keep the ownership of their land and the right to use it within the programming of the co-operative. While in farm corporations the whole area was operated as one unit and the net income was divided among the shareholders, in production co-operatives the gross production from individual farms belongs to the respective farmers. They therefore receive no dividends or wage” (Aresvik, 1965).

General Assessment of the Role of Co-operatives

One distinguishing feature of the Iranian experience in the rural transformation process, which promoted and developed the motivation of the co-operative members, was the introduction of the literacy corps program to the villages. According to J. Carey and A. Carey, “Without the work of the Health, Education Extension and Development Corps, much less progress would have been made. Approximately 14,000 agricultural engineers and technicians were busy in rural areas as part of their military service. As we have seen personally, many of their accomplishments have been notable, particularly in strengthening the extension services by teaching and giving practical help and co-

operation in many matters varying from road and school construction to livestock breeding” (Carey and Carey, 1966).

The role of the land reforms and co-operatives in the transformation of rural Iran was positive. The security provided by tenure promoted a conducive environment for increasing production by farmers. A study of the impact of land reform laws on different regions indicated that such indices of rural development as per-capita income, sanitary environment, and spread of literacy steadily increased (Khatibi, 1971).

Lampton aptly summarized the role of the co-operatives in assisting the land reforms by stating that,” As seen against the background of climatic, social and economic conditions, the political and administrative situation, and the limited support in terms of funds and trained manpower, the achievements of the co-operative societies have been considerable and encouraging” (Lampton, 1969).

The Russian Experience in Agricultural Co-operation

Before a discussion of agricultural co-operation in Russia can take place, it is important to determine the Russian concept of co-operation. Historically, there were two important eras: first, the period from 1920 to 1929, when co-operation of a kind existed with a large degree of state intervention; second, from 1929 onwards when, Agricultural Co-operation and the trend of collectivization due to the collectivization trend launched by Stalin, co-operatives ceased to exist in the Western sense,

The Russian view of co-operation is one of state capitalism. According to Lenin, “Co-operative capitalism, as distinct from private enterprise capitalism, is under Soviet power, a variety of state capitalism” (Miller, 1974).

Moreover, Lenin emphasized that the economic base of co-operation on the land and other means of production were to belong to the state.

Agricultural Co-operation and the Trend of Collectivization

The growth of the agricultural co-operatives during the years 1920 to 1929 was not spontaneous. Instead of a natural expansion, co-operation was initiated by the bureaucratic hierarchy. According to Miller, “The system was extremely top-heavy. Rather than growing from below in response to the needs of healthy, expanding, primary co-operatives, it grew from the top down. The rapid growth of primary and secondary associations was largely the result of self-generating bureaucratic expansion and the official policy of mass recruitment, rather than natural growth” (Miller, 1974).

The watershed for co-operation came on June 27, 1929 when the Central Committee issued a decree of the organizational structure of agricultural co-operation. The emphasis now lay in the direction of production co-operatives, which were to be reorganized and joined as Kolkhoz and sowing associations with crop specialization. These, in turn, were united via territorial co-operative unions.

Despite the Russian concept of collectivized farms as a specific form of “co-operation”, this definition is basically negated by the obligatory deliveries of goods at low prices, which were imposed on the farmers within these collectives without regard to their needs. This deprived the farmers of the purpose of usual co-operatives, which is to serve the needs of its members.

The Soviet experience showed that collectivization was accompanied by a large measure of red tape on the managerial level arising from over-centralized decision-

making. In addition, the important production incentives of the farmers were severely curtailed.

According to D. Warriner, "... What the Soviet experience shows is that though tractors and combines can increase the area cultivated, the advantages of large-scale farming will not affect lack of incentive. No farming system is efficient if people will not work under it" (Warriner, 1969). According to J. Wilczynski, socialist economists distinguish two types of incentives:

1. Moral incentives. The operation of these incentives was based on a worker's social consciousness in contributing to society's welfare, on his interest in his occupation, his sense of satisfaction from the work performed and pride in his status. Political appeals, slogans, boards and books of honor in factories, awards of pennants, badges, medals and orders and the holding of self-criticism sessions are well-known instruments utilizing these sentiments to spur workers to better production performance;

2. Material incentives. These appeal to the materialistic cravings of the worker, and consist of rewards in money or kind according to the quantity and quality of work performed or economies achieved. In addition to the differentiation of standard wage and salary rates, they include individual and group bonuses or benefits out of special incentives funds.

Marx, as well Lenin, believed that after the overthrow of capitalism moral incentives would gradually assume an increasing role in spurring workers to greater effort. On the other hand, material incentives were considered to be essentially anti-social, a relic of capitalism that would wither away. Fifty years of experience in the Soviet Union had shown that this was far from truth in reality. The most radical element

of the economic reforms in the U.S.S.R. and Eastern Europe was in fact the extension and strengthening of material incentives (Wilczynski, 1970).

The Russian experience clearly showed that the state's objective of obtaining maximum agricultural surplus through obligatory deliveries, achieved by collectivization, was at odds with the basic living requirements of the farmers. This friction created a low volume of agricultural production per head of the population, generally accompanied by high costs of production and periodic food shortages.

According to Erich Strauss," The starting point of the conflict was not the need, however genuine, to overcome the backwardness of the post-revolutionary Russian village nor the political danger threatening from the counter-revolutionary activities, real or alleged, of the Kulaks. It was the opposition between the government and the towns as bread consumers and the peasants as forced suppliers" (Strauss, 1969).

According to Roy and Betty Laird, "... Not only had the peasants shown an alarming increase in counter-revolutionary attitudes but their response to the mounting economic problems was to eat more of their food while growing less for the cities" (Laird, 1970).

Summary and Conclusions

The Egyptian experience in Land Reforms and co-operation indicates that, by 1957 if not earlier, policy makers had realized that land reform alone could not achieve agricultural growth.

Unlike the Iraqi co-operatives, the Egyptian agricultural co-operatives were given a wide range of powers not only to provide credits, seeds, fertilizers, storage, transportation and mechanization services to the members, but also to organize the

cultivation of the members' land, specify the crops to be grown, carry out pest control and irrigation work. Moreover, considerable funds were allocated to the agricultural sector in the form of public investment to improve the infrastructure in the rural areas where such schemes constituted the backbone of any attempt to achieve agricultural development.

The Egyptian Land Reform co-operatives were very effective in not only increasing the agricultural production, but also in influencing the composition of the agricultural production. The most significant change in Egyptian agriculture over the past half-century is the shift from traditional crops such as grain to commercial products. In conclusion, the Egyptian co-operatives system is a unique attempt to combine the benefits of communal farming and private individual farming.

The Iranian experience illustrates the importance of careful planning prior to the establishment of rural co-operatives. Moreover, a certain emphasis was placed on developing the social aspect of co-operation to stimulate the personal initiatives of co-operative members.

The Iranian agricultural co-operatives have concentrated mainly on the task of administering, under guidance, the government loans to co-operative members. Compared to the Iraqi Land Reform co-operatives, where a high percentage of government loans default prevailed, the Iranian experience proved to be remarkably successful.

The Russian experience in "co-operation", which cannot truly be considered as such, did not provide an appropriate example to be applied to Iraq. The Baath party's foremost goal at that stage was to emulate the Russian model in spreading its ideology in

the rural areas (especially during the late 60's and 70's) at the expense of the co-operatives financial viability.

Chapter Five

The Credit Problem in Rural Iraq with Special Attention to the Role of the State-owned Agricultural Bank in Financing Land Reform Cooperatives

The institutional rural credit problem in Iraq is complex and multi-dimensional, involving politics, society and culture. This chapter presents insight into the failure of successive military regimes and the Baathist state (represented by the state-owned Agricultural Bank) to provide adequate and viable loans to land reform co-operatives from 1958 to 1975.

An attempt has been made to explore possible reasons for the relatively high default rates of co-operative loans. The chapter concludes with some policy suggestions to improve the future institutional credit market in rural Iraq.

The Nature of the Rural Credit Problem in Developing Countries

During the last four decades, several valuable studies and articles covering the literature on rural credit problems in developing countries were published. Specialized studies sponsored by international organizations such as the F.A.O. and I.M.F. have contributed significantly to understanding the dimensions of the rural credit problem in developing countries.

In a developing economy, the difficulties of obtaining capital of any sort are great, due to low-income and considerable inequalities in income distribution. There are usually three main sources of finance; current income, past savings and loans. Due to the

subsistence nature of the agricultural economy and the time lag between incurring the costs of production and the eventual returns on investment, credit is fundamental to the continued process of production. According to Balkenhol, “Without finance there can be no income generation or poverty alleviation. Without finance enterprises cannot be created or sustained. All businesses ... whether they are large or small, engaged in manufacturing or trade, located in the countryside or in the city, owner-managed companies or public corporations... need access to regular and adequate financing for production, sales and distribution. Even informal income- generating activities need financial resources for working capital and investment purposes, as well as the know-how required to manage such resources” (Balkenhol, 1991).

From the point of view of the cost of credit, agriculture in developing economy suffers from certain disadvantages as compared with other sectors such as industry and trade. These include the small, fragmented nature of peasant operations, the risks and uncertainties involved in farming, capital scarcity and the high degree of competition between borrowers for capital, the slow rate of turnover of capital due to the long gestation period of agricultural production, and the monopoly position of many money-lenders and traders; all these impose conditions which make the cost of credit to agriculture higher than in many other types of economic activity (F.A.O., 1957).

U. Tun Wai believed that due to high risk and uncertainty, a money-lender would add a two to 200 percent premium to the normal rate of interest, depending on his anticipated rate of default. Since the proportion of defaults is high in the less-developed countries, rates of interest would obviously be adjusted upward in order to make good the loss caused by defaults (International Monetary Funds, 1958).

Moreover, the cost of management of loans is higher in agriculture compared to other sectors. Anthony Bottomley argued that the number of loans advanced by the money-lender in rural area is relatively small and also that the size of individual loans is small. As a result of these factors, and also due to the inclusion of the monopolistic position of the money-lender, he charges a high rate of interest (Bottomley, 1963).

Other studies highlighted that the majority of state-owned agricultural banks have not been effective in their primary goal of improving access to credit in rural areas. According to Vega and Graham, “Reduction in the cost of borrowing has been achieved only for large borrowers, while small producers have been saddled with high transactions costs”, (Vega and Graham, 1995). This demonstrates a tremendous discrepancy between the stated objectives of these institutional lending organizations to assist small farmers to obtain reasonably priced loans and the actual results. A number of studies over the past twenty years have confirmed some salient characteristics of rural financial markets. For example, Stiglitz concluded that adverse selection and moral hazard could prevent interest rates from achieving equilibrium between the supply and demand of credit (Stiglitz, 1993).

The role of politics in granting rural loans has been closely studied. For example, Cole stated the following about the public rural lending practice in India, “Over the 1985-1999 period, agricultural lending by public banks in India grew 5 to 10 percentage points faster in election years than in years after an election, that election year loans were more likely to be made to districts with more heavily contested elections, that these loans were less likely to be repaid, and that they did not measurably affect agricultural out put. (Conning and Udry, 2005).

The neo-liberal development literature emphasized micro credit programs as a promising method to counter the defects of the rural financial markets in developing countries. However, a comprehensive study of 13 micro-credit programs in Asia, Africa and South America indicated that the benefits of the micro credit programs under study were not scale neutral as the upper and middle-income poor tended to benefit more than poorest of the poor (Hulme and Mosley, 1996).

Historically governments in developing countries have intervened in rural finance to remedy the problems of fragmented and imperfect finance markets. In Iraq, over 37 centuries ago Hammurabi's Code included many regulations to cover credit transactions for farmers and merchants, including caps that limited interest rates to 33 and one third percent on loans of grain. Additionally, the Code included regulations that limited what could be collected on debts in certain circumstances such as drought or natural disasters (Goetzmann, 1966).

In general, the literature on rural credit distinguishes between "the traditional approach to rural finance" and a newer approach. The former is premised on extensive intervention in the rural markets to encourage farmers to adopt new technology, obtain favorable interest rate or to correct the bias towards urban dwellers. The latter aims to achieve the same objectives by promoting efficient rural financial markets through favorable policy environment, improving the legal and regulatory procedures that support rural finance markets, and addressing specific market failures in cost-effective ways through well designed, self-sustaining interventions (Yaron et al, 19970).

It is important to emphasize that despite its importance to the rural economy rural finance by itself is not a panacea for achieving advanced agriculture. The task of transforming traditional agriculture requires well-integrated economic and social plans. From 1958 –2003, a strong interventionist –redistributive policy, guided Iraq’s policy makers. Some key aspects of this policy reflect central planning, encouraging an import-substitution industrialization orientation, the introduction of land reforms and food subsidies. The dramatic increase in oil revenues during the period from 1958-1980 had significant political and social implications. These revenues were used by the state to create an authoritarian regime where citizens traded their political rights in exchange for economic benefits and the relative security of state jobs.

Indebtedness and the Rural Credit Problem in Iraq

Although no comprehensive information is available concerning the extent of indebtedness in rural Iraq, there are indications that the average Iraqi farmer has a very meager amount of capital at his disposal. During the last four decades the increasing problem of indebtedness, its causes and implications, has presented a grave challenge to successive regimes in Iraq.

To the Iraqi farmer, borrowing is necessary not only to meet the costs of production but also to maintain his family. When, after the 1958 coup, the government began to favor the formation of co-operatives, it was found that a considerable number of farmers were unable to meet the minimum share-holding costs of 1.250 Iraqi Dinar per annum. A study undertaken by the Institute of Co-operation and Agricultural Extension found that 8 to 12 percent of member farmer in co-operatives had debts for amounts exceeding 100 I.D. outstanding for over two years. Approximately 11 percent of the

farmers were selling their cereal crops to merchants prior to harvest (“selling green”). About 50 percent of the farmers were indebted to merchants for the supply of credit on consumer goods, while 7 percent of the farmers were tied to the merchants by the provision of agricultural inputs, basically seeds and cultivation tools on credit. About 17 to 20 percent of the farmers were indebted to friends and relatives through the provision of loan funds to meet social and emergency expenditure (Russel, Sriram and Al-Abdulla, 1971). Under such conditions indebtedness tends to be identified with poverty and is not associated with increased productive investment leading to enhanced productivity and income earning capacity.

Although the maximum rate of interest permissible under Iraqi civil law is restricted to 7 percent per annum, this had no effective force in rural Iraq and is vastly exceeded in practice. The cost of credit obtained from money-lenders in rural Iraq has certain distinctive peculiarities as it tends to be disguised and charged indirectly. Direct methods of charging interest were not very common in rural areas in deference to the emphatic pronouncements of Islam against usury (Riba). The Koran prohibits the creation of money, by money but allows money to be used for trading tangible assets that can generate a profit. Thus money-lenders adopted ingenious disguised usurious practices. One such common method was the advancement of money against an anticipated crop (called “selling green”) so that the deal appears to be a commercial rather than a purely monetary transaction. It is difficult to give a typical figure for interest rates levied in various parts of rural Iraq, since rates vary greatly from lender to lender and from region to region. The rates average 30% for one season, and can vary from 60 to 100% from one season to another (Al-Khyat, 1970). Another study by Al-Hilali indicated that the average

interest rates in rural Iraq could fluctuate between 10 to 30 percent per annum (Al-Hilali, 1969). The high cost of credit in most cases, was due to the lack of effective competition between the sources of credit. Apart from the semi-monopolistic position of the money-lenders that enabled them to exact more onerous credit terms, a considerable degree of risk was involved because of the conditions under which Iraqi agriculture was practiced.

For example, more than one-third of the total area under cultivation depends entirely on rainfall, which was highly erratic and seasonal. Moreover, the losses on crop yields caused by insects and pests may reach substantial proportions in some seasons, and according to one-study losses caused by pests to wheat and barley were valued at an average of 10,000,000 I.D. annually. Similarly, animal husbandry is characterized by inadequate forage and poorly developed veterinary services; these resulted in low levels of livestock production.

Thus, agricultural production was determined more by the vagaries of nature than by the inputs of the farmers and since the return on each Iraqi Dinar spent by the farmer on production was not constant, the risk of loss is ever-present. The risks and uncertainty inherent in farming influence not only the borrower's decision to invest capital but also the lender's willingness to supply it; consequently, the lender either restricts the supply of credit or demands a high price for its use. Even the U.S.A where the capital market in the rural sector is well developed, it is observed that banks with a degree of monopolistic power find that it is in their own self-interest to restrict the amount of capital loaned to farmers. Generally, the risks and uncertainties of agriculture and the possible attendant losses affect capital investment, the cost of credit and the allocation of loans between consumption and investment.

The Agricultural Credit Policy and the Supply of Credit after 1958 Coup

One of the main objects of the Land Reform program implemented after 1958 was to strengthen institutionalized credit as a step towards creating a more competitive credit system in rural Iraq. Theoretically it was to constitute an integral part of the land reform program, which sought to facilitate the emergence and establishment of independent and productive family farms.

Among the institutional agencies co-operatives are an important instrument for tackling the credit problem, as they tend to undermine the quasi-monopolistic position hitherto enjoyed by the private money-lender. Furthermore, co-operatives have certain advantages over other agricultural credit institutions once a certain level of efficiency has been achieved. Operating on a local basis the board is familiar with the character and ability of its members and is, therefore, qualified to extend credit on the basis of a sound appraisal of each cultivator's personal merits. Moreover, co-operatives can be organized so as to reach small farmers scattered throughout remote areas (SurrIDGE, 1962).

Solving the problem of rural credit in Iraq necessitated the strengthening of the institutional agencies and improving their operational efficiency. The co-operative credit system required considerable assistance in order to develop a sufficiently competent autonomous organizational and financial structure to withstand and challenge the strong competition from private vested interests, and to meet the growing needs of agricultural development.

The Supply of Credit and the Role of the Co-operative Bank in Financing Land Reform Co-operatives

The sources of credit in rural Iraq may be classified into two broad categories; institutional credit agencies represented mainly by the Agricultural Bank and the Co-operative Bank and non-institutional sources such as merchants, relatives, friends and money-lenders, such as village shop-keepers and other local traders.

In 1956, the Ministry of Social Affairs made a recommendation emphasizing the co-operatives' urgent need for financial and technical assistance. In 1959, following the introduction of the first agrarian reform, the Co-operative Bank was reorganized to encourage the co-operative movement and participate in any action designed to promote co-operative societies and accelerate their development and progress. In order to achieve this, it was authorized by the Ministry of Agriculture and Agrarian Reform to:

- (1) Provide co-operative societies with various types of credit;
- (2) Buy or import any articles of equipment, or commodities that might be required by co-operatives;
- (3) Act as an agency for co-operatives in exporting their products;
- (4) Accept deposits from co-operatives and their members, as well as from non-co-operative organizations and individuals;
- (5) Assist co-operatives in foreign exchange matters;
- (6) Serve co-operative societies and their members through the provision of various banking facilities;

- (7) Provide co-operatives with storage facilities;
- (8) Participate in co-operative projects sponsored by co-operative societies and research the possibilities of expanding such projects; and
- (9) Provide co-operatives with economic, technical statistical and administrative assistance and advice (Al-Hilali, 1969).

Capital and Amount of Loans

In 1956, the nominal capital of the Co-operative Bank was 250,000 I.D., which was increased to 3 million I.D. in 1959, with 51 percent of this capital to be advanced by the Ministry of Finance, and the rest to be contributed by the co-operative societies, which benefited from the credit services of the bank.

The capital position of the bank indicated that both the Ministry of Finance's subsidy and the co-operatives' statutory subscription were insufficient to significantly boost the expansion of the embryonic co-operative movement. By the end of 1964/1965, the paid-up capital of the Co-operative Bank, represented only 22.15 percent of the bank's nominal capital, amounted to 664,439 I.D. of which 600,000 I.D. originated from the Ministry of Finance and the remainder from subscription by co-operatives.

The Co-operative Bank law lacked detailed provisions specifying the nature, amount and duration of loans to be granted to the co-operatives. Most of the loans subsequently granted by the bank were short and medium-term, ranging from six months to four or five years. These two types of loan were usually required by, and extended to, agricultural and consumer co-operative societies, whereas long-term loans, with periods from six to twelve years, were allocated in particular to building co-operatives. The actual rates of interest charged by the bank varied according to the type of co-operative

negotiating the loan. Three to four percent was charged on loans granted to co-operatives and four-and-a-half percent on loans extended to non-agricultural co-operative societies. Although this policy favored co-operatives in principle, by levying subsidized rates of interest (compared to the previously mentioned private sector rates believed to range between 30 percent and 100 percent per annum), the volume of credit released to agricultural co-operatives was minimal compared to that absorbed by non-agricultural co-operatives. For example, only six percent of the total credit outflow was destined for agricultural co-operatives, compared with 92 percent for building co-operatives during the period of 1959 to 1964 (Ministry of Agricultural and Agrarian Reform, 1974).

It is difficult to measure the extent to which the credit needs of co-operative members have been met by the Co-operative Bank due to the absence of reliable information about their credit requirements. Nevertheless, a study submitted by the Supreme Agricultural Committee indicated the minimal impact of institutionalized credit by revealing that, whereas in 1972 non-institutional sources provided the farmers in Baghdad province alone with an estimated 2 million I.D., the total institutional credit supplied annually in the whole of Iraq amounted to only 3,889,000 I.D. (Supreme Agricultural Committee, 1972). This situation prevailed at a time when the beneficiaries from the land reform were in urgent need of credit, as former landlords ceased to supply loans and money-lenders were reluctant to advance funds in the uncertain political situation that followed the coup of 1958.

The Agricultural Co-operative Bank and Its Role in Financing Land Reform Co-operatives

In 1945/46, an Agricultural Bank aiming to serve the agricultural sector was established with state funds and with nominal capital of 500,000 I.D. An analysis of the

growth of bank capital and its credit operation is important in assessing the performance of the agricultural banks in relation to their stated aim of tackling the credit problem in rural Iraq. Despite a steady growth in the bank's assets, a continuous discrepancy exists between nominal and paid-up capital. This, coupled with increased demand by the farmers for credit following the first Agrarian Reform, seriously affected the bank's lending position. Successive regimes between 1952 and 1974 repeatedly stressed the importance of adequately financing the Agricultural banks to promote higher productivity in practice non-agricultural banks received a greater allocation of funds from the government. For example, over the period 1952 to 1973 the average paid-up capital of the Agricultural Bank was approximately 5.3 million I.D. compared with 12.8 million I.D. of the Bank for Building and Construction. Even after the accession of the new regime in 1958 when the capital assets of the banks were publicly stated to have been raised to 10 million I.D., only 6, 243,897 I.D. were reported to have been allocated by 1965 (Ministry of Agriculture and Agrarian Reform, 1966).

The Agricultural Bank and Credit Operations

The Agricultural Bank's credit operations were severely criticized in the period immediately prior to 1958 coup on the grounds that large landowners having adequate securities at their disposal constituted its most important clients. Since the Agricultural Bank required collateral such as assets or personal property as prior conditions for a loan this consequently disqualified the majority of landless farmers from availing themselves of its credit services. Despite a progressive increase in the number and size of loans advanced annually by the Agricultural Bank, they represented a total of only 25,374,276 I.D. for the period 1938 to 1972 or an annual average of 746,302 I.D. This compared very

unfavorably with non-institutionalized forms of credit, which provided an estimated annual 17 million I.D. in Iraq before 1958 (Ministry of Agricultural Agrarian Reform, 1976).

Although successful implementation of land reform necessitates careful advanced planning and coordination between the various institutionalized agencies operating within the agricultural sector, no detailed instructions were issued to the Land Reform co-operatives in order to familiarize members with the size, type and duration of the loans available.

1964 was a crucial year in the evolution of the government's credit policy as it represented a more committed orientation towards the co-operative movement. For the first time, a consistent set of regulations was introduced governing credit facilities accorded to Land Reform co-operatives. The following are some of these important aspects:

- (1) A direct contact was established for the first time between the Agricultural Bank and the Directorate General of Agricultural Co-operatives, which aimed at achieving an annual credit plan.
- (2) Agricultural co-operatives were freed from the immovable property qualifications as a surety measure, the latter being replaced by an official guarantee from the Supreme Agricultural Committee, which is the highest authority in the agricultural sector responsible for planning the development of the agricultural sector.

- (3) A preferential interest rate of three percent was established on loans to agricultural co-operatives, this being significantly lower than the rates charged by non-institutional sources of credit.
- (4) Branch managers of the Agricultural Bank were authorized to grant loans with prior consultation with the Directorate General of Agricultural Co-operatives Headquarters in Baghdad to hasten the loan procedure.
- (5) Individual co-operatives were permitted to borrow in excess of 3,000 I.D. (Tabra, 1976).

As a result of the Agricultural Bank's new policy of giving priority to agricultural co-operatives, the latter's share of the total volume of loans issued increased from twenty four percent in 1964/65 to fifty nine percent in 1975 (Ministry of Agriculture and Agrarian Reform, 1975). No official explanation was provided for why 41 percent secured no loans especially since, at that time, all co-operatives members were experiencing an acute need.

Distribution of Credit within the Co-operative Sector

Although the total credits allocated to the co-operatives increased significantly over the period from 1964 to 1974, it is noteworthy that certain co-operatives continued to benefit from the Agricultural Bank loans whereas others continued to be excluded despite their meager internal resources. This uneven channeling of loans to some co-operatives to the exclusion of others may be explained by bureaucratic shortcomings of the Directorate General of Agriculture Co-operatives. For example, whereas the Agricultural Bank allocated 7,346,790 I.D. to the Directorate General in 1972 for

redistribution to the co-operatives, only 2,202,359 I.D., or 36 percent of the sum allocated, was actually withdrawn and redistributed. By 1973-74, the proportion had risen to 42 percent (Directorate General of Agricultural Co-operatives, 1976).

Although reliance on external rather than internal resources may be essential during the early stages in the establishment of co-operatives in developing countries, the emergence of a truly independent and self-sustaining co-operative movement should be accompanied by a reversal in this pattern, which, in the long-term, must be inimical to the application of the basic co-operative principles of self-help and local autonomy.

A major factor, which aggravates the problem of utilizing co-operative resources, is the restrictive centralization in decision-making. According to various co-operative reports, some Land Reform co-operatives accumulated relatively large reserve funds but they were not allowed to utilize them productively. This passive attitude toward developing the internal finances of the co-operatives indicated that the government sought to control the co-operative movement and discourage any financial viability that might challenge its authority.

The Government Agricultural Credit Policy after the 1968 Baathist Coup

The official publications concerning the objectives of the credit policy lacked coherency. Through careful reading of these reports, however, the following emerged as the salient aspects of this policy:

- (1) The necessity of combating the long-lasting problem of overdue loans by farmers in rural Iraq, which was considered a partial cause of their low productivity (as it limits their capability to invest);

- (2) The elimination of non-institutional sources of credit and their replacement by institutional credit to ensure more equitable interest rates;
- (3) Enhancing farmers' productive ability through the important means of institutional credit (Ministry of Planning, 197).

During the mid 1970s, the government attempted to make institutional credit more available. The Agricultural Bank reaffirmed the favorable interest rate of three percent on loans to Land Reform co-operatives.

Baker questioned the rationale of such a policy: "Why (couldn't) peasants borrowing at exorbitant interest rates in the informal market (from money lenders) borrow at the equivalent rate from credit institutions? Low rates of interest give an impression to the borrowers that the future is amply provided for, and thus, encourage consumption. On the other hand, a high rate of interest increases the reward for saving." (Baker, 1973).

In Iraq, the reduced interest rate of three percent, applicable to Land Reform co-operative loans only, was justified on the assumption that these subsidized loans were to be utilized for productive purposes by the farmers. In 1974, the Agricultural Bank advanced to the co-operatives loans totaling I.D. 3,851,230, the largest amount ever disbursed to co-operatives by the Bank. However, the share received by each co-operative averaged only I.D.2, 805. This amount could hardly serve to neither increase co-operative members' productivity nor contribute significantly to improving farmers' incomes. According to the 1971 Census, the informal credit market (i.e., private lenders) provided I.D.7.8 million to farmers, while the Agricultural Bank provided only I.D. 3.1 million (Annual Abstract of Statistics, 1975). It has been noticed that the main beneficiaries of the Agricultural Bank loans during the last four decades were not the

small farmers but, rather, rich farmers who were able to provide the collateral required for their loans. Thus, the institutional credit system failed in its basic objective of providing the co-operative small farmers with adequate credit to enhance their productivity.

Reasons for High Default Rates on Agricultural Bank Loans

Following the government's policy in 1964 of extending credit availability. There was a significant increase in both the number and size of Agricultural Bank loans allocated to the Land Reform co-operatives. There was also a considerable increase in defaults, from 1 percent in 1966 to 53 percent in 1975 (Directorate General of Agricultural Co-operation, 1976).

Some direct and indirect causes for these default rates during the 1970's follow. The following are some of the problems that might have directly or indirectly caused a considerable increase in co-operative default rates during the 1970's includes:

a. Land Reform Regulations

The stated objective of the Ministry of Agriculture was to facilitate the emergence of an efficient credit system in rural Iraq. In practice, the land reform regulations severely restricted the right to sell or mortgage the redistributed land. The Supreme Agricultural Committee acted as the grantor of loans advanced to co-operatives.

This may have encouraged borrowers to believe that expropriation of their land, as penalty for default, was only a remote possibility. One moral hazard factor in aggravating default rates was the lack of security or collateral received from the debtor in exchange for the co-operative loan. Another factor was the fact that the D.G.A.C. did not formulate

a credit policy to encourage co-operatives to build their own internal savings to serve as sources of loans to members. This led to a weaker commitment to repay loans since the co-operatives lost nothing in the case of default. So persistent was this situation that the D.G.A.C. regularly wrote off overdue loans.

b. The Agricultural Bank and its co-operative loans practices

A critical function of any lending institution is monitoring the status of the enterprise, which has been funded. In this instance, the Agricultural Bank depended on the co-operative supervisors to report and follow up on information related to the Bank's investments. In fact, co-operative supervisors coped with heavy workloads (some of them managing more than one co-operative), which relegated such reporting to a low priority. More critically, these supervisors reported up to a different authority, the Directorate General of Agricultural Co-operation within the Ministry of Agriculture, which reduced their incentive to follow through as requested.

The Agricultural Bank was also challenged because of its loan recovery process. Loans were not collected as efficiently as possible due to a lack of experienced and qualified personnel. The Bank suffered from the absence of an extensive branch network to adequately monitor and supervise the loans to the co-operatives. In 1975 the Agricultural Bank operated 35 branches primarily concentrated in the main provinces, whereas the co-operatives were distributed among Iraq's 318 administrative regions.

High default rates by co-operatives drained the scarce resources of the Agricultural Bank and increased the social opportunity cost of institutional loans. The defaults

affected the mutual trust between the co-operatives and the Agricultural Bank, undermining a key fundamental principal for a sound system of agricultural credit.

c. Poverty and the Default Rate

Rural poverty in Iraq contributed to the issue of loan repayment and defaults. Farmers who subsisted on meager incomes naturally devoted a large percentage of whatever additional sources came their way to funding basic needs. They did not have access to commercial bank loans (which were not available in rural areas for rural credit) nor could they afford the costly credit offered by traditional money lenders. The introduction of institutional loans offered by the government state-owned Bank, which did not require guarantees or collateral, created an environment in which farmers made basic and understandable decisions in support of their most immediate needs.

There is a paucity of literature on rural poverty in Iraq. What follows is a review of some of the available historical information.

The International Bank's report published in 1959, uses a hypothetical example of a peasant in the irrigated zone, where barley is the principal crop, to serve as a rough indicator of a farmer's income. This farmer, who usually cultivated about 25 Donums (a Donum is one-quarter of a hectare), was provided with a share of the harvest calculated at three tons (from a gross output of 7.5 tons), which he could then take to market to sell at 10 I.D. a ton (1952 prices). If this share of the summer crop at 10 I.D. was added to the 30 I.D. incomes of his winter and summer crops, his annual income totaled 40 I.D. (International Bank, 1959).

From this meager income, the farmer was often compelled to contribute sums for religious purposes as well as for guards and servants for the Sheik "landlord". The few

studies addressing farmers' incomes after the Agrarian Reform law of 1958 provided differing conclusions. According to Al-Jasim, the land reform of 1958 did not improve peasants' income, which totaled between 10 I.D and 20 I.D. from 1958-1964 (Al-Jasim, 1968). Al-Talibani's study estimated that peasants' per-capita income prior to the agrarian reform of 1958 was 20 I.D. from winter crops and 12 I.D. from summer products, totaling 32 I.D. per annum. After the agrarian reform, it was estimated that the income of peasants who owned 40 Donums of rich soil farmed by the traditional rotation system amounted to I.D. 80 from winter and 48 I.D. from summer products for 128 I.D. annual per-capita income (Al-Talibani, 1969).

Al-Talibani's study, however, was not representative of results on all types of soil in Iraq, differing as they do in fertility, and divided broadly into three different categories (Al-Janabi, 1967). A critical distinction should be noted between the standard of living of farmers as a whole and those who benefited from the agrarian reform law. The number of rural agrarian families who benefited from the law was estimated at 57,117 out of a total of 714,017 agrarian families by the end of 1958. Official statistics suggest an increase in the average share of rural family incomes from I.D. 134.3 in 1953 to I.D. 261 in 1969 (Hashim, 1970). These estimates are not accurate, however, because of the weakness of an arithmetic average as a representative statistical measure. The official statistics also did not provide a clear distinction between people working in the agricultural sector and those merely depending upon agriculture. More recent studies indicate that overall absolute poverty in urban areas increased from 25 percent in 1988 to 72 percent in 1993, while in rural areas, it increased from 33.8 percent to 72 percent between 1988 and 1993

(Shaar, 2004). The F.A.O. indicated that in 2003, 55 percent of the population was poor and 44 percent were currently food insecure (F.A.O., 2003).

The widespread poverty that plagued Iraq during the last twenty-five years was the result of misguided government policies and priorities that did not recognize the importance of encouraging efficient allocation of resources to the productive sectors of the economy. Instead these resources were directed to the military, an unproductive sector. Finally, the country faced three devastating wars as well as sanctions that devastated its economy and ripped its social fabric.

d. The Fallow System and Default Rates

The fallow system is widespread in Iraqi agriculture. This practice involves cultivation of half of the land while the remainder is left fallow until the next year.

This practice is partially responsible for lowering crop production and, consequently, affecting rural income. The fallow system is widely accepted by farmers in rural areas, who believe it has these three advantages: the land's fertility returns in a period of fallowness; it relieves demand on water supply, especially in the summer; and, it reduces the amount of salinity in the cultivated land (Majid, 1967). Contrary to what the farmers believe, however, the fallow system is destructive and wasteful. Wild grass takes hold and then becomes part of the harvest, reducing the yield and its quality. Nor is there strong evidence to suggest a correlation between the fallow system and lower salinity. The continuation of this system is one of the factors, which decreases productivity, negatively affecting farmers' incomes and, ultimately, their capability to repay loans.

e. Socio-cultural factors affecting repayment of loans

Farmers in rural Iraq do not make their economic decision in a social or cultural vacuum. They are profoundly influenced by the customs, norms, and modes of the society in which they live. There are few sociological and anthropological studies of Iraqi farmers' investments habits. Of these, one study indicated that farmers prefer to allocate a relatively high percentage of their scarce resources to fulfill religious and social activities rather than to productive investments that can enhance their immediate income or future accumulation of capital (Rashid & Ajam, 1974). Such behavioral, if common in rural Iraq, might further explain the high default rate on agricultural loans. More socioeconomic research is required to analyze the impact of values and norms and their impact on capital accumulation and economic growth.

f. The Oil Boom of the Seventies and the Default Rate

Another factor that could have encouraged laxity in collecting overdue loans from the co-operatives in addition to the political objectives was the dramatic increase in oil revenues during the seventies. The oil revenues provided a surplus of 35 to 40 billion of foreign reserves (Alnasrawi, 1994). The availability of this surplus may have relaxed the financial discipline of the Agricultural Bank, lessening enforcement of collection procedures, which in turn impacted the co-operative default rate.

g. The Baathization of Rural Organizations and the Default Rate

Despite the fact that the rate of default on co-operative loans dramatically increased during the seventies, neither the Agricultural Bank nor the Directorate General

of Agricultural Co-operation attempted to analyze the reasons. One reason might be attributed to the effective Baathization of all rural organizations (including co-operatives) during the seventies. The goal was to increase the Baath party base and achieve more integration with its urbanized base. Although no figures exist for the number of co-operative members who were enrolled, Baath party membership increased significantly between 1968 and 1976 from between 100-200 in 1968 to 500,000 members in 1976 (Potter & Sick, 2004). It is possible that members of the co-operatives who enrolled did not feel obligated to repay the co-operative loans on the assumption that they were entitled to compensation for following the Baath party political line. In addition, this understanding was enhanced when co-operative members were asked to provide political information on the opposition and, when during the eighties, they were asked to report on soldiers who deserted during the Iraq-Iran war (Tareek Al-Shaab, 2006).

Potential Policies to Improve Future Rural Credit in Iraq

While acknowledging the importance of market forces to stimulate economic growth, there is a great need in today's Iraq to ensure a balanced mix of public and private participation to achieve economic growth. An agricultural development policy should increase farmers' access to subsidized credit, infrastructure, extension services, improved inputs and technologies designed to assist small farmers to achieve high productivity and higher levels of income.

The following are some suggestions to improve and remedy some of the failures of the credit market that plagued rural credit in Iraq during the last four decades.

1. The Ministry of Agriculture and the Agricultural Bank should consider setting clear rural credit policies for short, medium and long-range loans. Medium and

long-range loans can be effective in encouraging crop diversification. Beyond that, special attention should focus on building infrastructure. No amount of accessible credit can induce a subsistence farmer to grow cash crops, for example, if there is no place to store the crops nor roads or transportation facilities to reach the market.

2. The Ministry of Agriculture should propose that the co-operative model be reinstated to help create cohesion out of disarray. Rural co-operatives are established in many developing countries for the purpose of achieving increased agricultural production, higher farm incomes and enhanced market competitiveness. However, in this new incarnation, the government should insure that the basic principals of co-operation are applied to create a reasonable environment for co-operatives to succeed. Co-operatives should not be reinstated simply for the sake of establishing co-operatives. Rural co-operatives are established in many developing countries for the purpose of achieving increased agricultural productivity, higher farm incomes and enhancing the competitiveness of the agricultural markets. The co-operative model can serve as a useful medium in which to supply subsidized credit to the small farmers in rural areas. Reliance on formal subsidized credit is essential at this stage. However, to maintain a truly independent co-operative in the long run, the co-operatives should develop their own internal resources to insure autonomy and financial viability.
3. Democratically elected management in can contribute to the future success of newly formed co-operatives. They can identify and broker joint collateral packages to reduce default possibilities and ensure timely payment of loans. Co-

- operatives have a role to play in the development of civil society; they enforce democracy and contribute to the development of competitive markets.
4. The Agricultural Bank should be independent of the Ministry of Agriculture to avoid political manipulation.
 5. Sufficient funds should be allocated to the Agricultural Bank since it is the primary source of institutional rural credit. Moreover, the Agricultural Bank should develop quantified objectives and practical processes to estimate the need for and nature of the credit to be disbursed across rural Iraq.
 6. The Agricultural Bank should address the timely collection of its loans. It would need to implement efficient, ongoing loan supervision at the village level. In addition, this supervision should ensure full geographic scope covering all rural villages receiving loans.
 7. The Agricultural Bank would need to work more closely with both extension services and the co-operatives' management to educate farmers in the new realities, particularly that loans are not gifts from the government. The extension services should educate farmers that there is no link exists between securing a loan and supporting the politics of the government. The co-operative's management should inform members that defaulting on loans jeopardizes their chances of receiving future loans.
 8. The decision on loans granted to individual farmers should be made at the local village level, assisted by the local Board of Directors of the co-operatives, who are democratically elected.

9. The Agricultural Bank should consider formulating a package of incentives aimed at encouraging their loan administrators to stay in rural areas. Additionally, the Agricultural Bank could provide incentive plan for the timely repayment of loans. These could include interest rebates and access to larger loans
10. The Agricultural Bank should consider formulating a package of incentives aimed at encouraging their loan administrators to stay in rural areas. Additionally, the Agricultural Bank could provide incentive plan for the timely repayment of loans. These could include interest rebates and access to larger loans.
11. The Agricultural Bank should implement management information systems that enhance the efficiency of controlling and supervising the loans. The Agricultural Bank should consider adopting international best practices for regulatory, accounting and disclosure procedures
12. The Agricultural Bank should implement management information systems that enhance the efficiency of controlling and supervising the loans. The Agricultural Bank should consider adopting international best practices for regulatory, accounting and disclosure procedures.

Summary and Conclusion

The credit problem in Iraq, as in many developing countries, centers on the continuous indebtedness of the farmers and the relatively high cost of obtaining credit. During the last three decades, successive Iraqi regimes have attempted, however unsuccessfully, to tackle the deficiency in Iraq's rural credit system.

The objective of the 1958 coup was to strengthen institutionalized credit in order to create a more competitive credit system. The Co-operative Bank and the Agricultural

Bank were to help attain this goal. Six years after the Land Reform Law of 1958 was enacted, little had been achieved. On the contrary, the main beneficiaries of the Agricultural Bank were not the co-operative farmers but, rather, the rich farmers who were able to provide the collateral required for the loans.

A new credit policy was adopted after the Baath coup d'état of 1963 in which was advocated the elimination of non-institutional sources of credit. It was felt that increasing the loans advanced by the Agricultural Bank to the co-operatives could do this.

This policy was retained by the Baath regime of 1968 with the added provision that the co-operatives were to replace non-institutional sources of credit and that institutionalized credit was to be considered an important means to increase agricultural productivity. While there was a significant increase in both the number and size of loans allocated by the Agricultural Bank to the co-operatives, this was accompanied by a considerable rise in the default rate from one percent in 1964 to 53 percent in 1974/75. The government sought to control the co-operatives to achieve political objectives and discouraged any financial viability that might challenge its authority. The institutional loans allocated through the co-operatives were neither adequate nor efficient in meeting the final objective of increasing agricultural productivity or transforming Iraq's traditional agriculture.

Chapter Six

Problems of Marketing in Iraq with Special Attention to Marketing through Land Reform Co-operatives

The aim of this chapter is to illuminate problems encountered in the marketing process in Iraq. Special attention will be devoted to an analysis of the various successive stages, which co-operatives underwent in relation to the governmental marketing policies adopted by successive Iraqi regimes during the period 1958-1975. In addition, an attempt will be made to assess the problems of the land reform co-operatives in marketing and their capabilities to meet the government's marketing objectives and policies.

The Problem of Marketing in Developing Countries with Special Reference to Iraq

Agricultural marketing may be defined as a process initiated by the decision to produce a saleable farm commodity, involving all aspects of marketing structure, both functional and institutional, including product assembly, processing and distribution to the final customer. Generally, the three main functions subsumed under the term 'marketing' involve assembling, preparation for consumption and distribution.

Before proceeding to discuss the problem of marketing in Iraq, it is necessary to segregate the twin concepts of the market place (where buyers and sellers convene) and the market principle, which represents the determination of prices through the resolution of forces of supply and demand. P. Bohannan and G. Dalton have classified societies into three categories according to the significance of the roles played respectively by these two elements:

- (1). Societies lacking market places. The market principle, if it appears, is weakly represented.

(2). Societies with peripheral markets, where, despite the presence of the market place as an institution, the operation of the market principle determines neither acquisition of subsistence, land allocation nor labor resources.

(3) Societies dominated by the market principle and the price mechanism (Bohannon, Dalton, 1962).

Although such classifications are useful in elucidating the market categories existing in various societies at different stages of development, they can hardly be considered universally valid since, in practice, all these elements may exist simultaneously in less-developed countries. Iraq is no exception in the respect.

In any attempt to understand the problem of marketing, it is essential to evaluate many variables, social, political and legal, which might affect marketing procedures. Moreover, marketing institutions, their strategies and activities are influenced by demographic factors, such as birth rate and internal migration, while levels of income and education may also modify consumer behavior. Generally, the degree of sophistication in the exchange function depends on the level of development of political, social and economic institutions.

Satisfactory distribution studies are unavailable for Iraq. This neglect of the marketing field is probably ascribable to a failure to recognize its crucial importance and has culminated in a lack of specialized agencies, maintaining proper records of prices, marketing costs and quantities marketed and stored. Conversely, the difficulties inherent in compiling proper records are aggravated by the underdeveloped nature of the marketing system itself. For example, there was hardly any standardization or grading of

produce before it is finally marketed, and in consequence the comparison of prices both spatially and over time is prevented.

The slow progress realized in the marketing sector and the underestimation of its economic function might be attributable to the tendency widely prevalent in Iraq as in other developing countries, to visualize marketing as a parasitic activity-casting merchant in a purely exploitative role.

Economic theory poses two primary questions relating to markets:

- (1) To what extent they may inhibit production by raising marginal costs and depressing marginal revenues of producers;
- (2) To what extent they obscure the signals of changing supply and demand, thereby impeding regulating mechanisms. The greater the marketing margin the greater will be the inhibition to production and the weaker the signal for supply and demand changes.

In practice, it appears that the further the marketing mechanism has advanced, the more differentiated and specialized production has become, resulting in a more integrated economy.

Before discussing the efficiency of the marketing structure in Iraq, the following will provide a brief coverage of the state controlled agricultural organizations.

The Agricultural State Controlled Organizations

The Ministry of Agricultural and Agrarian Reform in Iraq controlled six state organizations, which were responsible for the marketing of the main crops. The state organizations are:

(1) Directorate General of Date Marketing

This organization has two main functions. Firstly, to supervise the processing and marketing of dates and secondly to determine export and local trading prices.

(2) The State Organization for Grain

The organization was established by the government in 1969 with three branches, the Grain Board, the State Flour Milling Company and the State Bakeries. The Grain Board was responsible for all imports, exports storage and distribution of the main crops (wheat, barley, rice). It also supervised the silos in which the grain is usually stored. Moreover, it was responsible for fixing the prices of grain on an annual basis.

The State Flour Milling Company provided the market with flour at subsidized prices. The organization was also responsible for the construction of modern flourmills, which were usually located in the main cities. The State Bakeries produced bread, which is subsidized by the Ministry of Agriculture and Agrarian Reform. Public Bakeries did not exist in the whole country and where they did not exist, the flour was sold to private bakeries at subsidized prices.

(3) Tobacco Monopoly Administration

This was established in 1943. Its functions, besides limiting the area of legally planted tobacco, include the purchase and grading of tobacco crops. Tobacco is either sold to the nationalized cigarette factories or exported. Prices were fixed by the organization annually.

(4) Fruit and Vegetable Marketing Administration

In 1968 the Fruit and Vegetable Marketing Administration formulated the following objectives:

- a) Reduce price fluctuations;
- b) Introduce proper grading, packing and transport facilities;
- c) Supply credit facilities to the producers.

It was also responsible for importing fruit and vegetables.

(5) Public Markets Administration

Its function is to control market inlets and outlets by regulating producers' and consumers' prices. An official from the Administration was responsible in supervising the implementation of the posted prices.

(6) Trade Administration for Animal Products

The administration had two main functions:

- a) To import, export and determine prices of all animal products
- b) To increase animal production by encouraging the introduction of modern technology.

Measuring the Efficiency of Iraq's Marketing System

The deficiencies in Iraq's marketing structure did not facilitate the emergence and formation of efficiency prices due to the unequal bargaining power of various successive

links in the marketing chain and the overall fragmented state of agriculture entailing higher marketing costs for agricultural produce.

The first problem to be confronted in an attempt to measure the efficiency of Iraq's marketing system concerns the nature of the criteria to be applied because in some areas, predominantly in cities, domestic trade was organized along western lines, whereas it was still underdeveloped in small villages and towns, having undergone few modifications since the beginning of the century. Although the market principle and price mechanism were operative in some cases in large cities, this is by no means uniform. Many merchants in bazaars, for example, relied on bargaining as the means of price determination. The price received by farmers, therefore, is affected by their lack of price information.

Moreover, the absence or extreme paucity of basic data concerning price and profit levels, volume of output and sales, storage/production ratios, number of traders and extent of their respective operations, etc., precludes an accurate evaluation of the impact of these factors on the degree of competitiveness in Iraq's marketing structure. For example, indices available for consumer prices were limited to Baghdad markets alone. These indices, therefore, neither incorporate nor reflect price fluctuations in the countryside of Iraq. Furthermore, although an urban centre, the city of Baghdad cannot be regarded as representative of urban areas in Iraq, due to its unique position as capital where local trade, industry and other economic activities are conducted under the auspices of the government. Moreover, the cities markets function within a more developed system of infrastructures and hence market imperfections are comparatively fewer for this localized area.

It is important at this stage to clarify the meaning of efficiency before proceeding to apply and measure it. It is probably misleading to determine market efficiency simply on the basis of considering its accompanying cost, since it is also necessary to investigate what functions the marketing process fulfills in each case and examine the services provided to consumers. In the case of America, for example, marketing costs absorb a high percentage of the retail price paid by the consumer. This is not due to any intrinsic inefficiency but to the provision of elaborate services for which the consumer is willing and able to pay. Thus, marketing efficiency should be viewed, as the movement of goods from producers to consumers at the lowest cost consistent with the provision of those services required by both. Marketing efficiency, therefore, implies economic efficiency in applying appropriate methods in relation to costs, and optimal satisfaction of the demands of producers and consumers.

According to Whetham, “Efficiency in marketing is a complex matter, since neither the addition of utility nor the services provided can be precisely measured. Nevertheless, it is possible in many cases to judge whether or not a particular process in the marketing structure is being conducted with reasonable efficiency in comparison with similar work being done elsewhere, and thus judge whether or not elements of monopoly exist. Again, studies of a particular system of marketing can sometimes indicate where a given process has failed to adopt to the change in the size or the nature of the trade and is thus holding back the corresponding flow of supplies to meet a greater demand, or has failed to stimulate new markets for an increased flow of supplies” (Whetham, 1972).

In order to assess the level of viability of Iraq's marketing system, it is useful to concentrate upon an analysis of the basic role it is intended to perform and the physical prerequisites to its effective functioning.

The general responsibilities incumbent on the marketing system are outlined in Jones' definition of a market, that is, that it be:” Capable of providing the necessary dependable outlets for the products of farm and factory, regular supplies of foodstuffs and other consumer goods of the desired kind and quality to both town and country markets and timely deliveries of the productive inputs needed by farmers and the raw materials required by processors and other manufacturers” (Jones, 1972).

In measuring the efficiency of Iraq's marketing system, the following indicators may be useful in the initial stage of analysis:

- a) Margins for agricultural products on Baghdad market;
- b) The extent to which the physical requirements are present for an adequate marketing structure.

It has been widely observed that markets specializing in agricultural produce do not operate efficiently in price-signaling and there is considerable divergence between prices paid by consumers and those received by producers, both spatially and over time. Although the high margins between farm gate and retail prices could be explained by the risk involved in marketing highly perishable products because of loss due to wastage, a study by the Supreme Agricultural committee indicated the relatively high profits made by middlemen compared with those received by producers. (Supreme Agricultural Committee, 1974)

The high proportion of marketing costs contained in retail prices for agricultural products in Iraq during the last three decades is not necessarily caused by improved services to the consumer; it is widely recognized that methods of distribution were inadequate.

Any attempt to discuss alternative approaches to marketing reform in Iraq will have to take into consideration factors such as the political and social environment. The determination of the government since 1963 was to interfere in the market and to eliminate the middlemen from the marketing chain (thus impeding what was viewed by the government as exploitation of the producer by the middleman). This was considered by the government to be a marketing reform.

Two points arise from this policy: (1) to what extent official regulation (State take-over of the marketing) can improve efficiency within the marketing structure; (2) the cost of such a policy. Since 1972, government policy has indicated that the co-operatives be assigned a new role which involves substituting the middleman in marketing grain as a first stage and potentially the marketing of all agricultural produce in the future.

Possible Reasons Underlying Excessive Marketing Margins

Since marketing margins consist of both costs and profits, the reasons underlying excessive marketing margins may be attributable either to unnecessary costs, unwarranted profits or a combination of the two. In a theoretical situation of perfect competition, this cannot occur since the prospect of large profits immediately attracts new traders who compete with existing ones and who lower their margins in order to acquire more business until average profits sink to a level at which additional traders no longer wish to enter the market. In Iraq and during the period 1958-1988. Competition is

often far from free and the market system was characterized by a government monopoly on the wholesale trade of cereals (wheat, barley, and rice) and oligopolistic control over the marketing of vegetables and fruits, in particular.

This oligopolistic situation is preserved by barriers to entry in the form of the following factors: first, the extreme difficulty in competing with long established traders who acted as middlemen; second, the high initial capital outlay needed, especially for transport and storage facilities; third, the provision of credit facilities by traders and brokers to producers; and, fourth, the skill and experience gained in marketing which strengthen the link with the producers. This oligopoly practiced by middlemen may to a certain extent aggravate the problems of high margins for agricultural products. Furthermore, the attachment of credit to the marketing system contributes to a reduction of the farmers' autonomy and bargaining ability. Unfortunately, many farmers have acquired the rather expensive habit of obtaining goods first and paying for them later, thus contracting dangerous liabilities towards the middlemen. These usually take the form of credit at the farm in return for an agreement to sell the next crop at a predetermined price, which is usually lower than the prevailing price on the market when they come to sell. Once indebted, the producer finds great difficulty in extracting himself from this dilemma, as he is obliged to continue to depend on one particular outlet for his produce, thus seriously weakening his bargaining position. Moreover, inequality of access to reliable market information between the producer and the middleman further consolidated the position of the latter in negotiating transactions, as the farmer is often isolated from the markets of the urban centers, and is consequently unfamiliar with current trends in agricultural prices both spatially and over time.

The Marketing Infrastructure in Iraq

Another factor, which may contribute to increasing marketing margins, results from the deficiencies inherent in the physical distributing network serving the marketing system itself. Iraq's chronic lack of improved physical distribution facilities may be partly attributable to an official underestimation of their importance or the prohibitive capital outlay required for their construction. Transportation, storage, market information, standardization and grading are all indispensable prerequisites for any marketing system to function with optimum efficiency. (Jones, 1978)

The following sections examine the physical distribution system prevailed in Iraq during the last four decades:

1. Transportation

A mark of sophistication in a marketing system is the speed and effectiveness with which products can be transmitted from seller to buyer, and vice versa. Transportation has often been a major stimulus to the development of marketing institutions and methods.

According to D. Carson, nations in the throes of raising the efficiency of their marketing systems are frequently plagued by one or more of the following weaknesses in their domestic transportation systems on land and on water; insufficient facilities for livestock and perishable produce; multi-gauge railroads; excessive pilferage; poorly constructed roads and inadequate maintenance of existing networks; inadequate integration of various sectors of the transportation chain; and governmental preferences that promote less efficient modes of transportation. Unfortunately, the failings are most prevalent in the poorer nations. (Carson, 1966).

Iraq lacks an effective transportation system to deliver the goods from producer to consumer with the minimum delay, especially for perishable products. Substantial savings could be realized by the creation of a sound physical distribution system, thereby eliminating unnecessary duplication of effort by minimizing warehousing, trans-shipment and handling costs. Furthermore, more appropriate timing in the delivery of goods would enhance consumer satisfaction. An efficient transportation network in combination with improved warehousing facilities is needed to achieve this objective. Lack of transportation facilities in Iraq is probably due to high cost requirements and the low priority accorded the improvement of existed facilities in the formulation of the economic plans. Consequently, the movement of goods between the different centers of trade remains a costly and dilatory process.

A shortage of transport facilities increases the cost of transport in turn increasing marketing costs and reducing farmers' profits. Farmers are further isolated from the market which contributes to the preservation of subsistence agriculture.

2. Storage Facilities

Storage facilities can function as a means of regulating trade, stabilizing prices and forestalling shortages. One of the most serious problems in the marketing of agricultural produce in Iraq was the lack of efficient and adequate storage facilities at the farm level.

Although there are no statistical data concerning storage space existing within the agricultural co-operatives, some valuable information may be obtained by examining statistics on the entire storage space available in Iraq. For example, the storage space for grain up to the end of 1974 could accommodate about 366,000 tons, while the average

annual production of wheat, barley and rice amounted to 2,100,000 tons. According to the Supreme Agricultural Committee Report estimates, the shortage in storage space available will continue to be acute for a considerable time in the future (Ministry of Agriculture and Agrarian Reform, 1974).

The lack of storage facilities can increase spoilage in cereals, which was caused by weather condition and insects. The percentage of spoilage occurred during the marketing of cereals may be in the order of 20 to 30 percent according to a study undertaken by the Ministry of Agriculture. Considering that the average annual production of wheat, barley, and rice was 1,300,000; 700,000 and 250,000 tons respectively, the wastage that occurs amounts to 250 to 300,000 tons of wheat, 140 to 200,000 tons of barley, and 45 to 75,000 tons of rice annually. This substantial level of market loss represents a value of 10,250,000 I.D.; 3,080,000 I.D.; and 4,500,000 I.D. respectively (Ministry of Agriculture and Agrarian Reform, 1974).

This problem of storage shortage is further aggravated by the fact that preference is given by the Directorate General of the Grain Organization to the storage of imported grain rather than to local produce.

3. Market Information and Research

Marketing information is the collection, interpretation and dissemination of marketing data on supply and demand and prices of agricultural products, including present and future trends and assessment of the general market atmosphere to assist producers and consumers in making market decisions.

While the timing of the price declaration is very important to the producers there was a delay in the declaration of the government's fixed prices for the major crops, wheat and barley, until a considerable time after the crop has been planted.

Fixed price fluctuations from one year to another and inefficiencies or imperfections in price transmitted will also produce price uncertainty. A change in the degree of uncertainty can bring about the same production responses as a price change, or it can reinforce or mitigate the impact of actual changes in price relationships.

Market research is an essential instrument for improving the marketing procedure. Its role includes the conversion of latent demand into effective market demand by identifying and anticipating consumer needs, thus advising producers to concentrate production in areas of demand and to establish acceptable standards of quality. In Iraq, however, most trading institutions operated in the absence of any feedback information from market research.

There were many obstacles confronting market research, including an underestimation of its importance, lack of personnel qualified in marketing skills and the absence of accurate, comprehensive statistics.

4. Standardization and Grading

One of the major weaknesses in the marketing of farm products in Iraq was the absence of proper standardization and grading. Good quality produce is often mixed with bad and little attempt is made to classify produce by varieties, sizes and weights. Buying by description is therefore rendered almost impossible and this limitation tends to detract from the standard of market efficiency. Carson describes the benefits of a system of standardization and grading as follows: "One of the hidden services rendered to

consumers by marketing enterprises in more mature economies is the establishment and universal application of merchandize standards for weights and measures, sizes, raw material content, durability and quality” (Carson, 1967).

In Iraq, however, no uniform system of weights and measures is consistently applied throughout the country. In Baghdad, the ‘Hukka’ was in use, which unfortunately designates 4 Kilos or 1.28 Kilos. There is also the ‘Mann’ equal to 25 Kilos and the Baghdad ‘Wazna’ which can be expressed either as 24 ‘Hukka’ or 4 ‘Mann’ but does not represent the same equivalent weight.

The Main Objectives of Iraq’s Marketing Policy in Relation to Co-operative Marketing

The government’s marketing policy was aimed at taking over the domestic trade. This was discernible from official reports published after the advent of the new Baath regime in 1968. Moreover, the government adopted a policy of linking the availability of institutional credit with marketing through the co-operative.

The reasons for advocating such a policy were given by the government as follows:

“If a co-operative is to succeed as a marketing organization, it must find ways of providing credit to its members. At the present time merchants, who, by this means, exercise a considerable hold over the producers, provide such credit. Because the producer is indebted to the merchants, the latter are able to dictate the channels by which the producer must market his crops. If the co-operatives were able to provide adequate loans, it would be possible to link this credit provision with an obligation by the members

to market their produce through the co-operative” (Ministry of Agriculture and Agrarian Reform, 1974)

The crucial turning point came in 1972, when the government decided to eliminate the middlemen’s role in the marketing chain, particularly in the trade of basic crops. The reasons given by the government for taking over the marketing of the basic crops were:

1. To achieve self-sufficiency by maximizing the grain surplus through the co-operatives to satisfy the basic necessities of Iraq’s population.
2. To eliminate the ‘exploitation’ practiced by the merchants; the co-operatives were considered the only possible alternative in the marketing of the main agricultural produce.
3. To improve the farmers’ income by adopting a fixed price policy for grain.

(Ministry of Agriculture and Agrarian Reform, 1974)

The Price Policy and the Marketable Surplus of Grain

The objective of attaining self-sufficiency in food grains was not supported by any economic arguments. It seems likely that self-sufficiency in food grains became a national objective due to a desire to achieve independence from external food sources provided by countries deemed imperialistic by the Iraqi government. (Al-dook, 1974). This issue has especially influenced the political considerations of the Baath regime, partly because of the Egyptian example (when food shortages put in danger the stability of the regime). Moreover, the intention of the Baath regime to nationalize the oil industries, resulting in a potential lack of foreign currency should the scheme fail, made

the objective of agricultural surplus a pressing issue in order to maintain political stability.

The demands of a rising non-farm population still remain and involve problems relating to marketable surplus, which represents the surplus available for disposal which the producer has left after individual requirements of family consumption, payment of wages in kind, feed, seed, and wastage have been met. A feature of the rural consumption pattern in Iraq is that substantial parts of the consumption supplies, particularly in 'foodstuffs', are met by the rural families out of self-production.

In the case of food grains, the consumption demand of the agricultural population is large relative to total production. Since population was increasing at a rate of 3.5 percent per annum, and since the majority of the farmers are at a near-subsistence level, an increase in the output of food grains tends to be absorbed by increased consumption. According to a survey carried out in 1971, the rural non-cash consumption of foodstuffs was 44 percent as against 3.3 percent in the case of the urban population (Central Statistical Organization, 1973).

According to a study by the Supreme Agricultural Committee the following factors were considered by the government in fixing the prices of food grain:

1. The cost of production
2. The quality of the produce
3. The price level needed to give farmers an incentive to increase their production

(Al-Sekooty, 1974).

Any attempt to determine 'fair' agricultural prices in relation to costs of production was fraught with many problems because:

1. The relative weight to be given to different cost factors is subject to dispute.
2. Reliable data may not be available.
3. The cost of production of wheat and barley will vary between different geographical regions and even within the geographical regions. A study carried out in 1972-1973, comparing the average yield per-Donum with the average cost of producing wheat and barley indicated that the resultant profit margin would not appear to constitute a positive incentive to stimulate higher production levels, with the possible exception of a few highly productive farms.

Experience in many countries has shown that a precise formula to determine producer price levels such as cost of production or parity with non-farm prices usually imposes an undue rigidity on price relationships which in time is likely to give rise to serious difficulties. A number of indicators need to be considered in any price policy, such as, changes in the cost of important production factors, changes in the price of competing crops, and the general cost of living. Moreover, while it has been found that relatively high levels of price support have been maintained in some industrial countries to raise farm income, this can seldom be afforded in developing countries.

Feasibility and Objectives of Co-operative Marketing

The aim of co-operative marketing is for societies to seek to perform one or more of the marketing services usually provided by the middleman, retaining the latter's margin of profit and returning it to its own members.

In analyzing the objectives of agricultural co-operatives in marketing it is important to distinguish two stages, the first of which was characterized by the farmers' continuing prerogative to choose between the middleman and the co-operative as an

outlet for their surplus cereals. The second stage occurred in 1972 when the government took over the marketing of grain.

The first signs of progress in co-operative marketing were apparent only as late as 1964. The growth of their contribution to the marketing sector however was still insignificant compared with the extent and size of the co-operative sector.

Before 1972, the government, despite potential political gain from discontinuing the functions of the middleman (with the wide belief in his exploitative role) and instituting a state monopoly of domestic trade, was prudent enough to appreciate the economic inadvisability of this course since the nascent marketing capability of the co-operatives was not yet equal to the task of the middleman's effective replacement. By choosing not to intervene at this juncture, however, the government appeared to be upholding the principle of voluntary marketing for agricultural co-operative members, which it was to partially abandon at a later stage.

Since 1972 the main government objective for agricultural co-operatives in Iraq's marketing sector has been to dislodge and exclude the middleman through the creation of a state monopoly in the trade of agricultural produce. (Al- Thawra Al- Arabiya, 1974). This target differs from the co-operative principle in the traditional western sense where each co-operative relies upon its internal ability to compete in the market and achieve favorable margins and improved market services for the consumer. Furthermore, although there is nothing, which specifically relates to the position of the middleman in the by-laws of Iraq's agricultural co-operatives, in practice the co-operatives functioned as an extension of the state seeking to eliminate the role of the middleman and as a vehicle for implementing government policy.

Since the state was determined to take over and control the marketing of agricultural produce it is essential to ascertain to what extent marketing through co-operatives can replace the middlemen and assume his functions in a more effective and economic way. Iraq lacked a detailed study investigating the feasibility of marketing through co-operatives and giving due consideration to the following prerequisites:

1. There must be an adequate volume of business (presupposing an adequate volume of production) to realize the benefits accruing from large scale operation and to maintain overheads or fixed costs in an economic relationship to direct marketing expenses. In the case of Iraq's agriculture, however, which was still close to subsistence level, the surplus available for release onto the market was relatively small and the fragmentation of farm holdings engendered by the land reform involved a high cost of collecting produce. Moreover, the Directorate General of Agricultural Co-operatives had no adequate surveys at its disposal concerning the viability of marketing through co-operatives scattered throughout the area subject to land reform.
2. A successful marketing co-operative requires efficient management like any other business organization, whereas Iraq lacked qualified and competent supervisors. Only government officials are eligible for appointment to managerial positions in the co-operatives thus excluding many experienced applicants from these posts. There was even a scarcity of managerial skill in marketing agricultural produce. For example, the main organization responsible for the storage of grain and deliveries to bakeries prior to 1971, namely the Directorate of Grain, had its functions extended to include the marketing of

cereals throughout Iraq but received no supplementary qualified personnel to direct its operations. Even presupposing a co-operative movement staffed by competent managerial personnel, a further problem to be surmounted involves the loyalty of member farmers, as most are illiterate and experience difficulty in comprehending co-operative principles. They prefer to transact their business with middlemen, with whom they have more deeply rooted social contacts, rather than with their own co-operatives, which they tend to envisage as government agencies. Consequently, continued reliance on traditional outlets prevented the co-operatives' realization of economies accruing from large volume marketing operations.

3. Even assuming the existence of such indispensable prerequisites as managerial competence, loyalty of member farmers and an adequate volume of agricultural produce to be marketed, successful marketing would still be inhibited by the lack of an adequate physical distribution system, thus curtailing the marketing activities of co-operatives and imposing restrictions on the accessibility of different markets, especially those of the urban centers.
4. A structure of incentive prices and expectation of relative price stability are both crucially important factors in promoting increased production in traditional agriculture. The wide fluctuations in agricultural prices in Iraq have contributed to the perpetuation and even reinforcement of traditional methods of production and sustaining the idea of subsistence agriculture, where production is undertaken primarily for consumption rather than for the market. This encourages reluctance

on the part of farmers to apply modern purchased production inputs, thus considerably retarding the process of commercializing agriculture.

Summary and Conclusions

The deficiency in Iraq's marketing structure during the last three decades can be attributed to the lack of a physical distribution network and the absence of a realistic and coherent agricultural policy for marketing agricultural products. Official publications indicated that an excessive share of the marketing profits of agricultural produce is acquired by the middlemen and not by the small farmers.

The co-operatives with their meager resources, were not capable effectively and efficiently replacing the middlemen. In addition, the Baathist regime implemented a government monopoly in the marketing of the main agricultural produce and applied disincentive price policies on the main agricultural products that caused a chronic agricultural stagnation. This was contrary to the principle of co-operation whereby internal capabilities of the co-operatives are nurtured so that, in time, co-operatives have their own wherewithal to compete in the market place and achieve favorable profit margins for their members.

Chapter Seven

The Policy and the Problems of Mechanizing Iraqi Agriculture with Special Attention to the Promotion of Mechanization within Land Reform Co-operatives

In this chapter, an attempt will be made to clarify and assess some aspects of the origins and increasing application of agricultural machinery in Iraq with its implications for the economic development of the country during the last three decades. The economic efficiency of the co-operatives in providing mechanization services to their members will be assessed and analyzed. In addition, an attempt would be made to evaluate Iraq's mechanization policy in general during the period 1958-1975.

Technological Change and Agricultural Growth

The seventies were marked by the emergence of two critical innovations in the theory and practice of development economics. There was a growing realization that agricultural growth represented an essential element in general economic development and that technological change was a critical factor determining the successful outcome of agricultural modernization. Previously, development economists had associated economic growth with industrialization and devoted attention to the role of agriculture in overall structural growth. The resolution of this issue during the 1960s meant that the actual process of agricultural modernization attracted more interest. Schultz, for example, identified primitive technology and not allocative inefficiency as the underlying cause of agricultural stagnation in traditional society (Schultz, 1964).

It is clearly useful to distinguish between two types of technological change in agriculture:

(a) Increasing crop yield by raising levels of soil fertility, and the introduction of new strains of plants with superior qualities resistance to disease and greater compatibility with the prevailing climate.

(b) The application of agricultural machinery in cultivation and harvesting either to save labor or to increase production.

The functional difference involved here in between methods designed to increase yields in crop cultivation and animal husbandry, and those substituting mechanical energy for either human or animal energy, or both.

In the period immediately succeeding the Second World War there was a rapid increase in the rate of agricultural mechanization in the western countries and Japan, which consequently raised levels of labor productivity and considerably reduced labor requirements.

There have been various estimates as to the net benefits of mechanization that accrue both to the mechanizing farmer and to society at large. Determination of the net social benefits is more hazardous, and conclusions vary from the optimistic to the dismal (Bose and Clark, 1969). Reasons for this diverse range can be attributed to:

- i) The nature and extent of existing and intended mechanization;
- ii) The coverage of the study and the number of crops and rotation patterns analyzed in assessing the influence of mechanization;
- iii) Situational characteristics involving water supply, soil fertility, geophysical features, size of farm, fragmentation of holding, etc.;
- iv) The stage of development through which the agricultural sector is passing.

For these reasons, any attempt at drawing up a set of general guidelines for policy is probably misleading as each country presents a unique combination of circumstances.

The very nature of mechanical technology is often inappropriate for the most effective development of resources in many developing countries. It necessitates intensive use of capital and represents a drain on foreign exchange, the two scarcest and hence, expensive, resources in these countries, and tends to under-utilize an abundant labor supply.

Writers such as B. Venkatappiah have supported the adoption of a policy of “selective mechanization” to strike a balance between increasing production through mechanization and generating employment. Selective mechanization has been recommended for the following reasons:

- (a) It contributes to increasing employment
- (b) It reduces labor demands at peak periods
- (c) Human or animal power are inadequate for optimum results, and
- (d) It removes physical drudgery from agricultural work and so encourages young farm people to stay on the land (Venkatappiah, 1972).

However, it is difficult to identify a pattern of “selective mechanization” which could be adopted in countries as different in circumstances as is the case in developing countries.

Regarding the reduction of rural migration to the urban centers, Venkatappiah believes that mechanization could help to keep young people in farms. This could be more than offset, however, by pull factors, such as higher wages and the attraction of social life in the main cities.

According to Gotsch: “with respect to mechanical innovation, the benefits of technology borrowing are less clear. Some items such as motors, lift pumps, tube wells and small power tillers, seem on the whole to be consistent with the factor endowment and social organization of most of the less-developed countries in which they have been introduced. But other types of equipment, notably tractors and various types of harvesting equipment such as combines and cotton pickers, appear to have the potential for producing significant divergences between net private and net social benefits” (Gotsch, 1973).

The experience of machinery organization in developing countries presents a mixture of success and failure. The Sudan Gazira Board tractor fleet stands out as one of the efficient tractor operations in the developing countries. It is observed that the success is mainly due to:

- i) Proper control and maintenance of the machinery fleet;
- ii) High annual utilization per tractor;
- iii) Use of a block system to avoid working on small fields (Simpson et.al, 1966).

The Kenyan experience with mechanization is successful with large farms corresponding to the European settlement while unsuccessful with small farms. The Ugandan experience with the government tractor hire service has proven to be unsuccessful.

There is a general consensus that mechanization will result in far-reaching consequences for the socioeconomic structure of those societies where it is being introduced. Hence, an informed evaluation is needed prior to its introduction.

E.S. Clayton, in his Kenyan study, suggests that the sole use of economic criteria is not enough to assess the desirability of mechanization. For instance, even when mechanization does not exhibit a financial advantage over the manual labor alternative, it does enable a given income to be made with less effort. In the case of the family farm, mechanization is desirable since it will make life easier for the family while maintaining the same level of income. But when paid labor is employed, it is not necessarily of economic advantage to the farmer to ease the physical burden of his worker. However, if the paid labor that is released by the mechanization can be put to productive use or can take over task previously done by the family, the farmer would no doubt prefer to hire a tractor (Clayton, 1972).

Basic Data Concerning the Use of Agricultural Machinery in Iraq (1958 - 1975).

It was only after the Second World War that agricultural machinery was first introduced into Iraqi farms, consisting almost exclusively of water pumps. There are no accurate and adequate data available on the extent of mechanization of Iraqi farms. The census survey conducted by the Ministry of Planning in 1971 indicates that 47 percent of the agricultural holdings were using no machinery at all in their agricultural operations and that large holdings are more highly mechanized than their smaller counterparts (Ministry of Planning, 1972).

Government Policy and the Extension of Agricultural Mechanization

From the early fifties, international bodies have recommended the use of mechanical power in Iraqi agriculture. As a result, the government established the Agricultural Machinery Administration in order to have a complete monopoly on the

import and distribution of agricultural machinery and to set up machinery rental stations. By 1970 there were 19 rental stations, with a staff of nearly 4000.

The agricultural machinery imported by the Ministry of Agriculture and Agrarian Reform during the period 1958 to 1968 indicates a rapid increase in both the number and types of agricultural machinery in use. For example, in 1958 there were 33 harvesters, 129 tractors and 90 Discs, in 1974 the numbers increased to 476, 967 and 463 respectively (Ministry of Agriculture & Agrarian Reform, 1974). This rise is attributable to the importation of a wide variety of models of agricultural machinery, without regard to their compatibility to terrain or to the availability of skilled technicians. For example, 64 distinct types of tractors were in use. Such a wide variation of models has posed serious problems with regard to maintenance and the supply of spare parts. However, from 1968 onwards there has been a tendency to restrict the types of machinery imported, especially combine harvesters and tractors, due to the difficulties of obtaining spare parts for this wide range of tractors and combine harvesters.

Although the government increased its ownership of agricultural machinery, as of 1973, 87 percent of the tractors were owned by the private sector and the remaining 13 percent were owned by the co-operatives and public sector (Annual Abstract of Statistics, 1973). For example, in Nineveh province the government Machinery Service Station had only 49 combines and 14 tractors in 1969/1970 and the co-operatives owned less machinery. Thus, majority of small farmers used the machinery of the private sector and consequently paid higher rental fees (Warriner, 1969). Another important feature of the government's mechanization policy is that the range of machinery consisted mainly of

types used for land preparation whereas the use of a wider range of specialized equipment was still very limited.

The Official Justification for Increasing Imports of Agricultural Machinery

Successive Iraqi economic plans contain no detailed arguments justifying increased imports of agricultural machinery. However, the documents available appear to a great extent to equate modernizing Iraqi agricultural with promoting its mechanization. Similarly, the economic plans incorporate no thorough assessment of the probable impact of the mechanization program on the structure of Iraq's agricultural sector. No adequate consideration has been given to the suitability of agricultural machinery operating in varying geographical and climatic conditions or to its efficient use with appropriate managerial and technical expertise. Such omissions may be attributed to the lack of adequate field studies relating to these issues.

The pace of mechanization was accelerated by the commitment of the Ministry of Agriculture and Agrarian Reform to mechanize. The nature of this transition to a modern mechanized agriculture, and its timing, is not discussed in detail or defined very rigorously by the Ministry of Agriculture and Agrarian Reform.

The mechanization survey conducted by the Supreme Agricultural Committee advanced the following arguments justifying government policy in this regard:

- 1) As Iraq's agriculture still operates to a great extent within a primitive technology the introduction of modern machinery should lead, not only to an improvement in working conditions, reduced drudgery and increased efficiency for farmers, but also to an increase in their financial returns;

- 2) The implementation of a mechanization program should not exacerbate unemployment for the following reasons:
 - a) Iraq is a country with a relatively low population density;
 - b) The current expansion occurring in non-agricultural sectors, especially within the oil and related industries should be sufficient to absorb the surplus labor released by a policy of mechanizing Iraqi farms;
- 3) The government's final goal is to replace the private hirers of agricultural machinery with co-operative machinery to ensure the elimination of exploitation practices (Ministry of Agriculture & Agrarian Reform, 1974).

Evaluation of Iraq's Mechanization Policy

In Iraq, the weakest link in the process of farm mechanization has been the field of research and development. A sound mechanization program necessitates the provision and flow of accurate information in order to:

- 1) Identify and measure the effect of farm mechanization on agricultural output;
- 2) Identify and measure its effect on employment;
- 3) Study and assess the private and social costs and benefits;
- 4) Study each of the above three points for different kinds and levels of mechanization.

The policy makers on the Supreme Agricultural Committee appear to identify a positive correlation between mechanization and increasing agricultural production. Productivity was expected to rise due to:

- 1) A higher intensity of cropping on land already under cultivation;

- 2) The bringing of additional land under cultivation and the improvement of previously uncultivated land;
- 3) Improved quality of produce through improved cultivation practices;
- 4) Shifts in cultivation patterns to include higher value crops.

A mechanization study conducted by the Supreme Agricultural Committee indicates that the mechanization of cereal production could increase productivity from 200 to 320 kilos per- Donum (Donum= 0.25 hectare) because of the greater depth of cultivation and similar factors. Further benefits were expected to accrue from more opportune and efficient harvesting as a result of mechanization; the study notes that delays of 20 to 25 days in harvesting wheat and barley frequently involve a reduction in yield per -Donum of up to 50 percent (Ibid, 1974).

The study concludes that an estimated investment of 40 million Dinar in mechanizing wheat and barley cultivation on Iraqi farms would increase cereal production revenues from approximately 56 million I.D. to 153 million I.D. annually. The Study predicted return of 2.425 I.D. on each I.D. invested in such a mechanization program.

A major weakness of this assessment of the economic case for agricultural mechanization in Iraq is that the increased return of 97 million I.D. takes no account of such vital factors as the social cost involved and the varying suitability of climate and terrain to mechanization in different regions. Moreover, the study failed to differential between potential benefits accruing as a result of the introduction of mechanization and the country's actual ability to achieve and sustain such a rate of development. The difficulty in obtaining the potential benefits is due to administrative and technical

deficiencies such as the lack of skilled labor to operate such machinery, lack of spare parts and inadequate maintenance services. A bias of the study is its heavy emphasis on mechanization as the element capable of stimulating levels of production in the agricultural sector, while neglecting such important factors as adequate credit and marketing facilities and improving farmers' incentives to increase production. To understand the impact of the mechanization program on employment, it is important to briefly discuss the theoretical issue of underemployment in Iraq's agriculture.

Underemployment can be defined as the existence of a portion of the labor force, which can be removed without reducing output, in other words it exists where the marginal product of labor is zero. Professor Lewis' chief contribution to the concept of underemployment is his explanation of the existence of greater than zero wages when the marginal product of labor is zero. Lewis explains, by reference to tradition and lack of alternatives, the existence of self-employed labor which receives a positive wage, but whose marginal product is negligible. In peasant agriculture, each family member receives the family's average product regardless of contribution. Since there are no opportunities for receiving a wage higher than the average product of the family's farm, there is no motivation to leave the farm, and the average product will be greater than the marginal product (Lewis, 1964).

Schultz took the opposite view, representing the other extreme of the argument by insisting on the non-existence of underemployment. According to Schultz, "The conclusion with respect to the doctrine that a part of the labor working in agriculture in poor countries has a marginal productivity of zero is that it is a false

doctrine. It has roots that make it suspect. It rests on shaky theoretical presumptions (Schultz, 1964).

In face of such conflicting attitudes, one might conclude that even if there is a positive marginal product, underemployment can still exist. The situation is complicated by the seasonal nature of agricultural activity – labor may be used to the full in peak time but there will still be underemployment at non-peak times. The labor of the typical large peasant family in Iraq usually remains unemployed during the period between the winter and summer seasons. On average, the family has approximately 100 idle days a year (Rashid, 1972).

Official reassurances that the implementation of mechanization programs would not adversely affect employment prospects in the rural regions, due to their relatively low population density, are equally dubious as there is no necessary connection between the two. As Iraq's agriculture is still largely confined to the traditional mode, seasonal unemployment is a well-recognized feature, despite the relatively low population density (Ministry of Planning, 1973). In a study by M. Ahmed, it was estimated that the farmers in Al-Wahda agricultural project near Baghdad work an average of 53 days per year. They tend to work during the planting and harvesting seasons but do very little in between. One of the reasons for the predominance of unemployment in rural Iraq is that the typical Iraqi farmer does not practice a crop rotation system (Ahmed, 1973).

According to the Ministry of Planning statistics, the total labor force increased from 1.631 million in 1960 to 2.664 million in 1970, or at an annual growth rate of 6.3 percent. During the same period recorded unemployment had increased from 31,400 in 1960 to 158,200 in 1970 (Ministry of Planning, 1970). Moreover, the expansion occurred

in the capital-intensive oil-producing sector and related industries offers extremely limited prospects for absorbing unskilled surplus labor. Thus, contrary to government reassurances, the surplus of the self-employed labor released from the agricultural sector by the implementation of a mechanization program might tend to exacerbate rural underemployment and thereby accentuate the migration of people from rural regions. Hence, the introduction of mechanization in traditional agriculture unaccompanied by a comprehensive strategy for social change might imply a net cost in the form of rural unemployment. Population drift may be represented by even further concentrations in the towns, thus aggravating the problem of urban unemployment. The expected social benefits of mechanization will be realized when it is accompanied by a comprehensive and integrated plan for achieving agricultural development through major readjustments in crop patterns, farming practices, efficient credit facilities, improved marketing structure, and an adequate infrastructure.

The Supreme Agricultural Committee reviewed Iraq's requirements for agricultural machinery through 1980. Even assuming that the supplementary machines and equipment quoted in the study suffice to achieve the target (projected requirements based on the estimated area of cereals under cultivation up to 1980) set by the Ministry of Agriculture and Agrarian Reform, it is evident that their full economic and operational efficiency is dependent upon a comprehensive plan, coordinating the supply of spare parts, the provision of maintenance stations and the training of skilled operators and technicians to man the latter. In the district of Nineveh, for example, an acute problem is posed by the incompatibility of Ministry-supplied Mark 70 and 80 Antar brand tractors with the heavy soils of the local terrain. Moreover, 20 percent of the harvesters in the

same region were out of order due to lack of spare parts during April 1976(D.G.A.C., 1976). Khammo stated, that the government imported combine harvesters in use were designed for higher productivity agriculture and that their use on low productivity land required more fuel and depreciation costs, since more than half the capacity remained unused (Khammo, 1977).

Promoting Mechanization within the Land Reform Co-operatives

The Ministry of Agriculture and Agrarian Reform adopted the following measures with the intention of hastening mechanization within the co-operatives:

- 1) The Agricultural Co-operative Bank issued credits at a low interest rate of three percent to the co-operatives desiring to purchase agricultural machinery;
- 2) The Organization of Tillage, Farm work and Agricultural Machinery Hire Stations accorded priority rights to co-operatives availing themselves of the facilities and services offered. Considerable discounts on the hiring prices of agricultural machinery compared to those charged by the private contactors were given. The Ministry of Agriculture and Agrarian Reform, in its attempt to accelerate the process of mechanization within the co-operatives, speeded up the transfer of machinery from the Organization of Tillage, Farm work and Agricultural Hire Stations (O.T.F.A.M.H.S.) to the co-operatives (D.G.A.C., 1976).

The remaining part of this section will be devoted to the study of these measures.

- 1) Despite the favorable credit facilities offered by the Agricultural Co-operative Bank, the loans issued for the period 1965 to 1973

were insufficient to achieve the stated aim of mechanizing the co-operatives' farm activities. In 1972/3 the total value of loans granted by the Agricultural Bank for this purpose was 499,486 I.D. The average obtained by each co-operative was 393 I.D. compared with a cost of not less than 1191 I.D. for the purchase of one tractor (Ibid, 1976).

- 2) The farmers' demands for tractors and harvesters exceeded their availability through the co-operatives. The problems encountered in hiring equipment from the stations (especially tractors and harvesters) become all the more apparent because the 452 tractors and 36 harvesters owned by the co-operatives themselves were totally inadequate for the farming of the areas under cultivation (which totaled 12,046,994 Donums). In other terms, this would mean that on average each tractor and harvester would be operating on an area of 26,642 and 334,639 Donums respectively. In certain districts problems of machine availability, even when account is taken of the private hirers, were still acute during peak periods of tillage and harvesting. For example, in Nineveh province in 1973 the agricultural hire stations had a total of 165 tractors and 125 harvesters at their disposal. In contrast, the private hirers owned 2,100 tractors and 2,150 harvesters for the province.
- 3) Most hiring stations lack both qualified technicians and skilled drivers. The lack of tools, spare parts and regular maintenance

results in the frequent failure of important items of machinery to remain operative. This was evident in the rain-fed zone where in 1976 20 percent of the harvesters were immobilized awaiting spare parts (Al-Talib, 1976). In addition, the geographical concentration of the government machinery rental stations in four provinces (Baghdad, Kirkuk, Dywaniya and Mosul) reduced its capability to service the remaining fourteen provinces.

- 4) The machinery hired out by the Agricultural Hiring Stations was not effectively utilized in term of actual working hours, which caused a high fixed cost for providing these facilities (Ministry of Agriculture and Agrarian Reform, 1976). A study by O.L. Khammo showed that the estimated cost of tractor ploughing in the public sector was 1.588 I.D. per hour. At a rental charge of 4.0 I.D. per eight-hour day, or 0.50 I.D. per hour, the rental station was losing at least 1.088 I.D. per hour of ploughing. With an average annual utilization of 392 hours per tractor, the annual loss was 426.5 I.D. per tractor (Khammo, 1977). Although this was in accordance with government Policy of subsidization, there were no plans to reduce these subsidies in the future as oil is an exhaustible asset and revenues from oil can diminish in the future.

The losses are basically due to the under-utilization of the agricultural machinery, as a large percentage of the machinery fleet was idle throughout the year and the main reasons are, for example, that tractors are used mainly for ploughing and Consequently,

the use of the tractor is concentrated into times when ploughing is carried out, which is March and April for summer crops and September and October for winter crops. The other important factor is caused by the wide range of tractor models, which impedes speedy repair and maintenance.

The experience of some socialist countries in the past such as Russia, East Germany and Czechoslovakia, suggested that mechanization through government machinery rental stations is relatively expensive, and rental stations there have been liquidated primarily because of economic losses (Khammo, 1977).

The Land Reform Co-operatives in Iraq were not in a better position as far as utilizing machinery is concerned. A study carried out in Iraq by the F.A.O. in 1971 produced some data relating to machinery operations in the co-operative sector (F.A.O., 1971). The study concluded that “tractorization in the co-operative sector was complete failure and tractors were under-utilized and operating at a loss.” This was followed by another official report published in 1972, which indicated that co-operative tractors were operating below break-even point (Ministry of Agriculture & Agrarian Reform, 1972).

The decision taken and financed by the Ministry of Agriculture and Agrarian Reform in 1974 to reduce the selling price of all types of agricultural machinery by 30 percent was one measure facilitating the purchase of necessary equipment. The granting of such a sizable discount was designed to increase the farmer’s incentive to acquire agricultural implements and machinery, hence accelerating the process of mechanization. It is instructive to assess the impact of this measure (Ibid, 1975).

Whereas such a pricing policy does tend to promote the purchase of agricultural machinery, the vast majority of those availing themselves of this newly accorded facility

will inevitably be relatively well-off large-scale farmers. The small peasant farmer with only meager resources at his disposal remains largely unaffected by this change in pricing policy. Against a background of prevailing uncertainty of market prices, agricultural produce farmers, especially those with smallholdings, would be at risk to increase their investments by acquiring more expensive machinery. An individual farmer has greater confidence in adopting innovatory machinery when secure in the belief that he will not be exposed to wide fluctuations in prices affecting his agricultural operations and income.

From 1971 onwards Iraq's marketing sector underwent a turbulent period reflecting imminent changes designed to support the extension of state control, several marketing organizations were launched during this transitional stage with the aims of eliminating the middleman, establishing government marketing centers where produce could be sold at pre-determined prices and promotion what is called "stable prices" for agricultural produce. Political motivations were foremost in the decision to adjust agricultural prices to levels favoring the urban consumer. However, this action would tend to blunt the incentives supposed to be generated by the 30 percent reduction in the prices of agricultural machinery.

A further factor impeded the full realization of the mechanization plan was the continuous discrepancy between actual and projected expenditure on importation of machinery. The Ministry of Planning records indicated that there were large discrepancies between the sums originally allocated for this purpose and those actually authorized to be distributed (Ministry of Agriculture & Agrarian Reform, 1976).

Although the disparity between credits allocated and funds distributed for imports of agricultural machinery has in fact decreased through the years, the total elimination of

this budgetary anomaly has not been achieved. Its continuing existence can be largely attributed to administrative bottlenecks. Efficiency levels might have responded positively to a thorough reform in the administrative structure, but this proposition has proved to be far too delicate and sensitive a political issue to be resolved.

Yet another crucial aspect of government policy for farm mechanization is the pricing policy of the Machinery Hiring Stations. Although the by-laws of government Hiring Stations emphasize the necessity of covering operating costs, in practice these guidelines have been disregarded. Consequently, charges for machinery services have been maintained at a low level, which bears little relation to the real costs, incurred and the economic solvency of these Hiring Stations has been adversely affected.

While the adoption of this policy may be justifiable in the short term on the grounds that it would give an incentive to the farmers to use advanced technology, it is very difficult to maintain such policy endlessly as Iraq's economy relies heavily on oil revenues that can fluctuate according to the situations that prevails in the international oil markets.

Summary and Conclusions

The Ministry of Agriculture and Agrarian Reform in equating mechanization with agricultural productivity adopted a policy of increasing imports of agricultural machinery, particularly after the introduction of the first agrarian reform in 1958. It was recognized that the rise in the number and type of agricultural machinery imported was carried out without adequate research to their compatibility to the terrain and the availability of skilled labor.

Despite the government's increased imports of agricultural machinery during the seventies the private sector continued to maintain the major share in this field. For example, in 1973, 87 percent of the tractors were owned by the private sector and the remaining 13 percent were owned by the co-operative and public sector. Consequently, members of co-operatives continued to pay high rental charges, as the government machinery services were neither efficient nor adequate in meeting the demand of small farmers. Co-operatives in general did not play an important role in extending farming techniques among their members.

Experience in developing countries suggests that mechanization entails far-reaching consequences for the socioeconomic structure of those societies where it is being introduced. In Iraq's case, the policy makers failed to differentiate between potential benefits occurring as a result of mechanization and Iraq's actual ability to reap and sustain such benefits. The main feature of the government's rental stations, designed to provide mechanical services to the small farmers at subsidized prices, was the low annual utilization of machinery due to mismanagement that caused high operational and large financial losses and its costs was covered at public expense. While such policy could be justified in the short –run as oil revenues increased dramatically during the seventies, it could hardly be sustained in the long run because oil revenues, which are an exhaustible asset, basically finance it.

List of Abbreviations

F.A.O. Food & Agricultural Organization

I.L.O. International Labor Office

I.B.R.D. International Bank of Reconstruction & Development

D.G.A.C. Directorate General of Agricultural Cooperation

A.B. Agricultural Bank

S.A.C. The Supreme Agricultural Committee

O.T.F.A.V. H.S. Organization of Tillage, Farm work & Agricultural Vehicle Hire

List of Terms

Iraqi Dinar = \$ 3.37 in 1978

Donum = 0.25 Hectare

Fellah: singular of “peasant” in Arabic

Fallaheen: plural of “peasant” in Arabic

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