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## **The role of agricultural cooperatives in economics and social development in Iraq**

Hassan Younis Al-Samarrai

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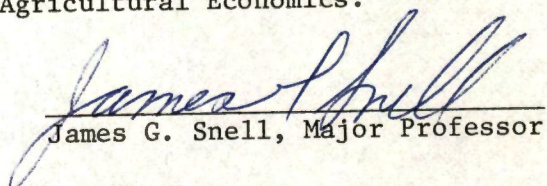
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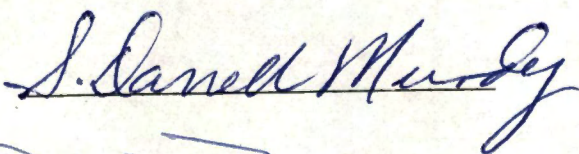
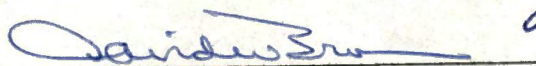
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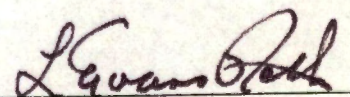
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James G. Snell, Major Professor

We have read this thesis  
and recommend its acceptance:

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Thesis

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THE ROLE OF AGRICULTURAL COOPERATIVES  
IN ECONOMICS AND SOCIAL  
DEVELOPMENT IN IRAQ

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

Hassan Younis Al-Samarrai

March 1978

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## ABSTRACT

The study reported herein is based on an investigation of the available literature in both Arabic and English on the role of agriculture cooperatives in economic and social development in Iraq.

The study reveals that agriculture cooperative movement is multi-purpose and is supported, encouraged and directed by the national government.

Throughout its development, the agriculture cooperative movement faced numerous problems of both social and economical nature. But after 1968, the government devoted much effort in an attempt to eliminate or lessen the burden of these problems. In all its plans, government policy aimed to assist cooperatives in overcoming the problems. This support was based on two main objectives:

1. To increase agricultural production.
2. To bring about social and economic changes for rural areas in which the majority of citizens earning low incomes reside.

The performance of agricultural cooperatives has not solved all problems, but the performance in the last several years has progressively improved. Thus, for cooperatives to reach the goal set by the government reevaluation, expansion of the present cooperative programs is urgently needed.

The basic thrust of this thesis is to outline applied research procedures including data needs, to use in attaining the general economic goals of cooperatives engaged in marketing activities.

## TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION . . . . .	1
Objectives . . . . .	10
Justification . . . . .	10
II. COOPERATIVE DEVELOPMENT IN IRAQ . . . . .	12
The Role of the Iraqi Government in the Cooperative Development . . . . .	12
The Establishment of the General Union of Agricultural Cooperatives . . . . .	20
Summary . . . . .	21
III. THE ROLE OF THE COOPERATIVE IN THE SOCIETY ADVANCEMENT . . . . .	24
The Social Functions of Agriculture Cooperatives . . . . .	25
Agricultural Cooperative Extension Programs . . . . .	26
Agricultural Mobilization . . . . .	29
Cooperative Supervision . . . . .	37
Economic Functions of Agricultural Cooperatives . . . . .	39
Animal and Plant Production . . . . .	39
Goals for Iraqi Agricultural Cooperatives . . . . .	43
Agricultural Cooperative Marketing . . . . .	44
Factors Which Influence Cooperative Marketing . . . . .	47
Price Stabilization . . . . .	49
Annual Variations . . . . .	51
The Production of Product Output . . . . .	51
The Estimation of Production Costs . . . . .	53

CHAPTER

PAGE

Marketing Framework . . . . .	54
Marketing Procedures . . . . .	55
Financing . . . . .	62
Marketing and Financing Problems and Proposed Solutions . . . . .	66
Proposed Solutions . . . . .	66
Summary . . . . .	71
Economic Model for Silos and Storages Numbers, Size and Location . . . . .	72
IV. SUMMARY AND RECOMMENDATIONS . . . . .	76
Recommendation . . . . .	80
Conclusions . . . . .	81
BIBLIOGRAPHY . . . . .	83
VITA . . . . .	87

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## LIST OF TABLES

TABLE	PAGE
I. HISTORICAL EVOLUTION OF THE COOPERATIVE . . . . .	2
II. NUMBER, SIZE AND CAPITAL OF COOPERATIVES IN IRAQ BY TYPES OF COOPERATIVES UP TO 1958 . . . . .	4
III. NUMBER OF COOPERATIVES, NUMBER OF MEMBERS, SHARE CAPITAL AND RESERVES, IRAQ, 1958, 1960 to 1969 . . . . .	5
IV. GOVERNMENT EXPENDITURE FOR CONSTRUCTION, ADMINISTRATIVE AND PERSONNEL INVOLVED . . . . .	13
V. AGRICULTURAL COOPERATIVES AND THEIR MEMBERS UP TO 12/31/1976 . . . . .	14
VI. LOANS PAID TO THE AGRICULTURAL COOPERATIVES FROM AGRICULTURE COOPERATIVE BANK AND OTHER SOURCES . . . . .	15
VII. SHOWS THE NUMBER OF AGRICULTURE COOPERATIVES, BENEFICIARY AND THE COVERAGE AREA FROM 1961-1975 . . . . .	16
VIII. NUMBERS OF COLLECTIVE FARMS AND THE COVERAGE AREA . . . . .	31
IX. THE PERCENTAGE OF EACH SOURCE OF HOLDINGS IN NEW COLLECTIVE FARMS . . . . .	32
X. NUMBER OF AG. COOP. AND COLLECTIVE FARMS UP TO APRIL 1, 1976 . . . . .	33
XI. DISTRIBUTION OF COLLECTIVE FARMS IN IRAQI AREA . . . . .	34
XII. MACHINERY OWNED BY COOPERATIVES ACCORDING TO THE REVOLUTIONARY COMMAND COUNCIL LAW 233, 1969 . . . . .	36

## TABLE

## PAGE

XIII.	MARKETING QUANTITIES OF ANIMAL PRODUCTION PRODUCED FROM THE PROJECTS OF ANIMAL WEALTH WHICH IS RELATED TO THE AGRICULTURAL COOPERATIVES, UNTIL DECEMBER 31, 1975 . . . . .	40
XIV.	THE INVOLVEMENT OF COOPERATIVES IN ANIMAL PRODUCTION UP TO 12/31/1976 . . . . .	41
XV.	THE INVOLVEMENT OF COOPERATIVES IN CROP PRODUCTION IN TERMS OF VOLUMES OF OUTPUT . . . . .	42
XVI.	WHEAT PRODUCTION IN AWAYNAT AGRICULTURAL COOPERATIVE FOR THE YEAR 1974-1975 . . . . .	42
XVII.	AGRICULTURAL COOPERATIVE MARKETING DEVELOPMENT . . . . .	46
XVIII.	DEVELOPMENT OF AGRICULTURAL COOPERATIVE MARKETING BETWEEN 1969-1974 IN VOLUMES HANDLED . . . . .	48
XIX.	AMOUNTS OF LOANS PAID BY THE AGRICULTURAL BANK TO THE AGRICULTURAL COOPERATIVES, (I.D.) . . . . .	63
XX.	TOTAL LOANS BORROWED FROM THE AGRICULTURE BANK IN FORM OF CASH . . . . .	64
XXI.	AGRICULTURAL COOPERATIVE LOANS BORROWED FROM THE AGRICULTURE BANK AND OTHER SOURCES . . . . .	65
XXII.	AGRICULTURAL SUPPLIES GIVEN TO COOPERATIVES . . . . .	69
XXIII.	LOANS GIVEN BY THE AGRICULTURAL COOPERATIVE BANK TO THE AGRICULTURAL COOPERATIVES . . . . .	70

LIST OF FIGURES

FIGURE	PAGE
I. ILLUSTRATE THE NUMBER OF AGRICULTURE COOPERATIVES, BENEFICIANS AND THE COVERAGE AREA FROM 1961-1975, . . . . .	22
II. ILLUSTRATE LOANS PAID TO THE AGRICULTURAL COOPERATIVES FROM AGRICULTURE COOPERATIVE BANK AND OTHER RESOURCES . . . . .	23
III. TOMATO PRICE ANNUAL VARIATIONS, BAGHDAD , . . . . .	52
IV. MARKETING OF WHEAT, BARLEY AND RICE . . . . .	56
V. CHANNELS INVOLVED IN MARKETING THE PRODUCTS WHICH INCREASES THE COST OF PRODUCTION. . . . .	57
VI. MARKETING THE GENERAL SECTOR'S PRODUCTION (EXCLUDING GRAINS). . . . .	58
VII. MARKETING OF COLLECTIVE, COOPERATIVE, AND SPECIAL FARMS PRODUCTION (EXCLUDING GRAINS) . . . . .	59

## CHAPTER I

### INTRODUCTION

Agriculture cooperatives have been noted in history as far back as the ancient Babylon era (Table I). But in a modern sense, cooperatives appeared during the 19th Century. By the turn of the 20th Century, national governments of developing countries began stressing agricultural cooperatives as a means of accelerating economic development and promoting social justice. The Indian agriculture cooperatives were initiated by the foreign government which ruled that country and the performance of those cooperatives was not impressive. A similar situation existed in Iraq in 1920 and cooperatives failed due to lack of experience, lack of capital and lack of cooperative spirit.

In 1958, the agriculture cooperative movement in Iraq achieved the backing of the government as a tool for social and economic development. Since 1958, significant growth has resulted due to the support of the government. This can be seen in Tables II and III. Before 1958, there were only 22 agriculture cooperatives with 1,836 members and 4,061,000 Iraqi Dinars as capital. In 1961-1962, the membership had climbed to 2,385 members in 17 coops. By 1967-1968, the number of agriculture cooperatives had risen to 462, with a combined membership of 60,955. Capital consisted of 107,602 Iraqi Dinars and 41,787 Iraqi Dinars as reserves.

TABLE I  
HISTORICAL EVOLUTION OF THE COOPERATIVE\*

Evolution of the Cooperative	Main Period of Development	Nature of Development
Ancient Egyptian Era	3100 to 1150 B.C.	Craftsmen and artisan associations.
Babylonian Era	3000 to 540 B.C.	Co-op tenant farming.
Early Greek Era	3000 to 325 B.C.	Burial benefit and craftsmen's societies.
Ancient Chinese Associations	200 B.C.	Loan societies.
Roman Era	510 B.C. to 475 A.D.	Burial benefit and craftsmen's societies.
Early Christian Era	1 to 313 A.D.	Artisan societies with burial benefits.
Barbaric Age	476 to 700 A.D.	Co-op development stifled.
Rise of Islam	600 to 1490 A.D.	Cooperation stressed as part of the faith.
Middle Ages	500 to 1400 A.D.	Gilds developed. Cheesemaking cooperative formed.
Renaissance Period	1400 to 1750 A.D.	Joint stock companies organized.
Industrial Revolution	1750 to 1944 A.D.	Mutual fire associations were begun.

TABLE I (Continued)

Evolution of the Cooperative	Main Period of Development	Nature of Development
(a) Penny Capitalists	1769 A.D.	Weavers organized a consumer cooperative.
(b) Rochdale Society	1844 A.D.	Modern era of cooperation began with consumer cooperatives. Farm and Credit cooperatives were early developments.
(c) Raiffeisen Credit Societies	1860 A.D.	Consumer credit unions began to be developed.
Atomic and Space Age	1945 A.D. to present	Second century of cooperation began with increasing emphasis on business aspects. Cooperatives became much more significant.

\*Roy, E. P. Cooperatives: Today and Tomorrow, 1969. (The Interstate Printers and Publishers, Inc. Danville, IL) pg. 57.

TABLE II  
 NUMBER, SIZE AND CAPITAL OF COOPERATIVES IN IRAQ BY  
 TYPES OF COOPERATIVES UP TO 1958\*

	Number	Number of Members	Capital
Agricultural Cooperatives	22	1,836	ID 4,601
Consumer Cooperatives	53	5,705	ID 27,443
Credit Cooperatives	22	522	ID 231
Housing Cooperatives	<u>81</u> 158	<u>16,614</u> 24,677	ID <u>469,792</u> 502,067

\*Source: Gordon H. War, "Farmer Cooperatives in Iraq" (Beruit: American University of Beruit, December, 1967), p. 2.

TABLE III

NUMBER OF COOPERATIVES, NUMBER OF MEMBERS, SHARE CAPITAL AND  
RESERVES, IRAQ, 1958, 1960 to 1969\*

Year	Number of Agricultural Cooperatives	Membership	Share Capital ID <sup>a</sup>	Reserves ID
1958	22	1,836	4,601	-
1960-61	17	2,385	-	-
1961-62	50	8,795	3,117	2,034
1962-63	65	11,833	7,312	3,102
1963-64	222	33,176	27,427	7,632
1964-65	297	38,743	56,239	16,061
1965-66	364	43,185	71,157	23,072
1966-67	394	54,651	100,657	41,560
1967-68	462	60,955	107,602	41,787
1968-69	584	72,374	-	-

\*Source: Ibrahim A. Adbullah, Unpublished data (Baghdad: Institute of Cooperation and Agricultural Extension, 1969).

<sup>a</sup>ID = \$2.80.

In general, a cooperative is formed and operated to provide goods and services to the cooperative members for their financial advantage.<sup>1</sup> This is the same reason why a private entrepreneur invests money in a business; that is, to make a return on his investment. In essence, a cooperative is an enterprise that is owned by the individuals

<sup>1</sup>At times, the social aspects may be equally as important.



who utilize the goods and services produced by the company. Control of the decision-making process is a responsibility assumed by the owners as patrons rather than as investors in the association.

Generally, a farmer cooperative is distinguished by the following characteristics:

1. voluntary participation in the association,
2. democratic control which gives each member an equal vote in the control of the association,
3. limited returns on capital which means that relatively low interest rates will be paid to members who own capital stock, and
4. distribution of net savings on the basis of the members' patronage volume.<sup>2</sup>

The Iraqi Agricultural Cooperative program differs somewhat from the above characteristics in that membership in the agricultural cooperatives by farmers is compulsory.<sup>3</sup> Further, the initiative to form the cooperatives comes from the government rather than from small groups who feel the necessity for cooperation. This mandatory membership violates the voluntary characteristics of cooperatives; however, government initiated cooperatives have been created in many countries, both socialist and nonsocialist (Anschil, p. 30). The major reason for

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<sup>2</sup>The three key Rochdale principles are: (1) democratic control, (2) limited returns on investment, and (3) patronage dividends.

<sup>3</sup>Members are also subject to unlimited liability in that all cooperative members must repay all debts jointly. (As cooperatives become larger, such unlimited liability may become impractical.)

government initiated cooperatives is that both resources and managerial ability are generally too limited in the nongovernment sector for viable cooperatives to be established. Therefore, government may initiate the cooperatives and supply financing and management, with the hope that as the membership gain experience and understanding, control of the cooperative may be shifted from the government to the members. The above seems to give implicit recognition to the dual role of cooperatives in economic and social development as expressed in various publications (Anschil, 22).

Azia (15) conducted a study in 1964 to examine the interaction between cooperation and agricultural productivity. The study was also aimed at showing how cooperatives could increase the productivity of farms. Aziz showed that the proper organization of the cooperative offers the farmers opportunity to make the following technological changes such as:

1. application of chemical fertilizers and pesticides,
2. provision of high yielding seed on planting material,
3. use of improved or more powerful machines,
4. improved storage facilities for crops,
5. better facilities for control and distribution of water, and
6. improved processing facilities.

The study showed that there are two main groups of reasons for preferring the cooperative way rather than the private or state enterprise:

1. the economic reasons which are mainly concerned with the distribution of the farmer's share of aggregate income, and

2. the psychological reasons which are concerned mainly with the notion of motivation and the will to change.

Aziz mentioned the provision of credit for agriculture among cooperatives. Cooperative associations can be organized to provide various types of credit such as (1) seasonal credit, (2) short term credit, (3) medium term credit, and (4) long term credit. He showed that there is a relationship between cooperative credit and agricultural productivity in situations in which farmers have insufficient capital. The availability of cooperative credit can eliminate foreclosures (which can lower productivity through loss of tools, livestock) and facilitate increased agricultural productivity.

The study emphasized the reorganization of rural produce markets as a way of promoting rural development. The cooperative marketing schemes, if properly organized, can provide many services, such as:

1. purchase of the produce from the farmer and sale to consumers or exporters,
2. processing the produce,
3. grading and packing,
4. storage,
5. transport, and
6. utilization of by-products.

In the short run, cooperative marketing can increase agricultural productivity by reducing the margin charged for marketing services so that farm income and investment will increase. In the long run, productivity and income can be increased through cooperative marketing encouragements for the improvement of the quality of its production, processing and packaging. Certain fundamental economic and social

criteria are essential to the success of cooperative marketing projects. In order to justify the cooperative marketing operation on a sufficient scale, there must be a pattern of administrative control (managerial skill, quick decision to buy or to sell and efficient control of processing facilities), that allocates responsibilities and delegates powers.

Cooperation is one means of achieving a higher standard of living, higher income and democratic equality for its members. But above all, agricultural cooperatives can bring social reform to its members. By applying educational and demonstration programs, members of cooperatives may be made capable of reducing the impacts of the social problems on their performance.

In Iraq, the cooperative movement facilitates attainment of social reforms. Included among these desired reforms are:

1. Creation of the spirit of cooperation and coordination.
2. Provision of new educational and cultural services which bring members in touch with the changing world.
3. Reducing illiteracy.
4. Reducing tribal and family disputes.
5. Reducing social and class stratification.
6. Reducing migration to cities.
7. Making farmers proud of their rural backgrounds.
8. Developing leadership among members.
9. Increasing farmers' concern with their surroundings.
10. Stimulating farmers to participate in the development of their communities.
11. Helping farmers to share responsibilities in every day living.

These changes took great efforts on part of the authorities involved because of the numerous problems involved.

Through education and extension demonstration programs, these social changes were initiated. New ambitious programs are being planned to continue development of the Iraqi rural areas. But the goals are still difficult to reach. The goals set for social changes need greater efforts in order to eliminate the social problems and their impact on community development and on agricultural production. Unless effective programs of cooperation, finance and training are provided, continued social progress will be difficult. The attitudes and aspirations of farmers must be taken into account also.

### Objectives

In this setting, a study was made of the agricultural cooperative movement in Iraq. The objectives of the study were as follows:

1. To describe briefly the development of the Iraqi Agricultural cooperative movement.
2. To describe briefly the current general goals of the Iraqi Government for the Iraqi agricultural cooperatives.
3. To identify the prime goals of cooperative marketing associations.
4. To outline applied research procedures including data needs, to use in attaining the general economic goals of cooperatives engaged in marketing activities.

### Justification

The economic functions of a cooperative are not necessarily more important than the social aspects. However, it is doubtful that large

positive social changes will result if the cooperative is not economically successful. Marketing is necessarily a crucial economic function. Improved efficiencies of the other economic functions cannot be achieved without either successful marketing systems or cooperative marketing programs. The focus on marketing problems of cooperatives reflects the above views.



## CHAPTER II

### COOPERATIVE DEVELOPMENT IN IRAQ

The cooperative movement has passed through several states of development. In 1920, several individual attempts were made to form cooperatives, but these attempts failed due to lack of capital, technology and governmental support. But in 1944, the Iraqi Government recognized the importance of the cooperative movement in social and economic development. Therefore, during the period from 1944 to 1958, the number of cooperatives increased, but did not exceed 158 cooperatives, of which 22 were agricultural cooperatives (Table III). The performance of the cooperatives was unsatisfactory due to limitations of finance and scarcity of qualified personnel.

After 1958, the number of agricultural cooperatives increased and this increment was attributed to the governmental support (Tables IV, V, VI and VII).

#### The Role of the Iraqi Government in the Cooperative Development

The role of Iraqi Government support can be summarized as follows:

##### Legislation:

##### 1. 1944-1956

- a. The official recognition of the cooperative movement in 1944 during which the government passed Law Number 27.
- b. The establishment of a special office within the Ministry of Economics to direct the cooperative's affairs.
- c. The establishment of the Agricultural Bank in 1956.

During this year Law Number 65 was passed, which

TABLE IV  
 GOVERNMENT EXPENDITURE FOR CONSTRUCTION, ADMINISTRATIVE  
 AND PERSONNEL INVOLVED\*

Year	Thousands Dollars Allocated for Construction	Number of Adminis- trative and Technical Personnel	Total Expenditures of the Cooperative Institutions in Thousands Dollars
1961-1962	-	14	-
1962-1963	-	-	-
1963-1964	-	-	-
1964-1965	147.13	133	396,896.43
1965-1966	496.84	N.A.	1,463,358.42
1966-1967	296.84	N.A.	1,819,928.35
1967-1968	274.36	525	2,134,275.17
1968-1969	643.62	N.A.	2,769,404.94
1969-1970	1,543.62	N.A.	3,270,057.52
1970-1971	1,057.82	N.A.	3,537,262.50
1972-1973	2,108.83	N.A.	4,242,609.10
1973-1974	1,998.00	1714	5,651,884.93

\*Sources: Al-Khashali, A., "The Role of Government in Agriculture Cooperative Movement," The Agriculture Matter, Baghdad, Iraq, 1975, pp. 42-60, and Faraj, S. M., "The Agriculture Cooperative Movement," 2nd Conference of Agricultural Cooperative, Baghdad, Iraq, 1976, pp. 6-7.



TABLE V  
 AGRICULTURAL COOPERATIVES AND THEIR MEMBERS UP TO 12/31/1976\*

Governorate	Cooperative	Members	Specialized Cooperative	Participating Cooperative
D'hok	63	3,028	1	6
Nineveh	203	29,890	3	18
Arbil	104	12,697	0	13
Tamim	113	15,742	0	8
Sulaimaniya	135	12,302	2	14
Deyalla	79	15,865	1	11
Baghdad	170	21,656	4	4
Al-Anbar	77	5,342	5	10
Babylon	124	21,260	1	9
Kerbala	45	6,878	1	5
Wasit	156	28,801	1	11
Al-Kadesia	104	12,428	1	10
Mothana	54	5,393	4	5
Thi-Qar	113	24,547	0	8
Maysan	113	24,547	4	11
Basrah	38	7,230	4	8

\*Source: Ministry of Planning Statistics, p. 104, 1976.

TABLE VI

LOANS PAID TO THE AGRICULTURAL COOPERATIVES FROM AGRICULTURE  
COOPERATIVE BANK AND OTHER SOURCES\*

Year	Amount of Loans (thousands dollars)	Sources of Loans
1962-1963	42.8	Agric. Coop. Bank
1963-1964	73.5	" " "
1964-1965	174.6	" " "
1965-1966	322.3	" " "
1966-1967	417.0	" " "
1967-1968	875.0	" " "
1968-1969	1,375.6	" " "
1969-1970	3,833.8	" " "
1970-1971	5,992.2	" " "
1971-1972	7,340.4 <sup>a</sup>	Agric. Coop. Capital
1971-1972	6,968.7 <sup>b</sup>	Other sources
1972-1973	14,309.1 <sup>a</sup>	Other sources
1972-1973	13,133.2 <sup>b</sup>	Other sources

\*Source: Al-Khashali, Amer., "Into Agriculture Matter,"  
General Directorate of Agriculture Cooperative, Baghdad, Iraq, 1974.

<sup>a</sup>Includes state organization of grains, state organization of spinning and weaving, state organization of dates marketing and Ministry of Finance--grain marketings.

<sup>b</sup>Between September 1, 1972 to April 30, 1974.

TABLE VII

SHOWS THE NUMBER OF AGRICULTURE COOPERATIVES, BENEFICIARY AND  
THE COVERAGE AREA FROM 1961-1975\*

Year	Number of Coopera- tives	%	Number of Beneficiaries <sup>a</sup>	%	Coverage Area in Acres (thousand of acres)	%
1961	17	194	3,315	246	104.78	172
1962	50	30	11,475	40	283.25	58
1963	65	231	16,058	194	448.72	194
1964	215	18	47,157	-12	1,316.24	20
1965	253	42	41,418	72	1,585.42	23
1966	360	16	71,342	14	1,957.76	13
1967	419	19	81,172	11	2,204.32	28
1968	499	42	90,492	29	2,579.15	28
1969	712	16	115,917	21	3,310.36	12
1970	823	3	139,684	6	3,707.15	5
1971	845	17	147,948	1	3,888.22	8
1972	997	24	149,271	54	4,188.64	57
1973	1,238	11	230,122		6,575.89	
1974	1,380	17	NA	1	NA	100
1975	1,613		232,931		1,066.53	

\*Sources: Al-Khashali, Amer., "Into Agriculture Matter,"  
General Directorate of Agriculture Cooperative, Baghdad, Iraq, 1974;  
Faraj, Samal M., "Agriculture Cooperative Movement in Iraq," The Second  
Conference of Agriculture Cooperative, Baghdad, Iraq, 1976.

<sup>a</sup>Beneficiary.

permitted cooperatives to borrow from a special bank, later known as the Agricultural Bank.

2. 1958-1967

- a. The passage of Law Number 30, in 1958, limited the extent of farm ownership. That same year Law Number 31 called for the establishment of agricultural cooperatives on lands distributed to farmers.
- b. In 1960, the Directorate General of Cooperatives was established.
- c. In 1960, the Directorate General of Cooperatives organized to coordinate the agricultural affairs for all the cooperatives in Iraq.
- d. In 1963, the Center of Training and Research of Cooperatives was established to provide cooperative associations with the help the farmers would need in managing their organizations.
- e. In 1964, Law Number 81 was released which widened the establishment of the cooperatives organizations. Then Law Number 126 was released in 1964 as an amendment to the Law of Agricultural Banking and loan decisions for the cooperatives. The upper committee of land distribution guaranteed the loans for the organization's cooperatives on December 29, 1964 from the Agricultural Cooperatives Bank, with respect to decision of October 18, 1964. (8, 21)
- f. In 1965, a small cooperative institute was established for agricultural education by agreement of the Iraqi Government.

- g. In 1966-1967, programs were set up by the General Directorate of Cooperatives for the improvement of performance of the cooperatives.
3. Since 1968
    - a. In 1970, Law Number 117 was passed to deal with economic problems in the cooperatives.
    - b. In 1971, the Iraqi National Upper Agricultural Committee released Plan Number 39 which was concerned with farm organizations, their creation and activities.
    - c. In 1972, the Higher Agricultural Council released Plan Number 49 for the improvement of Plan Number 5 which was adopted in 1970.
    - d. The establishment of the Specialized Center at Nisson to train personnel to work in collective or state farms.

Financing:

1. In 1959, Cooperative Bank Law Number 163 was implemented to provide loans for cooperatives to invest in machinery and supplies. (8, 21)
2. The Law for the Agricultural Bank was amended by Law Number 126 in 1964. Law Number 126 aimed at providing loans for the cooperatives and limited the interest rate charged to 3 percent.
3. Law 126 also provided loans from other sources for the agricultural cooperatives without interest for cooperative marketing activities.
4. This same law authorized the government to provide all the

capital of the Agricultural Bank, an amount equal to 15 million Dinar, to finance the agricultural cooperatives and their activities.

Technical Personnel:

The cooperative movement was a new movement and needed more leadership than was then available from its membership. The government was obliged to furnish agricultural technicians, to establish cooperative offices in each district, and to furnish these offices with supervisory personnel to oversee the operation of the cooperatives. (8, 21)

The government also established the following:

1. A training institute for agricultural cooperatives in 1963 to train technicians and farmers in partnership with the F.A.O.
2. The Social Agricultural Cooperative Center in 1972 by agreement with People's Democratic Republic of Germany to train managers for collective farms and government farms.
3. Cooperative training centers in each of the 18 governates in the nation to train farmers in cooperative operations.
4. A division of Cooperatives and Collective Farms in each of the Colleges of Agriculture, Management and Economics to train the educated technical personnel to aid the cooperative movement and the collective farms.
5. Educational centers to increase literacy and help the farmers enroll at the agricultural centers to learn agricultural methods at the expense of the government.

6. Provision of funds to send agriculturalists abroad for short term training programs.

Building and construction:

The government financed construction of cooperative headquarters, collective farms, joint cooperatives, training centers and the educational centers (Table IV). (8)

Machinery Supplies and marketing:

Law Number 7 of 1970, issued by the Revolutionary Command Council, stated:

The ownership of machinery, building and all related items plus the land upon which it is constructed in such a way that it's worth 50% of its estimated value. Then if 25% of its estimated value is paid the minister can keep the members of the organization from not paying the rest of the estimated value. The pumps, the location, and the machinery are the property of the Ministry of Land Distribution. (8)

To complement Law Number 7, the government has provided the agricultural cooperatives without paying interests or taxes with the equipment and materials necessary to accomplish their plans. The government has also tried to speed the movement of farm products from the cooperative to the market.

The Establishment of the General Union of Agricultural Cooperatives

The establishment of the Agricultural Union aids cooperatives by supervising their plans and programs. The government finances the Union with sufficient funds so that the Union will be able to accomplish its aims. In 1977 the General Union of Agricultural Cooperatives was consolidated with the General Union of Farmers.

### Summary

Intervention on the part of the government in the agricultural cooperative movement resulted from the high priority placed upon the social and economic development of the country and out of a concern for the pace of such developments.

It was the government's responsibility to indicate a viable project. Government support, at least in the first stages, was considered essential for the survival of cooperatives. However, the ultimate purpose of government support is to nurture the cooperative system to a point of self-sufficiency in terms of finances, technology and administration. Furthermore, the cooperative system will eventually include almost half the population of Iraq (Figures I and II illustrate the number of agricultural cooperatives, beneficiaries coverage area and loans paid) hence its success can have far reaching effects to the entire country.



Legend: ○ number of cooperatives

△ number of beneficiaries

□ coverage area

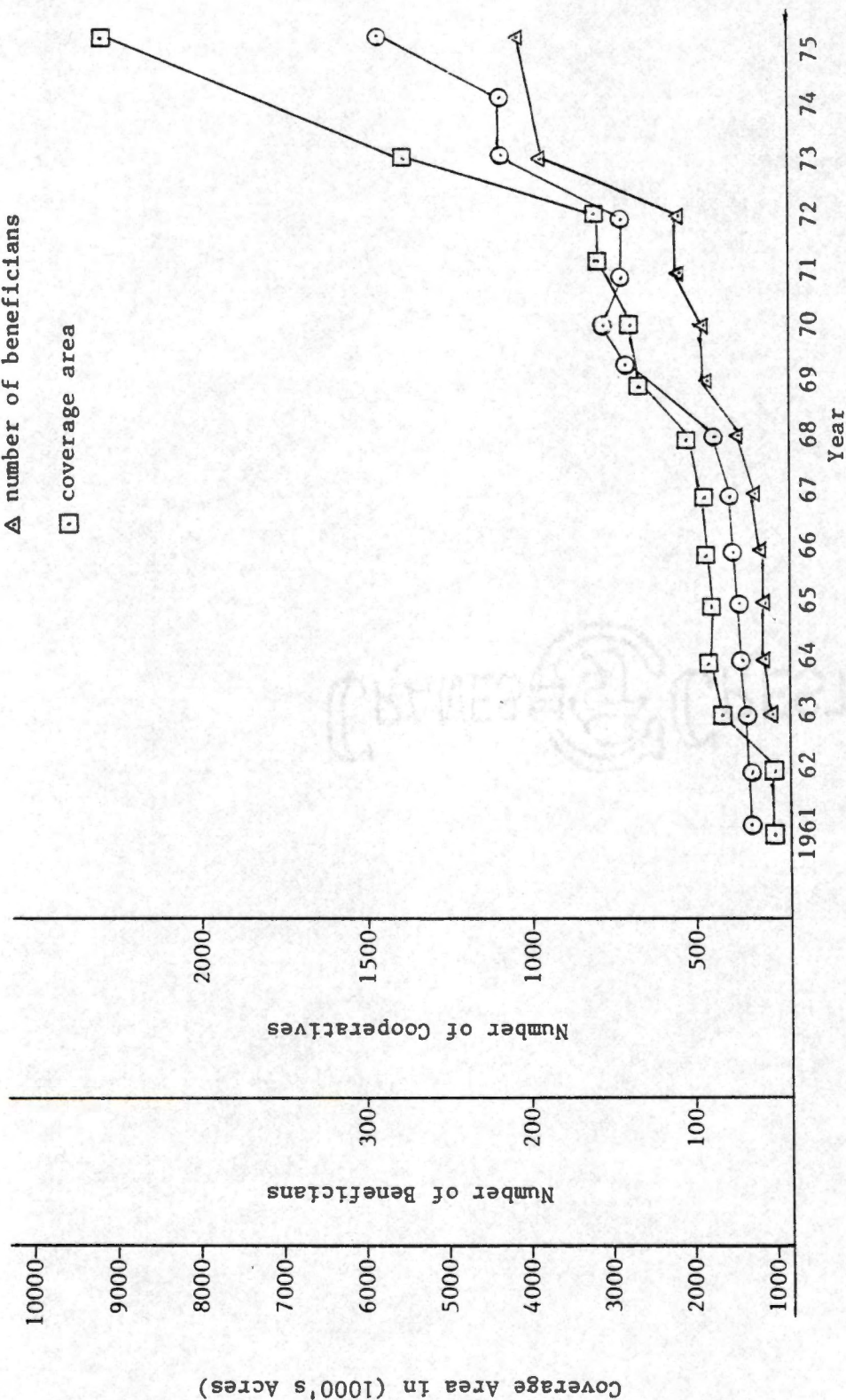


FIGURE I

ILLUSTRATE THE NUMBER OF AGRICULTURE COOPERATIVES, BENEFICIARIES AND THE COVERAGE AREA FROM 1961-1975

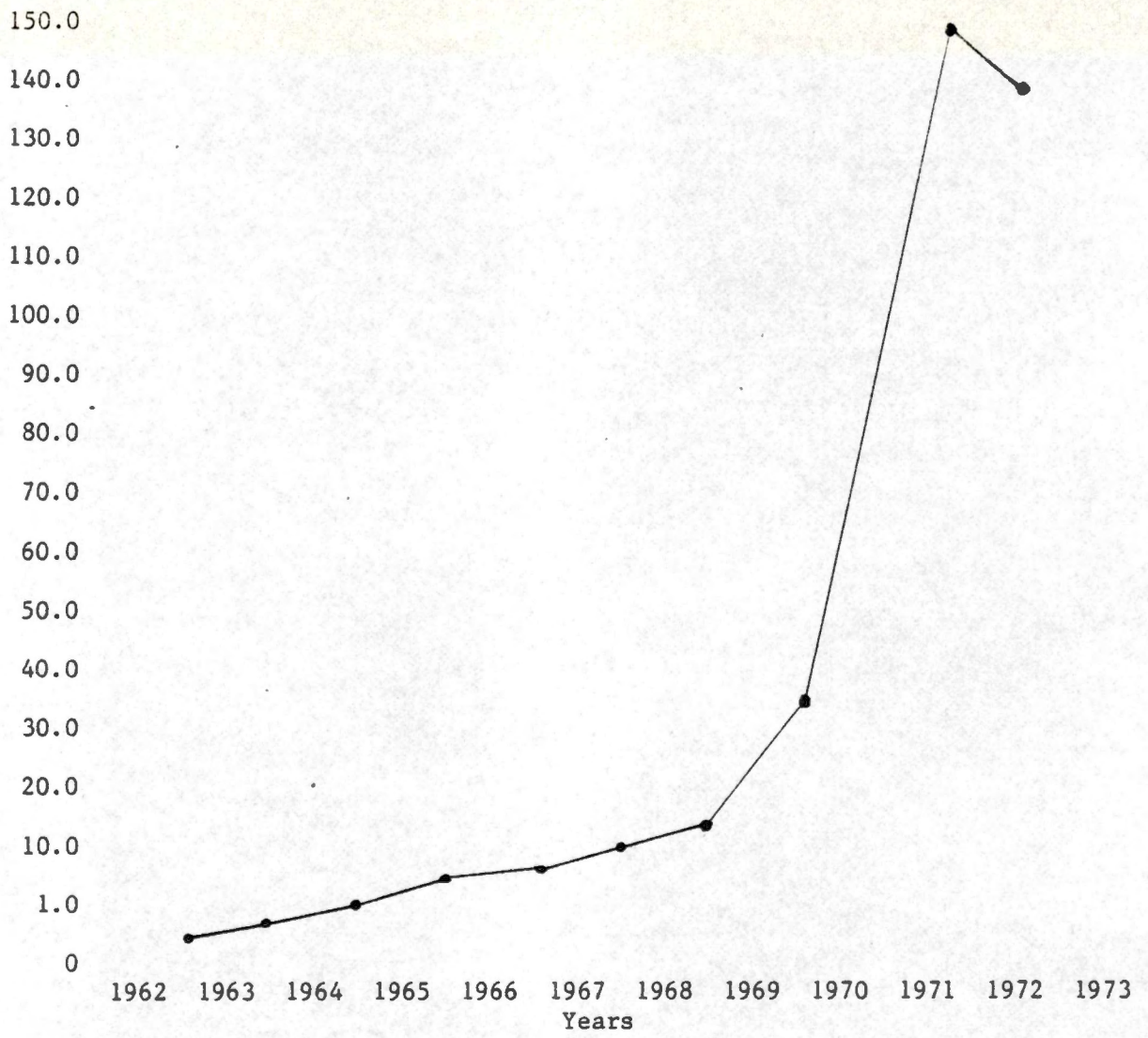


FIGURE II

ILLUSTRATE LOANS PAID TO THE AGRICULTURAL COOPERATIVES FROM AGRICULTURE COOPERATIVE BANK AND OTHER RESOURCES

## CHAPTER III

### THE ROLE OF THE COOPERATIVE IN THE SOCIETY ADVANCEMENT

Cooperation provides one possible mean of achieving higher standards of living, more efficient operations, wider participation by individuals to social decisions, and increase economic, political and social stability.

A cooperative association is a public organization that can play an important social role in the advancement of agricultural society. In Iraq, membership opportunities are being opened and some cases regained for every qualified person, and cooperative associations have been established in every town. The goal is to increase the membership base and to encourage all members to participate to develop the potential leadership within the associations.

The following are the economic and social aims that have been established for the cooperative movement as given by Al-Kubaisy and Al-Dosooky:

#### Economic Aims:

1. Increasing productivity by: (a) Agrarian reform to give ownership of the land to the farmers of that land. (b) Using the most efficient means of production. (c) Improving the marketing process.
2. Increasing the economic returns to all who deal with the cooperatives.
3. Helping to stabilize the nation's economy. (9)
4. Assisting the members of a cooperative society by:
  - (a) Stabilizing prices and controlling inflation. (b) Eliminating exploitation of both producers and consumers.
  - (c) Developing procedures for deciding on social investment priorities and implementing these decisions.

### Social Aims:

1. Creating a spirit of cooperation, sacrifices, and love for better relations between the members of the agricultural cooperative and to strengthen feelings of freedom and individual responsibility as well as individual social responsibility.
2. Developing an educational and cultural service by getting rid of old inherited customs since the improvement of cooperation standards requires an advanced education.
3. Getting rid of illiteracy, poverty, and disease by improving the environment; and making social, educational, health, economic, and recreational projects.
4. Clarifying and acknowledging to the people the aims of our projects and the use of their profits, to show the value of the 'complete cooperative society.'
5. Creating a self-confident feeling and making better social relationships through public meetings.
6. Improving the ethical relationships among the members of the cooperative society, and establishing new customs in the society. Solving the existing problems and making use of the members' spare time.
7. Achieving social equality by reducing disparities in income distribution. To decrease the economic and educational gaps among the various levels of society.

### THE SOCIAL FUNCTIONS OF AGRICULTURE COOPERATIVES

A cooperative organization is an instrument of education. The cooperative movement was an education and social movement before it was a system of business. A cooperative society is a school of thought concerning democratic living for developing responsibility in all the people. The cooperative movement strives for social harmony in contemporary life that is full of social tensions. Cooperatives teach that individuals depend on one another, and they must work together for social progress. The cooperative movement provides the means of social change without resorting to undesirable methods and violence. Cooperative action induces attainment of social goals. These include improved health, more adequate housing, development of leadership,

development of cooperation, acceptance of responsibilities of citizenship, better personal hygiene, and more home conveniences.

### Agricultural Cooperative Extension Programs

The extension programs for agriculture cooperatives have three major targets:

1. Economic development.
2. Social development.
3. Educational development.

Economic development. The main objectives of extension in promoting economic development are:

1. Higher income through increased production.
2. Better financial management.
3. Better marketing methods.
4. More effective resource management and coordination to reduce the effects of risk and uncertainty.

Social development. The main objectives in promoting social development are:

1. Developing personalities.
2. Sharing responsibilities.
3. Reducing social stratification.
4. Developing leadership.
5. Emphasizing pride in the country and community.
6. Improving health.

Educational improvement. In addition to adult teaching programs established by the Ministry of Education, extension programs help raise the effectiveness of adult teaching programs. Together with adult teaching programs, extension programs carry important information related to the field of agriculture, such as information from research, meetings, field studies and field demonstrations.

To the youth, education in agricultural and nonagricultural subjects is available within easy reach because the government stresses that the younger generation will be the future farmers, industrial workers, managers, physicians, officials, and so forth in Iraq. The programs of extension are carried on by graduates from the universities, the agricultural cooperative institutes, agricultural high schools and governate agricultural training centers.

In order to bring about changes in the field of agriculture, the Iraqi Government has set several types of communications in conjunction with the cooperatives in order to assure the implementation of extension programs. The means of communication are: (1) radio and television, (2) pamphlets, (3) motion pictures, (4) field demonstrations, (5) formal class meetings, (6) informal meetings, (7) visiting homes, centers and farms.

Other services. Several ministries provide cooperatives with other services, such as health care, education, social welfare, recreation, electric power, youth activities and safety in recreation. In 1975 the Iraqi Government provided cooperatives with 66 extension centers and 2,960 primary schools. Whereas in 1976, the government provided

cooperatives with 2,252 literacy centers, 191 rural girl centers, 220 sport centers, 94 hobby centers, and 1,070 health clinics.

Educational information covers business phases, such as operating practices, prices received, costs of materials, net savings and other aspects. So that the cooperative will function in a legal manner, members are informed by the directors about the organizational aspects of a cooperative.

The farmers informed that the directors and the elected representatives are the governing body in the cooperative. They establish specific operating policies, make sound policy decisions, and supervise the organization management in operating it in the best interest of its owners.

The educational and training program which was adopted in Iraq is based on four principal elements: (9)

1. Education and Organization in the Agricultural Cooperative regions: The general union of agricultural cooperatives took the responsibility for constructing an educational system to improve the cooperatives' functions. The General Association for the Education of Farmers was initiated in order to instruct and prepare an efficient staff at various levels to educate the members socially and economically.

The educational and training process was implemented in the following manner: (a) meetings, (b) motion pictures, (c) social activity clubs and (d) educational centers to raise literacy.

2. Special Training Programs: Each of the 18 governates has a farmers' education center. These centers prepare short training programs (between 7 to 14 days duration) for their

members, especially for the benefit of the cooperative administrative board. The centers are furnished with all the required facilities as needed during the training program period, such as classrooms, living quarters, and dining halls.

3. Training and Education Programs Outside of the Country:

The purpose is to show the cooperative members the experiences of other countries which already have implemented the cooperative program and use it successfully.

4. Training of Government Agricultural Personnel: The Institute of Agriculture Cooperative and Agricultural Extension trains and educates the government personnel who work in the agricultural sector supervising and demonstrating the operation of the agricultural cooperative. The social cooperative center prepares specialized manpower and trains them to work and function in developing and operating the collective farms. The personnel involved in the program are either agricultural, economics or commercial college graduates or agriculture high school graduates, or cooperative members. The programs include lectures in financing, farm management, administration, marketing, accounting, mechanics and agricultural production.

### Agricultural Mobilization

In order to meet the needs of the people for food and fibers, the Iraqi Government has taken emergency measures to increase agricultural production. For example, in 1970-1971, the government felt it necessary to mobilize all agricultural establishments to produce



additional amounts of wheat, barley, rice, livestock and other products for the needs of the population. Emphasis was put on the role of cooperatives in increasing agriculture production. During those years, the government cooperatives have worked toward increased agricultural production. The results of this emergency mobilization were as follows:

1. Cooperative goals were made to coincide with governmental goals.
2. Farmers were made aware of their responsibilities.
3. Coordination and cooperation were improved.
4. Areas of plantings were increased.
5. Agricultural production was increased.

Collective farming. The establishment of collective farming began in 1969 in an effort to increase agricultural output and to introduce improved planning, technology, governmental supervision and to liquidate individual land ownership.

The number of collective farms increased thereafter. Tables VIII and IX show the numbers of collective farms established in the period between 1972 until 1976. (24) Tables X and XI give the number and distribution of agriculture cooperatives and collective farms.

Types of collective farming. There are three types of collective farm arrangements:

1. Each farmer has his own land but participates in agriculture services with other owners.
2. Groups of farmers work collectively on one piece of land and share responsibilities and returns.



TABLE IX  
THE PERCENTAGE OF EACH SOURCE OF HOLDINGS IN  
NEW COLLECTIVE FARMS

Source	Number	Percentage
1	43	53.0
2	29	35.8
3	<u>9</u>	<u>11.2</u>
Total	81	100.0

\*Source: Habib, K., "Nature and Development of Collective Farms," 2nd Agricultural Cooperative Conference, Baghdad, Iraq, 1976, p. 3.

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TABLE X

## NUMBER OF AG. COOP. AND COLLECTIVE FARMS UP TO APRIL 1, 1976\*

Government	Number of Ag. Coop. in Each Zone				Number of Ag. Coop. in the Zones and Enterprises					
	Local in Reform Land	Local Out of Reform Land	Coll. Farms Total	Parti-cipated	Local in Reform Land	Local Out of Reform Land	Specialize	Total	Coll. Farms	Parti-cipated
D'hok	51	13	65	6	--	--	--	--	--	--
Ninevah	190	17	210	18	7	--	--	--	--	--
Arbil	90	6	96	13	--	5	--	5	1	1
Sulaimaniya	133	7	142	14	1	5	--	5	--	1
Tamim	67	3	70	8	6	16	--	16	--	1
Deyalla	68	10	79	11	2	31	2	37	1	5
Al-Anbar	30	36	71	10	--	--	--	--	--	--
Baghdad	19	1	24	4	1	39	--	157	9	16
Babylon	79	29	109	9	9	16	--	17	1	1
Kerbada	25	19	45	--	--	--	--	--	--	--
Wasit	143	6	150	11	7	15	--	15	12	3
Al-Kadesia	100	6	107	10	4	--	--	--	--	--
Mothana	31	10	45	5	--	6	--	10	00	1
Maysan	103	--	107	11	5	3	--	3	--	1
Thi-car	72	--	73	8	3	6	--	6	0	2
Basrah	30	10	44	8	3	--	--	--	--	--
Total	1231	163	1437	151	48	242	2	271	33	32

\*Source: Al-Suze, A. "Rule of Agricultural Cooperatives and Its Future." The Second Annual Agricultural Cooperative Conference, 1976, p. 5.

TABLE XI  
DISTRIBUTION OF COLLECTIVE FARMS IN IRAQI AREA\*

Governates	No. of Collective Farms	Number of Members	Land Coverage Which Operations in Danum
Nineveh	7	898	54697
Arbil	1	22	355
Sulaimaniya	1	124	2346
Tamim	6	354	17598
Deyalla	3	464	24500
Baghdad	10	987	34084
Babylon	10	888	87007
Al-Kadesia	4	295	21087
Wasit	19	2684	152463
Thi-Qar	12	3158	113680
Maysan	5	707	39647
Basrah	<u>3</u>	<u>179</u>	<u>35789</u>
General Total	81	107060	583253

\*Source: Habib, K. "Nature and Development of Collective Farms," The Second Agricultural Cooperative Conference, Baghdad, Iraq, 1976, p. 3.

3. Groups of farmers work collectively on land units larger than the previous type. This type is a more advanced form of collective farming.

Because of the following factors, progress in establishing collective farms still lags behind the goals of the Iraqi Government:<sup>5</sup>

1. Small land holdings do not permit application of techniques needed for higher productivity.
2. Limits on financing.
3. Limits on transportation.
4. Farmers' attitudes and perceptions of collective agriculture.

Agriculture machinery. In 1969, the Revolutionary Command Council passed Law Number 233 stating that the cooperatives owned all machinery and equipment (Table XII). The reasons for the transfer of ownership of the machinery from the government to the cooperatives are as follows:

1. To help cooperatives reduce the cost of production.
2. The availability of machinery reduces time and improves the skills of the farmers who operate these machines.
3. Reduce governmental responsibilities.
4. Helps the farm work be completed on schedule.

However, this arrangement created problems because farmers were unable to pay machinery prices to replace damaged units or to find replacements. Therefore, to overcome these problems, the government encouraged renting. Lately, the Iraqi Government reduced renting costs by 50 percent and reduced prices of machinery by 30 percent. Thus,

TABLE XII

MACHINERY OWNED BY COOPERATIVES ACCORDING TO THE REVOLUTIONARY  
COMMAND COUNCIL LAW 233, 1969\*

	1970	1971	1972
Number of agricultural cooperative	225	227	256
Number of machines	616	636	637
Horse power	34930	35165	37107
Machines value I.D.	1161711	1165631	1192790
Construction value in I.D.	152653	152913	158441

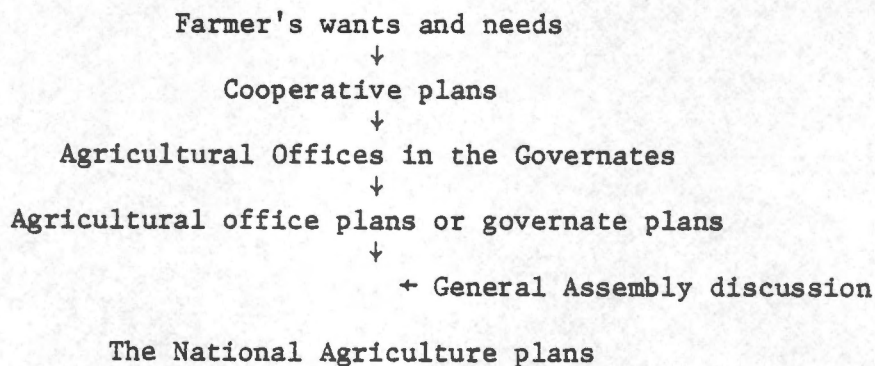
\*Source: The 12th Arab Agricultural Commercial and Industrial Meeting, Abu-Dabi, 4/7/73-4/11/73.

it is now economically feasible for cooperatives to rent rather than buy the machines. (28)

In order to keep machines in working order, the government has encouraged operators to attend courses for a period of 45 days to learn the necessary skills of operation and maintenance.

Agricultural planning. As a general rule, the cooperatives plan according to member wants and needs for successful agricultural production. The cooperatives, then, submit the finished plans to the Centralized Agricultural Offices in the governates. These agricultural offices, in turn, study and coordinate the plans and draw up a new plan taking into consideration the needs of the cooperatives and the country. In an annual meeting, delegates from agricultural offices all over the country meet and discuss the plans according to national interests in the field of agriculture. If these plans coincide with

national goals, then a national plan will be formed and sent to higher authorities for approval. The diagram below helps illustrate the formation of the national agricultural plan in which cooperative plans are an essential part.



Formulating plans are not without difficulties. The government is working toward supplying each cooperative the finance, supplies, and services that is needed for successful agriculture production.

### Cooperative Supervision

The Iraqi government supervises the cooperatives through almost all their social, economic and educational functions. The objectives of the governmental supervision are as follows:

1. To establish leaderships in the formulation of cooperative objectives and policies.
2. To develop coordination in work.
3. To develop a sense of responsibility.
4. To develop leadership in the application of educational standards.
5. To make sure that the cooperative programs that are carried out coincide with national agriculture goals.
6. To evaluate the cooperative's functions.
7. To recognize problems and to find the best solutions.



8. To be able to formulate future problems that benefit members of the cooperatives.
9. To recognize cooperatives need for successful agriculture production.

Supervision of cooperatives is carried out through several channels. These channels are:

1. Representatives of Ministries.
2. Cooperative leaders.
3. Periodic visits to cooperatives by qualified experts.
4. Direct channel between members and higher authorities.
5. News and other mass communication media.

Because supervision is important to the success of governmental programs, supervisors must meet the following qualifications:<sup>4</sup>

1. Leadership,
2. Professional preparation,
3. Health,
4. Enthusiasm,
5. Personal Maturity,
6. Social adjustment,
7. Professional insight,
8. Creativity,
9. Emotional stability,
10. Skill in planning and organizing,
11. Outspokenness,

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<sup>4</sup>Dimock, H.S. and Trecker, H.B. The Supervision of Group Work and Recreation. Association Press, New York: 1951, Chapter 1, pp. 9-11.

12. Good educational background,
13. Understanding of human motivation, and
14. Teaching skill.

#### ECONOMIC FUNCTIONS OF AGRICULTURAL COOPERATIVES

##### Animal and Plant Production

Animal and plant production are key sectors of the Iraqi economy and are two of the important income resources for the nation. National plans were directed to promote these sectors by establishment of specialized cooperatives to undertake the responsibilities of the production of both plants and animals (Table XIII).

Tables XIV and XV give data on the activities of the cooperatives in animal and plant production.

Desoki and Najaffi (1976) found, as a result of field study, that in Awaynat, Governate of Neynava, the return and the yield per Donam\* of wheat were significantly higher than those of the non-cooperative sector (Table XVI). Also the cost of production per Donam of wheat was significantly lower than those of the non-cooperative sector.

This reduction in cost and increase in yield and return seems to indicate the potential of the cooperative system in the field if agriculture.

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\*Acre = 1.6 Donam.



TABLE XIII

MARKETING QUANTITIES OF ANIMAL PRODUCTION PRODUCED FROM THE  
PROJECTS OF ANIMAL WEALTH WHICH IS RELATED TO THE  
AGRICULTURAL COOPERATIVES, UNTIL DECEMBER 31, 1975\*

Governate	Number of Marketed Sheep	Number of Marketed Cattles	Number of Marketed Chickens	Marketed Milk in (kgm).
Baghdad	--	76	615100	4035
Devalla	533	34	50000	--
Karbla	43	--	10000	--
Babylon	2862	118	163200	40644
Al-Anbar	555	66	711700	--
Wasit	2414	336	110400	32810
Al-Kadesia	1264	--	--	--
Mothana	138	74	--	--
Maysan	477	1166	88000	--
Thi-car	1421	322	--	--
Basrah	--	667	133000	--
Timim	3880	230	9000	8158500
Sulaimaniya	--	496	2000	--
Arbil	537	--	--	1614650
Nineveh	13490	933	82620	6420350
D'hok	198	--	--	6420350

\*Source: Statistics of the Directorate General of Cooperative and  
Agricultural Production, p. 10, 1975.

TABLE XIV  
THE INVOLVEMENT OF COOPERATIVES IN ANIMAL PRODUCTION UP TO 12/31/1976

Governorate	No. of Proj.		Sheep		Veal Production		Dairying		Scrollers		Laying Hens		Silk Worms	
	No. of Proj.	Prodl.	No. Animals	Prodl.	No. Animal	No. Prodl.	No. Animal	No. Prodl.	No. Animals	No. Prodl.	No. of Hives	No. of Hens	No. of Prodl.	No. of Worms
D'hok	1	69	1	73	---	---	---	---	---	---	---	---	---	---
Nuneveh	12	9053	30	7177	8	1227	---	---	97	1168	4	171	1	2
Arbil	19	4544	---	---	15	203	3	226	---	1186	---	---	---	---
Sulaimania	12	10064	30	5112	---	---	---	---	97	---	4	89	---	---
Al-Tamim	9	3624	5	1395	2	99	---	---	---	---	1	3	---	---
Deyala	8	1618	---	---	2	---	---	---	---	3122	2	15	---	---
Baghdad	2	272	1	---	5	---	5	75	50	---	1	3	---	---
Al-Anbar	4	838	---	---	4	---	---	---	---	750	2	22	7	26
Babylon	37	5708	---	---	3	---	8	174	26	---	2	11	1	3
Kerbala	1	151	---	---	1	---	---	101	---	1086	1	7	1	8
Wasit	55	15912	---	---	9	---	2	---	4	---	---	---	---	---
Al-Kdesia	28	4680	---	---	---	---	---	---	---	---	---	---	---	---
Al-Muthena	5	714	---	---	6	---	---	---	---	---	---	---	---	---
Hyasan	9	3144	---	---	20	---	---	5	---	---	---	---	10	1
Thi-Qar	15	7472	---	---	7	---	---	---	---	---	---	---	---	---
Basrah	---	---	---	---	6	---	---	---	---	---	5	133	---	---

\*Source: Ministry of Planning Statistics, 1975, p. 106.

TABLE XV

THE INVOLVEMENT OF COOPERATIVES IN CROP PRODUCTION  
IN TERMS OF VOLUMES OF OUTPUT

Year	Tons	
	Cotton	Wheat
1964-1965	32	1051
1965-1966	29	826
1966-1967	35	860
1967-1968	41	1371
1968-1969	30	1169
1969-1970	41.5	1236
1970-1971	42.5	823
1971-1972	50.8	2625
1972-1973	--	

Source: Second conference of Agricultural Cooperative, 1976, Baghdad, Iraq.

TABLE XVI

WHEAT PRODUCTION IN AWAYNAT AGRICULTURAL COOPERATIVE  
FOR THE YEAR 1974-1975

Sector	Return Avg. <sup>1</sup> Dinar/Donam	Avg. Yield of <sup>2</sup> Wheat kg/Donam
Cooperative	9.90	248.730
Non-cooperative	4.77	125,720

Source: The Second Annual Cooperative Meeting 6/30/76 to 7/4/76, pp. 25-29.

## Goals for Iraqi Agricultural Cooperatives

1. Economic Goals:
  - a. Utilizing farm resources more effectively.
  - b. Improving marketing practices.
  - c. Increasing farmers' income.
  - d. Protecting farm surpluses.
  - e. Creating jobs for elderly.
2. Social Goals:
  - a. Discouraging migration.
  - b. Improving incomes.
  - c. Rebirth of heritage and culture.
  - d. Utilizing excess time.
  - e. Improving cooperative spirit.
  - f. Gaining experience in human relations.
  - g. Improvement of citizenship.

To reach these goals, several rural industries and activities were designed and planned according to each area's need. These include the following:

1. Beautification of rural areas.
2. Maintaining farm equipment and machinery.
3. Helping each other in farmwork, voluntary work.
4. Working cooperatively in preventing soil erosion, flooding and salinization of soil.
5. Improvement of skills in farm practices and services.
6. Encouraging beneficial harmony among members in work related to agriculture or human services.

7. Utilizing excess farm products, for example, making cheese and yogurt from milk surplus.
8. Making carpets, wool baskets, belts, brooms, socks, blankets, from animal wool.
9. Making mats, baskets, dishes, vases from farm wool.

### Agricultural Cooperative Marketing

Agricultural marketing includes all the activities and services undertaken from the time a decision is made to produce agricultural products until that product is finally used in the same or different form, by the consumers, at the time and the place he wishes to purchase and the price he is willing to pay. (7)

Specifically, marketing performs the following functions:

1. Exchange functions
  - a. Buying assembly.
  - b. Selling.
2. Physical functions.
  - a. Storage.
  - b. Transportation.
  - c. Processing.
3. Facilitating functions.
  - a. Standardization.
  - b. Financing.
  - c. Risk bearing.
  - d. Market information.

The above functions must be performed, regardless of the type of economic organization of the marketing system. Further, the cost of performing the function must also be paid. In a free enterprise

system, firms or individuals, commonly called middlemen, perform most of the function and receive profits or losses for their activities.

One of the possible benefits of agricultural cooperative marketing is that the retained middleman's margin of profit (or loss) is the cooperatives' own members; improve standards of quality, encourage grading and packing by pooling resources. In general, the Agricultural Cooperative can bargain collectively on behalf of the members, due to the advantage of greater control on volumes of supplies, better information, better contacts; improves distribution between markets, being in touch with more markets of various types than the farmer and is able to choose the best; has better control over the flow of goods to market by means of cooperation between members and joint storage; expands market outlets; finances operations for members; and increases farmers' confidence. (29)

Agricultural cooperative marketing has been established in Iraq since the middle sixties. Its role before that time was very limited and did not achieve its goals due to the lack of organization, capital and experience. In 1964, eight new agricultural cooperatives were initiated in different developed areas. These cooperatives have marketed 110 tons of cotton and 224 tons of wheat in the first year. After 1964 the number of the cooperatives was increased and the volumes of products marketed increased significantly every year (Table XVII).

The government of Iraq is trying to make changes in the rural regions of the country by supporting the cooperative relationship in agricultural production followed by changes in the social system in the agricultural sector, based on its belief that the cooperative sector plays the major role in production. The marketing of most agricultural



TABLE XVII

## AGRICULTURAL COOPERATIVE MARKETING DEVELOPMENT

Year	Cotton		Wheat		Rice		Dates		Barley		Wool	
	Ton	Coop.	Ton	Coop.	Ton	Coop.	Ton	Coop.	Ton	Coop.	Ton	Coop.
1964-65	110	8	224	8	--	--	162	--	--	--	--	--
1965-66	81	6	478	16	19	1	162	1	--	--	--	--
1966-67	250	14	655	7	225	4	224	2	147	10	--	--
1967-68	274	13	2026	79	1358	8	306	3	185	15	--	--
1968-69	1077	26	2359	70	3856	30	2180	14	12000	79	6	3

Source: Tabrah, K.A., "Development and Increase of Cooperative Finance and Its Relation with Cooperative Marketing," 2nd Conference of Agric. Cooperative, Baghdad, Iraq, 1976, p. 44.

crops has been connected to the agricultural cooperatives since 1969, and the government marketing establishment gave some privileges to the cooperative members by providing loans without interest and special considerations during the receiving and paying processes.

Due to the importance of the cooperative sections, they were represented in the Higher Committee of Agricultural Marketing (which was headed by the Ministry of Agriculture and Agrarian Reform). Its main duties are to organize agricultural cooperative marketing and to fix the prices of the agricultural crops. Table XVIII shows the development of cooperative marketing in terms of volumes handled between 1969 to 1974.

The marketing development does not include all the agricultural crops which are highly perishable. The marketing establishments try to furnish the cooperative members with means of packaging and loans to enable them to collect their crops and market them. Lately a new agricultural marketing cooperative was established in the northern part of Iraq (D'hok) to market apples.

#### Factors Which Influence Cooperative Marketing

Production pricing and agricultural policy. Agricultural production depends on the needs of the manufacturing, exporting and consuming sectors of the economy. Therefore, the agricultural policy should consider many factors which affect the above sectors, in addition to securing a reasonable return to the agricultural producers. These considerations will influence the agricultural cooperative marketing through: Production Expectations--It is important to know the expected volume to develop adequate marketing policy. Agricultural

TABLE XVIII

DEVELOPMENT OF AGRICULTURAL COOPERATIVE MARKETING BETWEEN  
1969-1974 IN VOLUMES HANDLED

	Year				
	1969/70	1970/71	1971/72	1972/73	1973/74
Cotton	11357	12043	16739	17500	14268
Wool	65	120	130	410	2200
Linseeds	795	467	292	214	152
Wheat	6219	3997	132939	352589	6110
Barley	1745	1074	25034	31909	33848
Rice	3758	6121	15365	67000	44586
Tobacco	292	308	174	--	--
Sesame	150	54	200	110	--
Yellow Corn	1219	2888	5141	7330	4920
Onion	589	1541	79	--	--
Dates	2267	3968	6536	40412	44807
Sunflower	--	30	--	1133	4
Saffron	--	--	--	320	248
Milk	1033	1153	1693	3022	2772
Number of Market- ing Cooperatives	458	567	1469	1528	unv.
Value of Marketing Crops I.D.	737061	1642779	NA <sup>a/</sup>	1982839	158640
Marketing Loans (I.D.)	435229	48662	503594	--	--

Source: Statistics of the Directorate General of Cooperative and Agricultural Production, 1976, p. 24.

<sup>a/</sup>Not available.

production in Iraq is still unstable in spite of all the plans that have been proposed to stabilize it. Further, there is still a great difference between production and quantities marketed because of lags in shipping patterns and spoilages of the agricultural products in transit.

#### PRICE STABILIZATION

The intention of the authorities involved with cooperatives is to stabilize prices to cooperatives in an attempt to assure an adequate supply of food and fiber to consumers at reasonable prices. If, however, the prices fluctuate over wide ranges, the farmers may not be willing to produce at the necessary level. On the other hand, if prices are fixed too high, consumer demand will not be sufficient to clear the market.

In order to stabilize prices for the products produced by cooperatives, the following factors must be considered.

1. Prices should guide efficient allocation of resources in order to maximize returns to the producer.
2. Prices should reflect the consumer's ability to pay for the goods and services.
3. Prices should be stable enough to encourage a reasonable rate of economic growth.

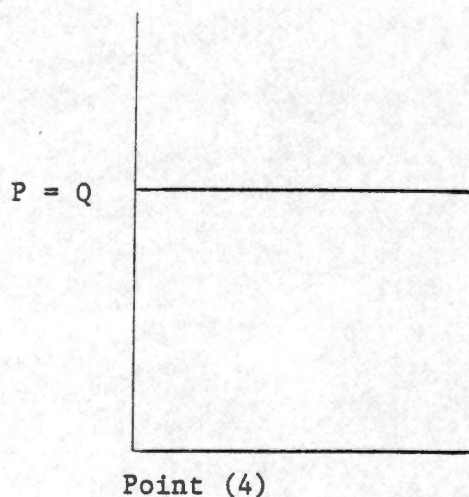
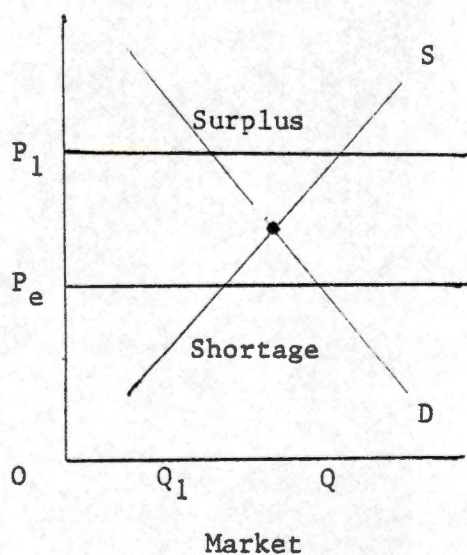
To stabilize prices, the following measures must be taken:

1. Regulating the supply of money, taxation, control on banking services.
2. Price control of commodities, rationing and other distributive activities.

3. Price support measures to raise commodity prices to specified levels.
4. Export and import measures to control the prices and movements of farm products.

In fixing the seasonal prices of the products, the authorities have to consider both the cost of production and the level of the price to consumer. If, however, the cost of production increased, the increment in prices has to be consistent with the level helping producer to be in production and consumer to purchase the produce.

This procedure should be followed in each season taken into consideration the cost of production. The price, however, should be fixed according to season, cost of production in that season and consumer purchasing power.



Reasons for establishing price controls:

1. To control the inflationary spiral.
2. To protect small farmers from the monopsonistic powers.

3. To encourage the production of specific products by guaranteeing that crops will have a definite market price to cover costs of production.

The government establishes price goals using the following considerations:

1. The demand and supply relationships for the product in question are estimated.
2. The use of storage stocks to stabilize prices in terms of returns to producers that will cover production costs and prices that are fair to consumers.
3. Use of supplies from foreign sources when local production is insufficient to meet consumption needs during a specific marketing period.

#### Annual Variations

Crop production fluctuates from year to year due to changes in acreage and yields. Changes in prices during the preceding year tend to change the area under crops. However, weather is the major determinant of production as acreage adjustment tends to be relatively small on a year to year basis. Figure III shows the annual variations in prices of tomatoes in the Baghdad market. During the winter months the prices are the highest when there is very little supply.

#### The Production of Product Output

The output is determined by previously planned programs. The programs are designed ahead of time to take in consideration the resources each farmer in the planning unit.

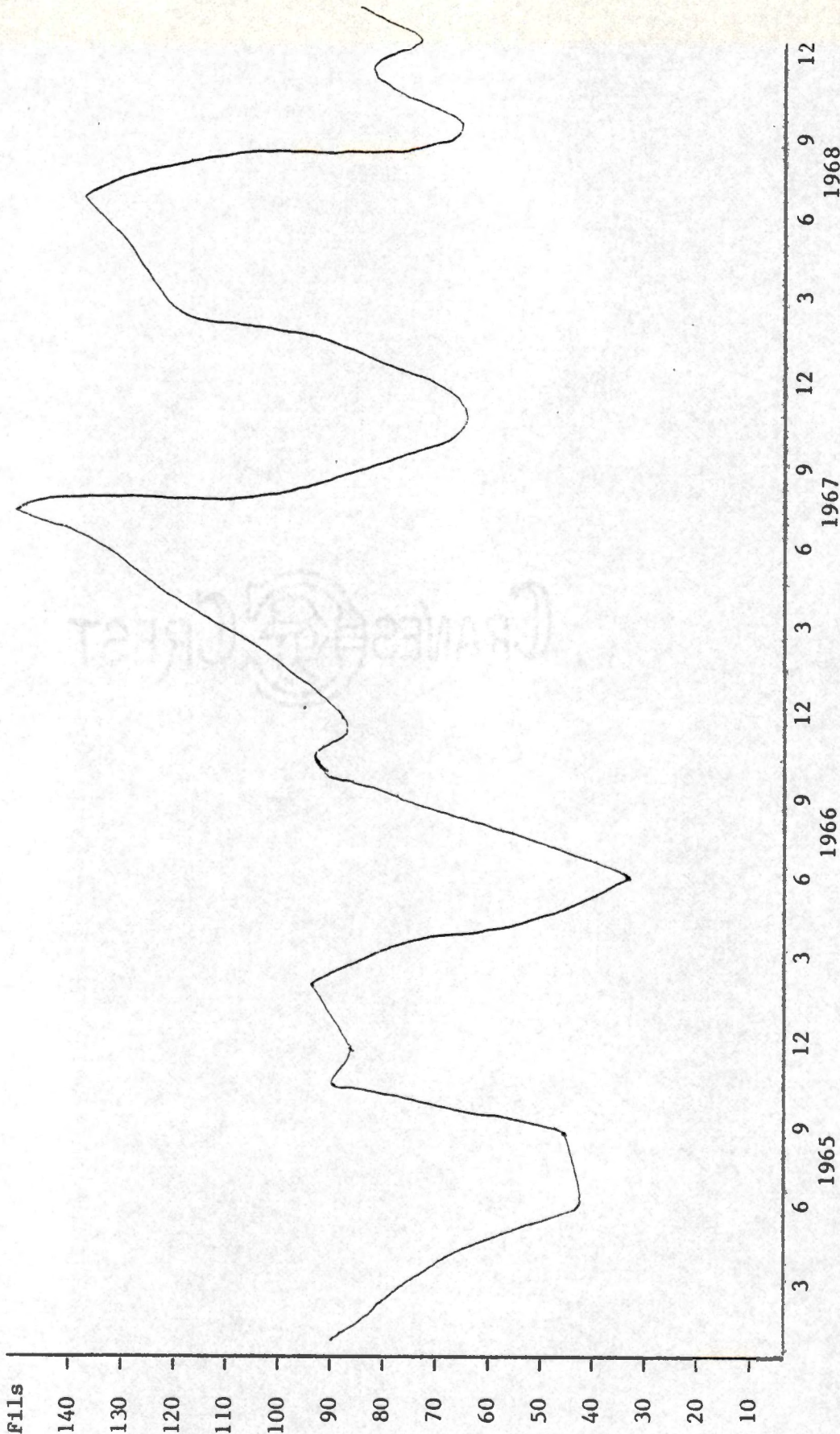


FIGURE III

TOMATO PRICE ANNUAL VARIATIONS, BAGHDAD

For cooperatives, the projection of production is determined by the activities of the farmers involved.

#### The Estimation of Production Costs

Production costs depend in part on numbers of farmers involved in the production operation. As the number of farmers in the cooperative increases, the volume of production increases and costs of production tend to decrease. However, other factors should be considered.

Prices. Cooperative marketing may be used to regulate and stabilize the prices of products. Production cost should be considered and reasonable returns should be secured for cooperative members. One must also consider the prices necessary to move the product so as not to develop gluts or deficits. There is a variation now between the announced prices and the production costs. This will necessitate fixing the prices in light of production costs.

Size of production unit. The cost of marketing depends in part on the volume of products marketed. Production costs are also affected by the volumes of products marketed. A higher production level tends to decrease production costs.

Production homogeneity. It is very important to standardize the same quality of agricultural crops so as to facilitate the marketing processes. Producing different qualities of the same crop creates an extra effort in facilitating production.



### Marketing Framework

The development of the agricultural cooperative marketing depends on the efficiency of the people who regulate and monitor its processes. This will require flexibility in providing financial and manpower resources whenever it is needed. There are many government marketing establishments and they differ according to the crops marketed. This will tend to reduce marketing efficiency due to the following reasons:

1. Coordination--Due to the enlarged number of governmental establishments and the variation of the production of crops, it was observed that coordination is difficult to achieve in the marketing processes. There is a lack of a principal marketing system which could regulate agricultural marketing and draw its policy in order to supply all the facilities at the required time.
2. Collection and collection centers--The marketing process starts with collecting the crops from the producers in the production centers. The lack of collection centers now leads the established marketing centers to receive the crops. These centers have insufficient capacities to store large crops during the rush seasons. In addition to the delay caused by receiving crops during the marketing seasons, it is important to establish large centers which are provided with sufficient storage facilities to minimize the delay and store the expected quantities of production. Facilities should be provided to perform some necessary laboratory tests in order to maintain the required standards.

3. Personnel--Marketing efficiency, in large part, depends on the efficiency, training and general competence of the personnel. There is a shortage of personnel in the existing marketing agencies, and so the requirements of current agricultural marketing operations are not fulfilled.
4. Storage--The availability of storage is considered to be one of the factors which influence the marketing processes. Its existence at the production sites helps to facilitate the preliminary collection of products and regulates their distribution uniformly to the market at the needed time.
5. Transportation--Obviously, transportation is one of the most important parts of the marketing process. The control, monitoring and use of the means of transportation helps regulate the marketing directly and minimize costs.

#### Marketing Procedures

Whenever the number of parties in the marketing processes increases, the process of coordination will be further complicated resulting in higher costs. Therefore, it is necessary to include the participating cooperatives as a part of the marketing process. It will be involved as a buyer from the local cooperatives and its members and will transport the product to its destination after the commodity has been processed into its preferred form and has met the required standards.

A possible marketing system that could be used as a strategic step in securing a better social and economic level for Iraqi rural regions is shown in Figure IV.

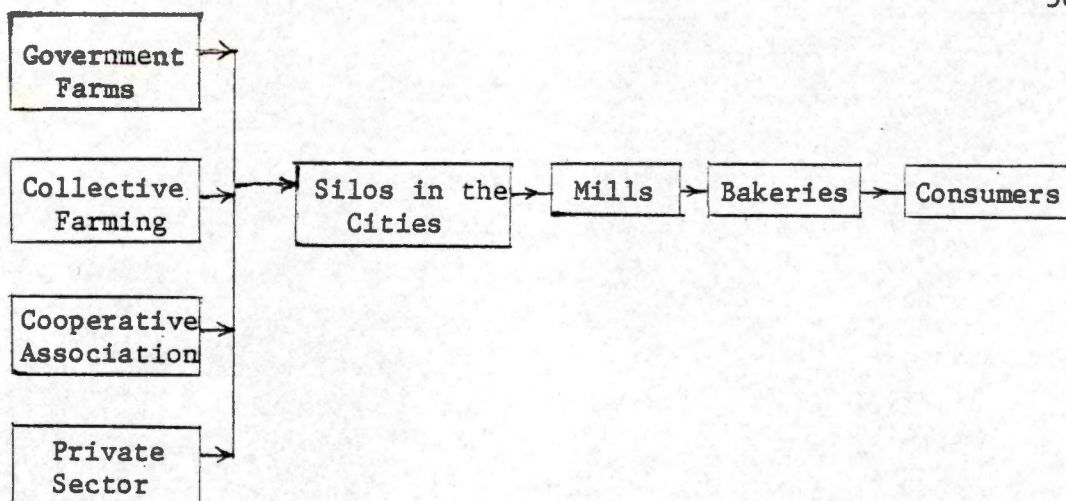


FIGURE IV

## MARKETING OF WHEAT, BARLEY AND RICE

This is in comparison to the situation shown in Figure V.

From Figures VI and VII, it was concluded that the marketing system represented in Figure VI is considered to be the best system for the following reasons:

1. Fewer middlemen.
2. Lower costs.
3. Fewer marketing channels and create collective marketing centers.
4. Facilitates governmental control over marketing.
5. Facilitates marketing services.
6. Makes marketing planning and programming easy.

Figures VI and VII show difficulties in coordinating in the marketing process between public production, collective cooperatives and private sectors. It also includes many agents and marketing cycles which might apparently increase marketing costs and complicate its

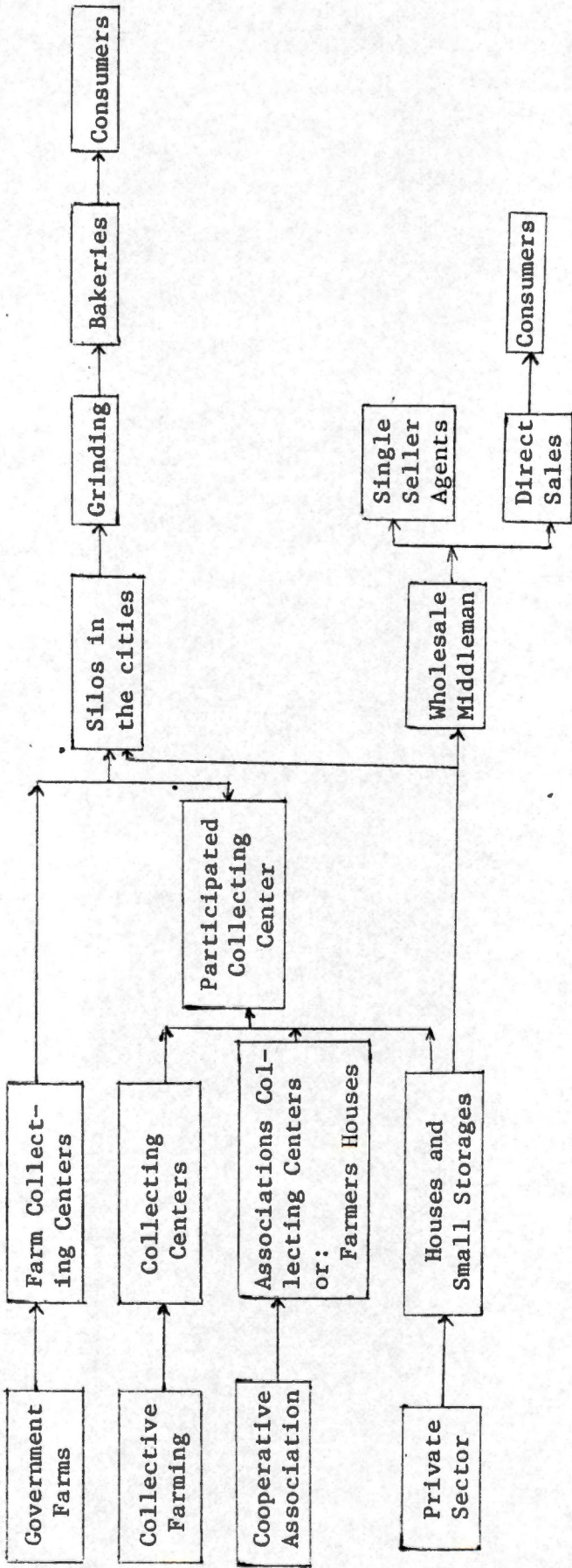


FIGURE V

CHANNELS INVOLVED IN MARKETING THE PRODUCTS WHICH INCREASES THE COST OF PRODUCTION

The next two figures show the current situation for products other than grains.

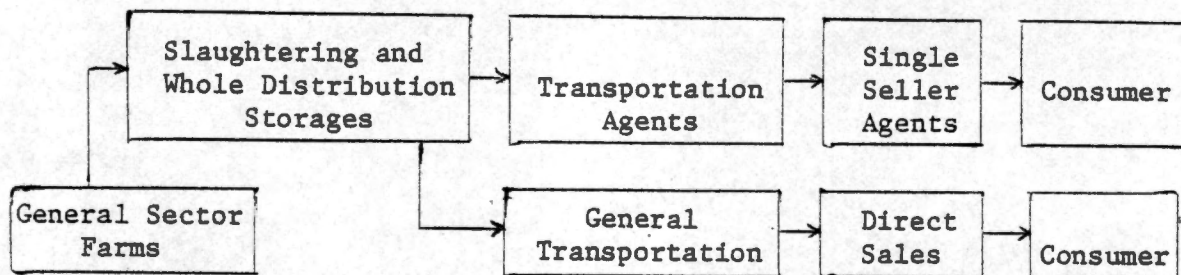


FIGURE VI

MARKETING THE GENERAL SECTOR'S PRODUCTION (EXCLUDING GRAINS)

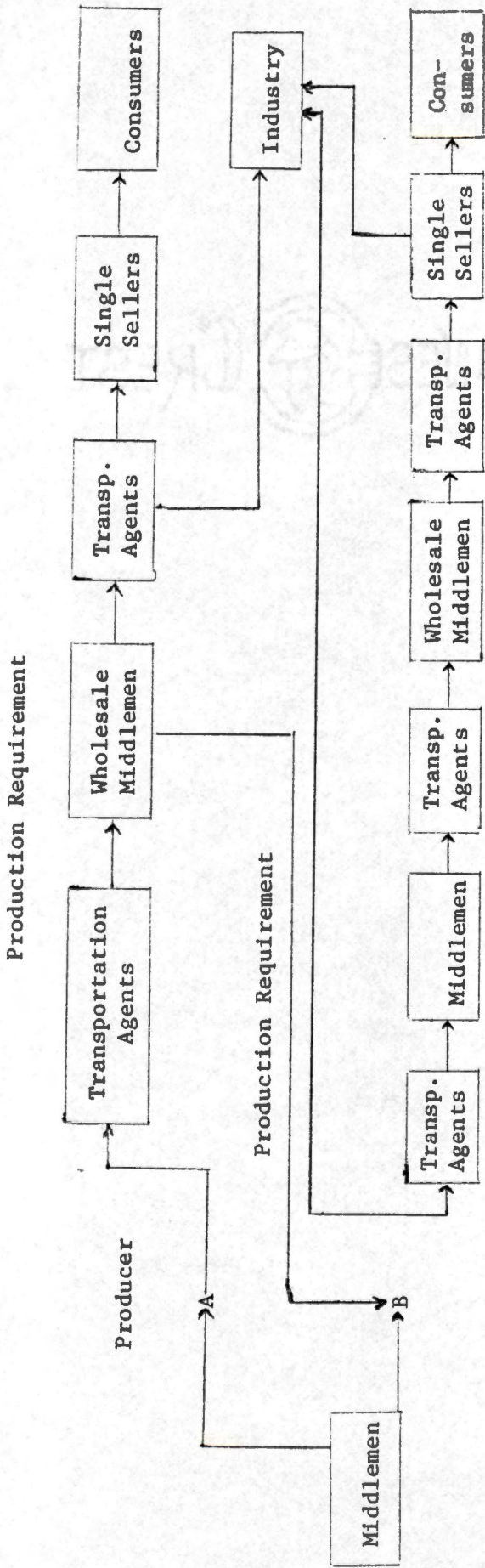


FIGURE VII  
 MARKETING OF COLLECTIVE, COOPERATIVE, AND SPECIAL FARMS PRODUCTION (EXCLUDING GRAINS)

control. Moreover, there is need for more marketing services, such as grading, classification and storing (in addition to transportation). The increase in marketing cycles will also make difficult the coordination between the agricultural and industrial sectors.

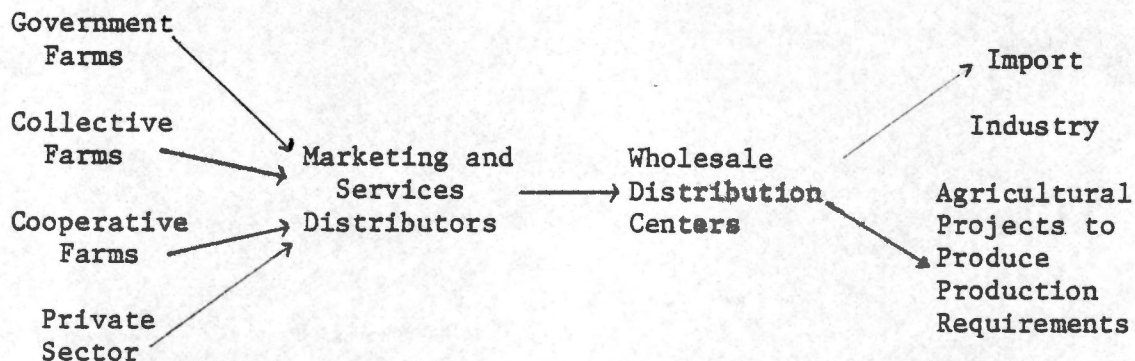
The government is trying to minimize the marketing cycles so as to provide better services for the producers. A plan developed that would open many receiving centers and service centers. But it is still necessary to come up with a unified marketing plan as a basis for taking care of all the economic and social considerations. The new plan necessitates the coordination of receiving centers and service centers with the various offices of the agricultural sectors by constructing collective centers for services and marketing in various production regions.

A better organization for the collective centers in the production areas will connect it with the economic and commercial centers in the rural regions. Farm producers could easily sell their products (even if its quantity is small) in their locations instead of leaving their farms to sell their products in the city. Another advantage of the collective centers is to provide direct marketing to the industrial sector and the grain silos and to the distribution centers in the cities for vegetables, fruits and other products which have the functions of distributing the products to the local selling agents.

The whole distribution centers in the cities are provided with many facilities to preserve and maintain the products. They also provide facilities for freezing, classification, drying, squeezing, storage and so forth.

The framework for organizing agricultural marketing will take the following form: (12)

A. Movement of Agricultural Output



B. Movement of Farm Input Items

The previous frameworks will result in:

1. Reducing the role of middlemen in the rural regions, thus minimizing marketing costs.
2. Collecting all the agricultural sector's investments into one channel and directing them to create new enterprises to help to provide marketing services to the producers at their production sites.
3. Better control of price fluctuation and production planning.
4. Minimizing the losses from damaged and spoiled products during the handling processes (losses have been estimated to be as high as 60 to 80 million dollars annually).
5. Assisting service divisions which are available in the centers, such as crop protection, agrarian reform, artificial insemination, veterinary services, and the like.



### Financing

Before 1956, it was extremely difficult for farmers to join the cooperative due to a lack of capital. In 1956, the Agriculture Bank was established and started operations during the last quarter of the same year.

The main objectives of this bank were as follows: (13)

1. To stimulate the establishment of cooperatives.
2. To help the established cooperatives to engage in other phases of production.
3. To help cooperatives in marketing their products and to acquire modern technology in production, storage, maintenance and other needed services of modern agriculture. Due to the lack of sufficient funds, the borrowing was restricted to the minimum. After 1968, the amount of loans to cooperatives was increased so as to enable more cooperatives to be established and to help those which were already operating.

Tables XIX and XX show the total loans which have been procured from the Agriculture Bank. (13) In addition to the Agriculture Bank loans, the cooperatives obtain loans in the form of pesticides, insecticides, herbicides and certified seeds from the Directorate General of Agricultural Extension. The General Company of Agricultural Production also provided the cooperatives with loans. It is estimated that 2,091 tons of potato seeds were loaned in 1975 and 3,875 tons in 1976. Other forms of loans were available to cooperatives from the following governmental establishments (Table XXI): (1) Yellow corn project, (2) Date Marketing Agency, (3) Textile company, (4) General Sugar Company of Mosul, (5) Vegetable and Fruits Agency, (6) General

TABLE XIX

## AMOUNTS OF LOANS PAID BY THE AGRICULTURAL BANK TO THE AGRICULTURAL COOPERATIVES (I.D.)

Cooperative Year	Agric. Supply	Agric. Machines and Implements	Cooperative Marketing	Animal Wealth	Agric. Services	Other Purposes	Land and Orchard Reclamation	General Total
1965-66	42353	48210	6125	--	--	--	--	96688
1966-67	85970	16325	10822	7002	--	5000	--	125119
1967-68	195740	4300	60975	2000	--	750	--	262775
1968-69	170801	18125	115730	85272	21622	1115	--	412665
1969-70	1138955	151389	354462	222459	125731	33526	--	2026522
1970-71	967987	278100	344361	52437	136303	18639	--	1797827
1971-72	832717	517425	349464	299656	153439	46151	--	2198852
1972-73	1055853	617066	316478	492419	129349	173257	--	2784422
1973-74	1141618	670521	118774	717696	85843	10480	160424	2905356
1974-75	1586425	3076337	135966	921749	32026	9850	157927	5920280

Source: Directorate General of Agricultural Cooperatives, 1975.

TABLE XX

## TOTAL LOANS BORROWED FROM THE AGRICULTURE BANK IN FORM OF CASH

Year	Sum of Loans in ID	Percentage of Cooperative Loans to The National Loans
1964-65	18086	1
1965-66	92452	10
1966-1967	124475	10
1967-1968	246254	15
1968-1969	315577	16
1969-1970	737852	38
1970-1971	1736337	58
1971-1972	2127158	68
1972-1973	2622240	67
1973-1974	4722717	77
1974-1975	3708006	74

Source: Second Conference of Agriculture Cooperatives given by the Agricultural Bank - Research and Statistics Division, Baghdad, Iraq, 1976.

TABLE XXI

## AGRICULTURAL COOPERATIVE LOANS BORROWED FROM THE AGRICULTURE BANK AND OTHER SOURCES

Year	Ag. Supl.	Mach.	Main.	Coop. Market- ing	Animals Wealth	Services for Harvester Machine, Irrigation & Collec- tors	Land Reform (Orchards)	Misc.	Total	No. of Bene- fitted Coop.	Other <sup>1</sup> Loans
1964-65	18332	34042							52374	54	
1965-66	42353	48210		125					96688	115	
1966-67	85970	16325		10822	7002		5000	150	125119	166	
1967-68	194081	4300		62444	2000			1100	262775	232	
1968-69	170801	18152		137252	85272				412733	280	
1969-70	270058	107553	9848	435123	214235		13323		1150240	440	
1970-71	967987	252768	25332	480663	52437		18639		1797826	614	
1971-72	836217	438876	71759	502594	305836	4269	40801	1000	2202352	551	4090827
1972-73	1055852	817066	63360	445827	492419		60970	3500	2784421	655	2487000
1973-74	1287132	704333	46374	216701	1335964	56256	195870	9000	3851230	753	

<sup>1</sup> Other loans from grain company and wool company and date company.

Source: Second Conference of Agricultural Cooperative, Baghdad, Iraq, 1976.

directorates of machinery. In addition to loans from the Agriculture Bank, the cooperatives utilize their own savings to finance agriculture production.

#### Marketing and Financing Problems and Proposed Solutions

There are problems facing cooperatives in marketing and financing. These problems can be summarized as follows:

1. Shortage of storage.
2. Shortage of transportation.
3. Competition from sectors other than cooperatives.
4. Lack of awareness of the importance of marketing and financing practices.
5. Few qualified personnel in the areas of marketing and financing.
6. A majority of farmers are indebted due to the following factors:
  - a. Adverse climatic condition or natural disasters.
  - b. Low production.
  - c. Mismanagement of finance.
  - d. Lack of financial programs or lack of planning.
  - e. Lack of financial supervision.
  - f. Easy accessibility of low interest loans to cooperatives.

#### Proposed Solutions

1. Providing cooperatives with all the necessary services needed for marketing.
2. Appointment of qualified personnel in the area of marketing and financing.

3. Helping farmers understand and practice budgeting.
4. Helping farmers plan and program projects before applying for loans. (12)
5. Helping farmers in cases of low production caused by factors other than mismanagement by the farmers themselves.
6. Engaging farmers in intensive extension and education programs related to marketing and financing.
7. Encouraging cooperative members who repay debts so that they will be able to borrow new loans if needed. (24)
8. Presenting farm products in a very attractive way quantitatively and qualitatively.
9. Preventing farmers from over borrowing from the Agriculture Bank.
10. Preventing farmers from borrowing from sources other than the Agriculture Bank.
11. Coordinating financing and marketing.
12. Discouraging farmers from borrowing from or selling to middlemen (13) or traders.
13. Finding new channels for marketing the products.
14. Having farmers evaluate their marketing and financing programs at the end of each season.
15. Using prizes as incentives for the best marketing and financing condition.

It will be extremely difficult to present here in the programs or the plans with regard to the above mentioned recommendations that set for the improvement of cooperatives in Iraq because of the following reasons:

1. The unavailability of references.
2. The involvement of many areas of interest to cooperation.
3. Few years of experiences on my part, in the field of finance, marketing, extension or other related services in the field of cooperation.

But, from these few years of experience in cooperation, I would be able to suggest limited numbers of plans for the improvement of cooperative performance.

Non-cash credit could be the solution to some financial problems. Instead of given cash, the farmers should receive seeds, chemicals, animals, machinery and the like. This way, the farmers will be able to manage this kind of credit provided that they are put under governmental supervision.

In marketing, the government should build silos or storages according to the area's need. For example, in 1973, wheat production was very high, but substantial parts of it went to waste due to the unavailability of storage.

In order for the authorities to follow the proposed recommendation, detailed social and economic studies must be conducted. In addition, reevaluation of the entire cooperative system must be done now. By the reevaluation, the government will be able to set future plans accordingly.

The reevaluation, however, should be conducted by specialized personnel, each according to his field of expertise.

Agricultural supplies. According to cooperative principles set up by the Iraqi government, all possible means and effort should be

made to encourage farmers to improve themselves through agriculture. One of these means is agricultural supplies. In 1975 the Iraqi government supplied cooperatives all over the country with agriculture supplies as illustrated in Tables XXII and XXIII. (30)

In order to distribute the agricultural supplies to cooperatives, participating cooperatives were formed from two or more nearby cooperatives. The responsibilities of these newly formed cooperatives

TABLE XXII

## AGRICULTURAL SUPPLIES GIVEN TO COOPERATIVES

Supplies	Tons	
	Summer Season 1974-1975	Winter Season 1975-1976
Chemical	13,072,975	13,072,975
Eyes of potato (Spring)	3,268	--
Eyes of potato (Fall)	4,916,910	--
Cotton	1,526,340	--
Sunflower Seeds	36,575	--
Watermelon Seeds	1,899	--
Cucumber Seeds	785	--
Cantalope Seeds	896	--
Okra Seeds	51,880	--
Eggplant Seeds	0.38	--
Vegetable Seeds	7,042	--
Horsebeans	--	67,828
Wheat	--	3,908,100
Alfalfa Seeds	--	2,414
Roughage Seeds	--	2,700
Yellow Corn	9,875	--
Tomato Seeds	1,100	--

Source: Saied, H.M., "The Organization, Provide Supplementation and Agricultural Requirements for Agricultural Cooperatives," The Second Annual Agricultural Cooperative Meeting, 6/30/76-7/4/76.



TABLE XXIII

## LOANS GIVEN BY THE AGRICULTURAL COOPERATIVE BANK TO THE AGRICULTURAL COOPERATIVES

Years	Amount Due		Amount Received		Postponed Amount		Outstanding Amount		Percentage Received	Amounts Accumulated From Postponed And Outstanding		Amounts Paid From Accumulated		Outstanding Amount From Accumulated	
	I.D.	Files	I.D.	Files	I.D.	Files	I.D.	Files		I.D.	Files	I.D.	Files	I.D.	Files
1965/66	18012		17818				1194		99%	194		194		--	--
1966/67	66280		64005		420		1855		91%	2275		2275		--	--
1967/68	20796		97803		12553		10441		81%	22993		22993		--	--
1968/69	271748		232341		12651		26757		85%	39408		37964		1444	--
1969/70	358132		291026		27795		39311		81%	67106		62105		5001	--
1970/71	836198		598415		90807		146976		72%	237783		215408		3089	--
1971/72	1479510		735593		373383		370534		50%	743917		675874		92320	--
1972/73	1221781		752890		87776		381164		62%	468940		385453		83487	--
1973/74	1842923		962002		246925		633996		52%	880921		715484		13696	--
1974/75	2523819		1711485		160522		651812		69%	812334		438485		525597	--

Source: The Second Annual Agricultural Cooperative Meeting 6/30/76-7/4/76, p. 3.

transportation and distribution. To the present date, there are 181 participating cooperatives involved in almost all forms of farm services.

Obtaining agricultural supplies is a difficult task. There are several obstacles hindering farmers from obtaining or utilizing agriculture supplies; the problems are: (1) Few adequate storage areas, (2) Shortage of qualified managers, (3) Shortage of transportation, (4) Denial of credits from the Agricultural Bank in some cases.

### Summary

Agricultural cooperatives are engaged in the various phases of agriculture and production, such as animal and plant production, utilizing farm resources and industries. Because of the governmental financial and non-financial support, cooperatives are able recently to move progressively forward. However, problems and obstacles are in evidence. In order for cooperatives to be able to improve production quantity and quality, planning and support must be continued. Thus, the attention of the authorities involved must be focused on both the economical and social problems. In addition, studying and reevaluation of the present plans and programs that are dealing with production must be done seasonally if not annually. Continued studying and reevaluation help in assuring economical, as well as social benefits directly to cooperatives and indirectly to the country as a whole.

## ECONOMIC MODEL FOR SILOS AND STORAGES NUMBERS, SIZE AND LOCATION

It is important to organize the plant efficiently with respect to the procurement of raw material and the distribution of finished goods. Solving the problems which are related to the silos and storage numbers, size and location are important in order to maximize profits and to help to spend the investment wisely.

The objective of the economic model to optimize the size, number and location of the silos and storages it to minimize the combined transportation and storage costs involved in handling of any given quantity of raw material produced in varying quantities at scattered production points. The model contains the inclusion of facility numbers and locations as distinguishing features and the reflection of economies of scale in plant cost.

The objective function, which in essence is an extension of the basic linear programming transportation model, minimizes the total cost involved in determining the number, size and location of facilities, as follows:

Minimize:

$$\text{Total Cost} = \text{Total Storage Cost (31)}$$

+ Total transfer cost with specified number of plants located in a specified pattern

Or minimize:

$$\begin{array}{l} \text{Total Storage} \\ \text{and Assembly} \\ \text{Cost} \end{array} = \begin{array}{l} \text{Unit} \\ \text{Storage X} \\ \text{Cost} \end{array} \begin{array}{l} \text{Quantity} \\ \text{of} \\ \text{Material} \\ \text{Stored} \end{array} + \begin{array}{l} \text{Quantity of} \\ \text{Raw Material X} \\ \text{Shipped from} \\ \text{i to j} \end{array} \begin{array}{l} \text{Unit Cost} \\ \text{of Shipping} \end{array}$$

Algebraically, it is shown as follows:

$$TC(j, L_K) = \sum_{j=1}^J P_j X_j L_K + \sum_{i=1}^I \sum_{j=1}^J X_{ij} C_{ij} L_K$$

Where: TC = Total storage and assembly cost.

$X_i$  = Product quantity of a material to be stored.

J = Facility number.

L = Possible locations facility.

$P_j$  = Unit storage cost in facility j where ( $j = 1, \dots, J < L$ ) located at  $L_j$ .

$X_{ij}$  = Quantity of raw materials from the farm  $i$  to the facility j located at  $L_j$ .

$L_j$  = A specific location for an individual facility ( $j=1, \dots, J$ )

$C_{ij}$  = Unit cost of shipping product from the farm  $i$  to the facility j located with respect to  $L_j$ ).

$L_K$  = One locational pattern for J facilities among the total possible combinations of locations for J plants given L possible locations ( $\binom{L}{J}$ ).

The facility numbers (J) which are less than or equal to all possible locations (L), and locational pattern  $L_K$  (which ranges from  $1, \dots, \binom{L}{K}$ ) are subjected to:

1.  $\sum_{j=1}^J X_{ij} = X_i =$  quantity of product available at the farm per production period.

2.  $\sum_{i=1}^I X_{ij} = x_{ij} =$  quantity of product stored at facility per production period.

$$3. \sum_{i=1}^I \sum_{j=1}^J X_{ij} = X = \text{total quantity of product produced and processed.}$$

$$4. X_{ij} \geq 0.$$

$$5. X_i \geq 0.$$

$$6. C_{ij} \geq 0.$$

The economies of scale in facility operations and the way in which facility costs are influenced by facility location are two approaches which should be known in order to minimize the objective function properly with respect to facility (silos, storages) numbers and locations. The procedure which optimizes the objective functions will fall into four categories. The diagram below shows the type of relation between plant cost location with the existence of economies of scale in facility operation.

Facility Cost and Location

Economies  
of scale in  
operation  
facility

No economies  
of scale in  
operation  
facility

Independent	Varies
Independent	Dependent

To apply the above model, four categories of data are required, which include:

1. Estimation or actual amount of crops production to be assembled from each point of farm.

2. A transportation-cost table which shows the cost of transporting a unit of product from the farm to the destined facility.
3. A facility-cost function(s) which determines the cost of processing any quantity of products in a varying number of facilities.
4. Specification of potential storage locations.

CRANES & CREST

## CHAPTER IV

### SUMMARY AND RECOMMENDATIONS

The needs for economic and social changes were recognized by the government before 1958. But because of feudalistic landowners supported the government, most reforms were delayed or ignored. Several reasons were given such as lack of finance, lack of technology and social drive. In addition, the farmers themselves were kept under poverty, illiteracy and lacked confidence in themselves. Tribal classes and superstition were forces which kept farmers out of the changing world. Agricultural production was low. There was no diversification of production. The concentration on cereal grains was due to the demand for grains in foreign markets. During this period, there were individual attempts to form cooperatives, but the attempts failed because of lack of experience, lack of finances and lack of spirit of cooperation. During the period of 1944-1958, there were 22 agricultural cooperatives. The growth, however, was slow and most of the established cooperatives were around Baghdad.

Shortly before 1958, the need for cooperatives again came to light and many people accepted the idea. In addition, the government realized that for one reason or another, cooperatives could be a means of liberation for the people. Thus, the government supported cooperatives through its bank, the Agriculture Bank (Table XIII, page 40).

After 1958, a new government came to power and recognized the importance of cooperatives in economic and social development. The announcement of the Agrarian Reform Law in 1958 stated the government's

intentions of eliminating feudalism and of bringing social justice to the farmers. This law limited a landlord's areas of land and distributed the rest to farmers, but the distribution was slow and as a result, a great deal of land remained unused under the jurisdiction of the Ministry of Agrarian Reform. This situation had adverse effects upon agricultural production. At the same time, the demand for agricultural products increased in cities because of migration from the country and shortages of food appeared in the markets, while farmers remained unemployed.

This situation gradually improved and the need for more cooperatives as a means of increasing agriculture production increased. By 1969, the numbers of cooperatives reached 584. The government moved in and fully supported agricultural cooperatives through all possible means such as borrowing supervision, allocation of land, renting machinery, extension and education programs, and planning. As a result of this intensive effort, the number of cooperatives increased tremendously and animal and plant production increased (Tables II and XIII). In addition different forms of cooperatives were established in an effort to increase agricultural production. In 1969 collective farming was established. By 1970 there were 13 collective farms and the number increased thereafter (Table XVIII, page 48).

Why government support, and why such intensified effort? It is true that cooperatives are to be used as means of bringing social and economic change. But the main reasons for the government support is to have agricultural products available in the market for a growing population.



Agricultural production dropped substantially after 1958, and the country's imports increased. The drop in production was attributed to the following factors:

1. Large areas of land remain uncultivated.
2. Misuse of agricultural land.
3. The adverse change in the climate.
4. Withholding of water from Euphrates River by the Syrian authorities.
5. The influence of the Northern War with Separatists.
6. The influence of mobilization of young men from both rural areas and cities, for military preparation during the 1973 war with Zionists in the occupied Palestine state.
7. The migration of farmers to cities.
8. Lack of know-how in certain phases of agriculture.

Since cooperative performance is improving over that of the non-cooperative sectors, the government came to the conclusion that agricultural cooperatives are the centers through which economic and social changes take place. Thus, economic and social programs are in effect through agriculture. Supervision and evaluation are in progress. The fact remains that the outcome of cooperatives' performance is still behind the goals set for it. The factors recognized are as follows:

1. The development of the human resources. In order to cope with problems related to agriculture, cooperative members must be mentally and physically capable. Among cooperative farmers where illiteracy is high, this takes time. Ignoring this factor means slow progress. That is why the Revolutionary

Government recently intensified its effort of reducing illiteracy, so that it will be capable of introducing agricultural instruction at a later time.

2. In addition, the tribal customs and traditions, and the influences of feudalism are still in existence despite all the efforts to eliminate them. As a result, the cooperative movement met some degree of resistance.
3. In general, cooperatives have their own social problems. Tribal disputes, family disputes, and individualism play important roles in hindering progress.
4. The lack of cooperative spirit makes it difficult to absorb new ideas. To some cooperative farmers, "the old is always good because it is easy."
5. Many cooperative leaders are unable to meet their promises to the members and as a result members give up, becoming less dedicated and less cooperative.
6. Some members are still in contact with merchants, middlemen, and other members of businesses dealing with farm products.
7. Lack of cooperative responsibilities among some of the appointed personnel.
8. Transportation problems, such as availability, maintenance and operation. All of these problems become important factors in reducing the efficiency of production and marketing.
9. Shortage of qualified administrative personnel.

10. The use of "red tape" in conducting cooperative businesses and services.
11. The mismanagement of large areas of land has resulted in either salty or weak soils.
12. There is still a lack of coordination between cooperative and noncooperative authorities.
13. Problems of financing, of marketing and of machinery.
14. The weakness of supervision and evaluation.
15. The weakness of extension and education programs directed toward cooperatives.
16. Lack of cooperative research in the educational institutes.
17. With regard to collective farming, the problems recognized are as follows: (a) lack of collective spirit among members, (b) lack of confidence in this form of farming among members.

#### RECOMMENDATION

In order for cooperatives to achieve their goals, the following recommendations must be adapted:

1. Abolishing illiteracy through: (a) adult education, (b) compulsory education for the young generation.
2. Reducing the impact of social problems on cooperative performance.
3. Improve cooperative leadership.
4. Continuous training of cooperative and governmental personnel through intensive educational and extension programs.

5. Encouraging cooperatives to participate in social functions that benefit all.
6. Improving lands and increasing cultivation.
7. Applying modern technology in the production of crops and livestock.
8. Helping solve the farmers' indebtedness problems.
9. Utilizing trained specialists.
10. Aiming at members' basic needs and interests.
11. Planning and programming that coincides with understanding of the culture.
12. Using democratic methods.
13. Continuous evaluation of the performance of cooperatives.
14. Increasing financial support for better production.
15. Providing services such as storage, transporting and marketing of cooperative products.
16. Increasing the number of machines, storage facilities and other facilities needed for high agricultural production.
17. Preventing the contact between cooperatives, on the one hand, and traders and landlords on the other, in acquiring loans and in the sale of products.

#### CONCLUSIONS

Agriculture cooperatives in Iraq are multipurpose and are fully supported and directed by the government because local conditions favor this type of cooperation.

Before 1968, the growth of agricultural cooperatives was somewhat slow. But after 1968, the growth was accelerated for two main reasons:

CRANES ST. CREST

(1) The increasing demand for agricultural products, (2) The necessity for social and economic changes in the rural areas.

However, much more needs to be done to make sure that Iraqi agriculture makes its full potential contribution to the nation's development and the well-being of all Iraqi citizens.

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