THE ROLE OF AGRICULTURE IN THE ECONOMIC DEVELOPMENT OF SYRIA, 1948-1962

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Submitted in Partial Fulfillment of the Requirements
of the Degree of Master of Arts
in the Economic Department of the American University of Beirut
Beirut, Lebanon

May, 1964

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ABSTRACT

This is a study of the main sector of the Syrian economy - agriculture - its performance, problems and contribution, in relation to development efforts of the country, in three specific areas during the period 1948-62. The choice of this relatively short period was dictated by availability of data and the fact that the rate of both agricultural and general development witnessed a rapid acceleration.

The thesis falls in four chapters. The first tries to depict the importance of agriculture in the Syrian economy. No attempt was made to reveal the interdependence between agriculture and other sectors in the process of development. Such probing involves input-output statistical analysis.

The second chapter traces the major developments and problems of agriculture during the period. Special attention was paid to reveal those features which had and would have a bearing on the past and future Syrian development.

The third chapter reviews the contribution of agriculture and its implications to Syrian development in three areas: (a) in satisfying demand for food, (b) as a source of and beneficiary from public revenues, and (c) as an exporter and earner of foreign exchange.

Agriculture has been able, except during the drought years of 1958-61, to produce necessary food supplies as a direct result of

increase in cultivated area and not in response to improved productivity. This made possible the high rate of growth, particularly during 1948-57, without subjecting the economy to inflationary pressures or major balance of payments difficulties. However, the rising ratio in value of food products to income generated in agriculture, indicates that the normal agricultural surplus, which acted as a cushion in the process of development, is constantly thinning because of the associated rapid increase in population and to a lesser extent per capita income. This necessitates either a transfer of resources into agriculture and/or more efficient allocation of resources within the sector. In this context, the stress in the Five Year Syrian Development Plan on agricultural development is highly justifiable.

Syria's capacity to import goods and services remains dependent on agricultural exports which are subject to considerable fluctuations in value, due to changes in volume and/or prices. The favorable change in prices of cotton and to a lesser extent cereals, during 1948-54, provided the stimulus to agricultural expansion which spilled over to the rest of the economy. The high ratio of merchandise exports to exports of goods and services, calls for a diversification of export goods, stability in domestic agricultural production levels and promotion of services, particularly tourism. This would go a long way in increasing Syria's ability to finance the rapidly increasing value of imports without causing major difficulties in the balance of payments.

In the field of public finance, there is a strong evidence that agriculture has been favored in the process of development vis-a-vis the rest of the economy as far as the burden of public revenue is concerned. Fiscal policies should be utilized to combat rising levels of consumption, on the one hand, and the provision of government with funds to finance future broad base of projects.

ACKNOWLEDGEMENT

The writer would like to express his indebtedness to Professor Edmond Y. Asfour under whose direction and guidance this research was done.

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CHAPTER I

PLACE OF AGRICULTURE IN SYRIAN ECONOMY

A. National Income

The production of a country, measured in real terms, is influenced by many factors among which are labor force, capital, natural resources and the social, political, and technological as well as the climatic conditions prevailing in that economy. No economy can grow nor production expand unless the volume of controlable factors increases and their standard improves.[1] The improvement is nowhere reflected better than in a table showing national income estimates. Analysis of national income by origin can throw light on the structure of the Syrian economy, its development, the role, and importance of each sector to the economy.[2] Table 1 shows that the Syrian economy is predominantly based on agricultural activity where the average contribution of the sector to national income has been more than one third. The effect of the erratic behavior of the agricultural sector, due mainly to variation in weather conditions, on national income is obvious. A contrast of the income generated in the

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[1] Muhammad Diab, "The Five-Year Plan of the Syrian Region," Al-Raid Al-Arabi (in Arabic), November 1961, p. 15.

[2] Adel Akel, "Growth and Composition of National Income of Syria, U.A.R.," L'Economie et Finance de la Syrie et des Pays Arabes, vol. 2, 1959, p. 58.

TABLE I

SYRIA - NATIONAL INCOME ESTIMATE, 1953-1962 (BASE YEAR 1956)
(IN MILLIONS OF SYRIAN POUNDS)

	1953		1954		1955		1956		1957		1958		1959		1960		1961		1962	
	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total	Total by Sect.	% Grand Total
ricult.	824	43.6	927	42.6	636	33.1	956	40.6	1067	43.5	702	33.4	721	33.8	636	30.0	805	34.2	1271	42.5
iustrial	227	12.0	246	11.3	264	13.7	267	11.6	288	11.8	304	14.5	315	14.8	341	16.0	352	15.0	387	14.3
ıstruc.	60	3.2	80	3.7	95	4.9	98	4.3	75	3.1	90	4.3	79	3.7	117	5.5	120	5.1	127	4.2
ıid. & Bldg.	116	6.1	122	5.6	130	6.8	137	5.9	144	5.9	155	7.4	163	7.6	170	8.0	178	7.5	184	6.2
ıancial Inst.	22	1.2	37	1.7	41	2.1	44	1.9	48	2.0	46	2.2	45	2.1	45	2.1	32	1.4	49	1.6
vernment[a]	114	6.0	117	5.4	140	7.3	150	6.5	157	6.4	168	8.0	178	8.3	182	8.6	203	8.6	222	7.4
ınsport Commun.	129	6.8	142	6.5	139	7.2	137	5.9	124	5.1	130	6.2	136	6.4	140	6.6	131	5.6	172	5.7
ɔlesale Retail Trade	270	14.3	349	16.0	319	16.6	375	16.3	386	15.8	335	16.0	320	15.0	308	14.5	336	14.2	420	14.0
vices	130	6.9	146	6.7	156	8.1	159	6.9	162	6.6	172	8.2	176	8.2	184	8.7	200	8.5	209	6.9
und ɔtal	1892	100[b]	2186	99.5	1920	99.8	2305	99.9	2451	100	2102	100	2133	99.9	2123	100	2357	100	2987	99.8
lex	82		95		97		100		106		91		93		92		102		130	
· Capita ıcome	518		569		490		572		521		475		458		439		474		538	

[a]Government sector is limited to public administration and does not include the business and development activities of the government.

[b]Total of percentages may not add to 100 because of rounding.

Sources: 1) Syria, Statistical Abstracts. (issue 1962).
2) Banque Centrale De Syrie, Bulletin Periodique, Premiere Annee, No. 2, 1963.

agricultural sector in 1955 (636 Mill. L.S.) and the bumper year of 1957 (1067 Mill. L.S.) reveals vividly the magnitude of change that could take place. Such a change reflects adversely on per capita income, especially on the rural section of the population, where the peasant finds himself, in such bad years, ridden with debt and the victim of usurious rates of interest. Moreover, the volume of exports tends to shrink, and possibly that of food imports expand, which places a heavy burden on the available reservoir of foreign exchange. In contrast to the agricultural sector, the industrial has fared better. Relatively, and absolutely it has gained a growing importance in the economy during the past thirteen years which helped to mitigate the effect of the severe fluctuations in the yields of agriculture on national income.

B. Population and Labor Force.

Agriculture is not only the principal generator of income but also the supporter of a high percentage of population who reside and are employed in the rural areas. The 1960 census is the first exhaustive population census in Syria. No attempts were made, prior to this t[illegible] date, to secure statistical data on the distribution of population according to age, sector, activity and other pieces of information that are essential to gauge different aspects and growth of population.[1] In 1960, the population of Syria was 4,561,209. The rate of population growth has been high in the last decade averaging 2.5 percent yearly increases.[2]

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[1]U.A.R., Syrian Region, Ministry of Planning, Estimate of Population and Labor Resources in the Syrian Region, Note No. 61, 1960, p.1, (in Arabic).

[2]The I.B.R.D. report gives the annual rate of increase between 2 and 3 percent. The United Nations experts estimated the average annual rate of

A high rate of population increase necessitates a high rate of capital formation if the rate of growth of the economy is not to be hampered, assuming, of course, no change in capital-output ratios. In this context, as will be revealed later, the Syrian economy was able to sustain a high rate of growth.

With regard to the distribution of labor force between sectors, there seems to be a considerable spread between the 1960 census and the

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increase at 3.5 percent for the period 1953-60 inclusive. See U.N., Demographic Yearbook, New York, 1961, 15th Issue, p. 112.

SYRIA - ESTIMATE OF POPULATION 1948-1960
(IN 000)

1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
3068	3135	3215	3291	3381	3545	3670	3861	3970	4082	4283	4539	4555

Source: U.N., Demographic Yearbook, 1954, 57, 59, 61.

Excluding Palestinian refugees numbering at 31 December 1950-59, 86,841; 91,365; 95,574; 98,474; 105,515; 109;588; 113,204; 117,437; 121,859; respectively.

The area of Syria is 184,479 square kilometres; accordingly the density for the country on the whole was 25 persons per square kilometre in 1960.

estimates of F.A.O. for 1957.[1]

According to the census, the effective labor force employed in agriculture as a percent of total effective labor force is 52 percent. The F.A.O. has estimated 75 percent of the labor force to be engaged in agriculture; - a high estimate due largely to the inclusion of women in agricultural labor force. Even if we take into consideration the working force in the rural area - which includes employed and unemployed plus outside labor force workers in mines and quarries, manufacturing, etc.

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[1]Tentative estimates of sectoral distribution of labor force were calculated for 1957 by F.A.O. experts in their country study about Syria.

TABLE 2

SYRIA - LABOR FORCE CLASSIFIED BY ECONOMIC ACTIVITY 1957
(000)

Sector	Total	Men	Women	Male Children
Agriculture	1270	665	520*	85
Manufacturing Industry[a]	70	60	10*[b]	n.a.
Crafts	30	30	n.a.	n.a.
Construction	20[c]	20	n.a.	n.a.
General Government (excluding defense)[d]	22	20	2	n.a.
Transport, Trade, Services and Others	273	215	38*	20*
Total	1685[e]	1000	570	105

Source: F.A.O., Syria - Country Report, Rome, 1959 (F.A.O., 59/8/6040), p. II - 11.
*Rough Estimates
[a]Excludes draftsmen who are self employed.
[b]Assuming one third of textile workers are women.
[c]Based on estimates of I.B.R.D. report in 1950 adjusted in proportion to volume of house construction in 1957.
[d]For 1956, excluding workers in industries operated by government.
[e]Excludes 160,000 out of a total 420,000 school children and college students and about 50,000 represents the armed forces.

(See Tables 3 and 4) - as a percent of total working force it stands only at 61%.

TABLE 3

SECTORAL DISTRIBUTION OF LABOR FORCE - 1960*

Sector	Rural		Urban		Total
	Males	Females	Males	Females	
Agriculture	509,140	53,067	45,824	6,743	614,774
Mines and Quarries	2,687	-	7,696	-	10,383
Manufacturing	28,546	7,636	103,962	6,587	146,614
Construction	29,888	289	34,746	129	65,052
Electricity and Gas	1,796	-	8,121	131	10,048
Commerce	39,574	1,449	92,958	1,916	135,897
Transport and Communication	15,545	-	29,882	437	45,862
Services	30,119	7,844	79,807	24,070	141,840

Source: U.A.R., Estimate of Population and Labor in the Syrian Region, op.cit., p. 25.

*The census employed the following definitions:

I. Working force: All individuals whose age groups lie above six and below 65 plus number of individuals working, though outside this range. The working force is divided into A - Inside labor force which comprises: 1. Employed, 2. Involuntarily unemployed. B. Outside labor force - comprises people who are voluntarily unemployed, i.e., housewives, students, etc. In effect, outside labor force = inside working force - inside labor force.

II. Outside working force = all individuals whose age group is below six and above sixty five, i.e., outside working force = total population - inside working force.

TABLE 4

DISTRIBUTION OF LABOR BY STATE OF EMPLOYMENT - 1960*

State of Employment	Rural		Urban		Total		
	Males	Females	Males	Females	Males	Females	Total
Employer	231,369	5,783	117,433	4,017	348,802	9,800	358,602
Employee	425,834	64,502	285,563	35,996	711,397	100,498	811,895
Employed	657,203	70,285	402,996	40,013	1,060,199	110,298	1,170,497
Unemployed	46,533	7,435	23,064	4,257	89,597	11,692	81,289
Labor Force	703,736	77,720	426,060	44,270	1,129,796	1,121,990	1,251,786
Outside Labor Force	574,439	886,186	247,396	546,954	621,833	1,433,140	2,054,975
Working Force	1,078,175	963,906	673,456	591,224	1,751,631	1,555,130	3,306,761
Outside Working Force	380,201	438,936	220,280	215,031	600,481	653,967	1,254,448
Population	1,458,376	1,402,842	893,736	806,255	2,352,112	2,209,097	4,561,209

Source: Ibid., p. 21.

*The percentage distribution is the following:

	% of Total Population	% of Labor Force
Employer	7.9	28.6
Employee	17.8	64.9
Employed	25.7	93.5
Unemployed	1.8	6.5
Labor Force	27.5	
Outside Labor Force	45.0	
Working Force	72.5	
Outside Working Force	27.5	
Total	100	100

If we take males and females separately the following percentage distribution results:

	Males	Females
Labor Force	51.9	5.5
Outside Labor Force	22.5	64.9
Working Force	74.4	70.4
Outside Working Force	25.6	29.6
Total	100	100

The tentative estimates given by Professor Asfour, originally estimated by Syrian Ministry of planning for 1955, places the total working force at 2.9 million out of which 1.8 million were agricultural workers, i.e., 62 percent.[1] If we compare these estimates with those of the census they fare out excellently provided we note that the age brackets of the census cover the age groups 6-65 while Asfour's brackets start from twelve.

An important peculiar characteristic is the high ratio, 47%, of the male age group under fourteen to total population. The age group between 15-59 is also 47% of total population. In advanced countries the percentage of people in the working age group, 15-59, approximates 65 percent which implies that in Syria a heavy burden is placed on the labor force since a high percentage of the population has to be supported by their activity.

TABLE 5

MALE AGE DISTRIBUTION IN THE U.A.R. AND OTHER COUNTRIES

Age Groups	Syria	Egypt				U.S.A.		U.K. & Wales	Japan
	1961	1927	1937	1947	1958	1880	1940	1931	1935
- 14	47%	38%	38%	39%	44%	38%	25%	24%	37%
15 - 59	47%	56%	54%	55%	50%	56%	65%	65%	56%
60 & above	6%	6%	7%	6%	6%	6%	11%	11%	7%

Source: U.A.R., Estimate of Population and Labor, op.cit., p. 12.

[1] Edmond Asfour, Syria: Development and Monetary Policy, Cambridge: Harvard University Press, 1959, p. 13.

The disadvantageous age distribution is accentuated by an uneven geographical distribution of the population.

TABLE 6

POPULATION BY PROVINCE (MUHAFAZA) - 1960

Province	Population (in 000)	Area (000 km^2)	Persons per km^2
Damascus	984	19	50
Homs	467	42	11
Hama	358	8	45
Aleppo	1,429	23	62
Latakia	573	4	126
Al-Hasakeh (Jezireh)	299	22	14
Deir-ez-Zor (Furat)	386	55	7
Sweida	142	6	26
Dar'a	200	4	48

Source: U.A.R., Syrian Region, Statistical Abstract, 1960.

The density per square kilometer varies from a low of seven persons in Deir-ez-Zor to 126 in Latakia. The opening of Jezireh to extensive mechanized agricultural exploitation in the late nineteen forties did not bring in its wake a migratory wave of agricultural labor from the relatively densely populated old agricultural regions, i.e., Latakia, Sweida and Dar'a. The lack of government initiative in building all-year means of transport and communication, housing projects, electricity, etc., coupled with some sociological factors, did not encourage the peasant to migrate

on permanent basis to the newly opened regions.

Syria like other agricultural economies suffers from the problem of underemployment. Approximately 57% of the agricultural labor is not effectively employed. The position of Syria, compared to other underdeveloped countries, is better off.

TABLE 7

UNDEREMPLOYMENT IN AGRICULTURE FOR SELECTED COUNTRIES

Country	Year	Agric. Labor Force Mill. Man Units	Annual Work Load Mill.Days	Work per Unit of Labor Force Days/Year	Percentage Effective Employment
Portugal	1950	1850	250	135	45
Spain	1956	5800	950	164	55
Italy	1951	8500	1240	146	49
South	1951	3700	400	108	36
North	1951	4700	840	179	59
Greece	1956	1650	310	188	63
Turkey	1955	6100	1325	217	72
Iraq	1957	1500	240	160	53
Syria	1957	1000	190	190	63
Tunisia	1957	1000	130	130	43
Morocco	1958	2600	431	166	55

Source: F.A.O., [illegible] Medeterranean Development Project, Rome, [illegible], 1959, p. 45.

A more meaningful approach would be to see the estimates on the state of underemployment in the different Muhafazas. Unless we know the magnitude of underemployment in each Muhafaza, a policy maker cannot know the location of the redundant labor and consequently the nature of the proposed solution.

TABLE 8

SYRIA - ESTIMATE OF UNDEREMPLOYMENT*

Muhafaza	Labor Force (000)			Agricultural Work Load (000)				Excess Labor
	Men	Women	Children	Weighted Total	Male	Female	Total	% of Total
Latakia	84	66	11	142	33	29	62	56.3
Aleppo	178	139	22	300	110	75	185	38.3
Homs, Hama, Damascus	211	164	27	356	125	62	187	47.5
Dar'a & Sweida	65	51	8	110	34	18	52	52.7
Euphrates & Jezireh	127	99	16	214	104	37	141	34.1
Total	665	520	85	1123	405	220	630	43.9

Source: F.A.O., Syria - Country Study, op.cit., p.II-14.

*There seems to be a difference in the estimate of total underemployment in Syria between Table 7 (37% of agricultural working force underemployed) and Table 8 (44% of agricultural working force underemployed). Even though, the two estimates were calculated by F.A.O. experts but different methods were used. Table 7 is based on the figures of labor force in agriculture (see Table 2) and the excess of their labor potential - assuming 300 working days a year, women labor is equivalent to 80% of man's and a child to 50% - over the estimated labor required with present techniques to cultivate the area actually planted under the various crops (workload). See F.A.O., Syria - Country Study, op.cit., p.II-14.

In Table 8, the manpower figures indicate the theoretically available manpower within the agricultural population of each country, assuming standard rates of disability and of participation of women and children, to be uniformly applicable in all countries. Population data by age and sex were reduced by the following conversion factors: men aged fifteen to sixty five = 0.9; women (15-65) = 0.36; children (12-15) = 0.45. The workload in agriculture was calculated by combining the agricultural statistics with data on efficiency of labor. For each crop and for each kind of livestock, a norm was found or projected, corresponding to the efficiency level in the country. Allowance was made for the impact of existing mechanization, and for differences in the intensity of fatening especially those associated with the irrigation. See, F.A.O., Medeterranean Development Project, op.cit., p. 43.

Even though, as noted by F.A.O., these are rough estimates, they do give a general picture about the relative degree and order of underemployment in the different provinces in Syria. Latakia, suffers from the highest percentage of underemployed agricultural workers (56%), followed

by Dar'a and Sweida - 52% (See Table 8).

The implication of these estimates is to resort to intra-and/or inter-sectoral redistribution of the agricultural population. Assuming no change in techniques in the agricultural sector, such a redistribution would on the one hand raise productivity in the agricultural sector and, on the other, supply the rising industrial sector with the necessary labor force and a wide market for its product. If an intra and/or an inter labor redistribution is attempted one has to keep in mind the huge costs involved in the provision of houses, schools, medical attention, etc. An exodus from the agricultural to the industrial and other sectors of the economy can result because of the higher average money income in industry as compared to agriculture. However, the question hinges more on the kind of labor demanded by the industry rather than on the availability of unskilled, illiterate and traditionally oriented pool of labor.

C. Transport.

The development of transport and communication system did not cope with the expansion of activity of the economy during the last fifteen years. "Although Syria is served by three railways, all were built before the break up of the Ottoman Empire and therefore do not adequately serve the needs of an independent Syria. The gauges are not uniform, and there is no direct rail connection between Damascus and Aleppo. All of the substantial increase in traffic since the pre war period has been absorbed by motor transport. Even such bulky commodities as cereals are now transported mostly by road. Yet the road system is also far from adequate and transport costs are very high."[1]

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[1] I.B.R.D., The Economic Development of Syria, Baltimore: Johns Hopkins Press, 1955, p. 14.

This describes well the state of transport and communication system up to 1955. Since then, transport conditions have changed little except for the improvement of the Latakia and Tartous harbors, and, more important, the initiation of work on the Latakia-Aleppo-Kamishli railway. The main seaport in Syria is that of Latakia which has been improved to cope with the increasing volume of export-import activities. The importance of constructing a railway that would connect Latakia to Jezireh-Euphrates area (distance of 600 klm.) has long been recognized by students of the region and government officials. Not only would it serve to reduce appreciably the cost of transporting the bulky agricultural products but also secure an all year means of transport which would encourage a higher rate of settlement and expand the potential domestic market of Syria.[1] The other port of Banias handles just the oil flowing through pipelines from Iraq but recently it has been improved to handle agricultural products. Banias can become an important outlet for the triangle of Hama-Homs-Selamye provided a railway track connecting Hama with Banias is built.

Road transport has grown rapidly during the last decade due to the lack of adequate rail facilities on the principal routes along which agricultural commodities had to be transported in increasing volumes particularily from the Jezireh to Aleppo-Latakia. In general, roads are poorly maintained which entails heavy rates of depreciation of trucks and cars and interruption of traffic.

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[1] Officials in the Syrian Ministry of Planning told the writer that currently (December 1963) work is proceeding on ground leveling. Moreover, the rails have already been imported.

LENGTH OF THE SYRIAN MOTOR CAR ROAD - 1962

Total	Asphalted Roads (km.)	Paved, Non Asphalted Roads	Leveled Roads (km.)
7450	4763	788	1879

Source: Syria, Statistical Abstract, 1962.

If we take the density of available roads in relation to total area of Syria we find the following:

$$\frac{7450 \times 1000}{185000} = 40 \text{ Km. of roads in every } 1000 \text{ Km.}$$

This is a very low figure compared to the country's present and future demand on road transport. Moreover, even this density is not evenly distributed among the different Mohafazas.

TABLE 9

LENGTH OF THE SYRIAN MOTOR CAR ROADS BY MUHAFAZA - 1962

Muhafaza	Asphalted Roads (Km.)	Paved, Non-Asphalted Roads (Km.)	Leveled Roads (Km.)	Total (Km.)	Density/ 1000 Km.
Damascus	1016	186	306	1508	8.1
Homs	589	62	53	704	3.8
Hama	379	29	112	520	2.8
Latakia	647	21	13	681	3.6
Idleb	493	57	46	596	3.2
Aleppo	608	51	100	759	4.1
Al-Rakha	163	37	3	203	1.0
Hasakeh	228	98	272	598	3.2
Deir-ez-Zor	181	152	310	643	3.5
Sweida	182	11	314	507	2.8
Dar'a	277	84	350	711	3.8
Total	4763	788	1879	7430	39.9

Source: Syria, Statistical Abstract, 1962, p. 310.

The average density of roads per 1000 Km. in the important agricultural region of Jezireh-Euphrates (Muhafazas of Al-Rakha, Hasakeh and Deir-ez-Zor) is only 2.5 Km. compared to 8.1 Km. in Damascus, 4.1 Km. in Aleppo and 2.8 km. in Hama and Sweida. The density is even lower in Jezireh if we take into consideration only all year transport roads.

That the agricultural sector is the principal customer of the transport facilities is empirically verified from the volume of tonnage carried by railways, trucks and through seaports. The growth of the agricultural sector is the sine quo non for the growth of transport activity if excess capacity is to be avoided in the future.

D. Industry

The industrial development in Syria started during the inter-war period. Before that time, there existed a great number of handicrafts, producing various primitive industrial goods which were faced by strong competition from foreign manufactured goods.

The shortage of many goods during the World War II opened the eyes of energetic entrepreneurs to the great potential that existed for local industries.[1] The increased government interest in industrialization manifested itself in acts of protection, custom exemptions on machines and raw materials and trade embargoes. The accent on industry was stressed because it was felt that the Syrian economy was vulnerable since it depended on two main crops (wheat and barley), the prices of which were determined inter-

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[1] The huge expenditures of the occupation armies estimated at 800 million L.S. provided merchants and the small industries with abnormal profits that were ploughed back for the erection of new industries and the improvement of old ones. See, Ahmad Samman, Economics of Syria (Arabic), Institute of Higher Arab Studies, 1955, p. 42.

nationally and subject to secular deterioration of terms of trade.

The paucity of natural resources, such as coal, iron, copper, etc., on the one hand and the limited extent of the domestic market (purchasing power) on the other, shaped between them the kind of industrial growth that emerged and picked up momentum after 1945 in Syria. Aside from cement, extraction of oil and salt industries, the industrial structure became heavily dependent on raw materials provided by the agricultural sector. Theoretically speaking, raw materials supplied by the agricultural sector and demanded by the different industries, assuming a given state of arts, do not only affect the cost structure of industries but provide a link between the two such that they are affected mutually in good and bad years.[1] In a year of good crops and inadverse prices, the per capita income of the rural sector would be higher than in a year of drought, and even though a high portion of the marginal disposable income would be spent on increased and/or improved food intake still a portion would be expended on cloth, cigarettes, etc., which would reflect advantageously on the profits of business men.

In Syria, the spectacular increase in the cultivation of cotton[2] brought in its wake an appreciable increase in the number of ginning, spinning, and weaving establishments. Between 1944 and 1959 cotton yarn output grew from 1715 to 9327 tons. Other industrial crops such as tobacco furnished the raw materials for the tobacco and tunbac industry. Food industries such as sugar refining, conserves, and olive oil also

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[1]Pei-Kang Chang, Agriculture and Industrialization, Cambridge; Harvard University Press, 1949, p. 45.

[2]For the year 1949-50 cotton production rose from 13000 tons to 35495 tons. See, Directorate General of Information, Syria - Economy and Finance, Damascus: 1955), pp. 52-53.

thrived on the sugar-beet, the Ghuta Orchards and olive trees of Latakia and Aleppo.

Aside from the direct supply of raw materials to industry, the increase in the expenditure of government and private sector on irrigation works and land reclamation gave the industrial sector, in the way of providing cement, wood products, glass, etc., a considerable volume of business.

TABLE 10

PRINCIPAL MANUFACTURING INDUSTRIES IN SYRIA - 1953 and 1959

Type of Industry	1953			1959		
	No. of Establishments	Capital Million L.S.	No. of Workers	No. of Factories	Capital Million L.S.	No. of Workers
Textile	1201	67.2	31450	1894	200	24352
Food	776	55.3	9200	609	69	6175
Others	106	28.8	4275	884	93	9639
Total	2083	151.3	44925	3387	363	40166

Source: 1) For 1953, Asfour, op.cit., pp. 28-29.
2) For 1959, Aleppo Chamber of Commerce, Economic Bulletin, 1960, p. 302.

There is no doubt that the coverage of the estimates of 1953 and 1959 were different (Table 10). In particular the 1953 estimates include handweaving and other handicrafts while the 1959 estimates included only mechanized factories. Clearly the assumption made when conducting such estimates affect greatly the magnitude of difference between different studies. The 1959 estimates are more reliable because of the detailed list that included the Syrian industries operating at the end of 1959. Using

the figures with caution, though relatively the mechanical and chemical (others) industries grew at a much more rapid rate than both textile and food but in absolute amounts the latter still hold the place of honor in the Syrian industry. This becomes clearer if we look at the relative contribution of various industries to national income.

TABLE 11

NATIONAL INCOME ORIGINATED FROM MAJOR MECHANIZED INDUSTRIES VALUED AT 1956 PRICES, 1953-60 (MILLION L.S.)

Industries	1953	1954	1955	1956	1957	1958	1959	1960	Total
Extractive	0.3	0.4	0.3	0.5	0.4	0.4	0.4	0.4	3.1
Food	9.8	10.0	13.0	14.0	15.4	16.1	11.1	19.3	106.7
Beverages	0.8	0.8	0.9	1.0	1.9	2.1	1.8	1.9	11.2
Tobbaco	6.4	6.6	6.8	7.0	6.6	6.5	7.2	7.8	54.9
Textiles	42.6	43.9	48.9	42.0	48.2	51.5	52.2	56.2	385.6
Paper	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	3.7
Rubber Shoes	0.8	0.9	1.2	1.0	1.4	1.5	2.2	2.2	11.2
Chemicals	3.3	3.5	3.7	4.0	5.5	6.0	7.7	7.4	41.1
Non-Metallic	9.5	10.3	9.7	13.0	11.7	16.2	16.9	19.5	106.8
Electricity	5.3	5.6	6.2	7.0	11.2	12.5	14.3	14.4	76.5
Total	79.2	82.5	89.3	90.0	100.8	113.3	114.3	129.3	779.0

Source: Adel Akel "Analysis of Syrian National Income - Estimates for 1953-1960," Aleppo Chamber of Commerce, Economic Bulletin, 1961, p. 175.

The food factories included comprise only 20% of the total number of establishments[1] which means that a great number of factories utilize simple methods of processing that are labor intensive. Hence, the

[1] Ibid., p. 174.

estimates of 1959 greatly underestimate the labor force in food industries since a high percentage of the establishments is excluded.

During the period 1953-60 inclusive, the total contribution of food and textile industries, which largely use domestic agricultural raw materials, was 64% of total industrial contribution to national income. Growth of the food industry was accompanied by a change in techniques in some of the old establishments and the majority of the new ones. The application of mechanized methods is especially rewarding because of the vastly improved quality and greater quantity that could be realized. The use of corporations as a type of business organization in industry had increased in importance over the last fifteen years. In 1945 the total number of corporations numbered ten with an estimated capital of 24,548,000 L.S. while in 1960 the number stood at 155 with an invested capital of 284 million L.S. - by any measure an extraordinary increase. The trend to establish more corporations has many advantages. First, it helps to aggregate the savings of different group, especially the small investors. Second, it makes feasible the launching of business which could benefit from economies of scale and other benefits that are peculiar to the corporation.[1]

The two major attributes that characterized the development of Syrian industry in the post war period were over-expansion and the dominance of light industries. The difficulties that were encountered by the

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[1]Adel Akel, "The Nature of Syrian Production and System of Exchange," L'Economie et Les Finances de la Syrie et des Pays Arabes, Vol. 5, February 1962, p. 64.

cotton spinning mills as a result of their rapid growth were as great as those of the glass factory near Damascus whose capacity exceeded by far the existing market demand. Actually in 1955 several industries suffered from over-production due to the narrowness of the local market and lack of export outlets. Many textile mills had to shut down in Aleppo. It was this deteriorating situation of textile industry that called forth the establishment of the Foundation for Encouragement of the Cotton Textile Industry in February 1960 by the government.[1]

The turbulent nature of Syria's political life since 1949 has been an obstacle to expanding its external markets for industrial products. There has always been disagreement between the rulers of Syria, irrespective of their political and ideological shades, and those of Jordan, Iraq, Egypt and Saudi Arabia. These disagreements usually surpassed the political and encroached on the economic and commercial relations - a fact that made Syria lose one or more of its natural and traditional markets at different times.

E. Economic Growth

Syria can be taken as an excellent example of a developing country that was able to achieve a high rate of growth, primarily shouldered by a receptive middle class and financed from within the economy. From 1953-1957 real national income increased at an average rate of 7% per year. If we accept an average rate of population increase of 2.5% then per capita growth averaged 4.3%. However, there is some evidence that a comparison

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[1] K. Grunwald and J.O. Ronall, Industrialization in the Middle East, New York: Council for Middle Eastern Affairs Press, 1960, pp. 309-312; also, see Samir Makdisi, "Syrian Industrial Growth 1939-1957," Al-Abhath, vol. 13, September 1960, 459-460.

of average rates of growth in 1950-57 as a whole and 1953-57 inclusive, shows a declining rate of growth during the latter period if compared with the former.[1] This can partially be explained by the mounting difficulties that entrepreneurs faced as they expanded their investment in agriculture and industry. The difficulty of expanding the irrigated area, due to technical problems or economic considerations, without help from the public sector on the one hand and the limited extent of the market for industrial products accentuated by a relatively high cost structure, on the other, stood as important obstacles in the face of the private initiative.

The bias apparent in the pattern of investment (see Table 12) in favor of construction despite the high capital-output ratio, can be explained on several grounds. First, the security and ease of investment in buildings and the social prestige attached to ownership of buildings are firmly established in the Syrian mind.[2] Second, the considerable decline in the prices of cotton after 1954 acted as a powerful break on the expectations of potential investors who were faced, moreover, with the prospects of higher costs since already the fertile and/or easily irrigable land were utilized. Third, the political factor, though often neglected, weighed heavily[3] against heavy investment in agricultural land.

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[1]Samir Mikdisi, "Some Aspects of Syrian Economic Growth," Middle East Economic Papers, Dar-al-Kitab, 1961, p. 46.

[2]Asfour, op.cit., p. 78.

[3]In 1954 the regime of President Shishakli who had provided order in the rural areas was dislodged from power. In the elections of the same year, the Arab Renaissance Party captured 16 seats and started working relentlessly to promulgate land reform. In 1955 a land reform bill was defeated in the Parliament.

TABLE 12

SYRIA - GROSS FIXED CAPITAL FORMATION (L.S. MILLIONS)*

Item	1950		1951		1952		1953		1954		1955		1956	
	Total by Item	% of Sub. Total	Total by Item	% of Sub. Total	Total by Item	% of Sub. Total	Total by Item	% of Sub. Total	Total by Item	% of Sub. Total	Total by Item	% of Sub. Total	Total by Item	% of Sub. Tota
Private Expenditures														
1. Bldg. Construction	62	42	57	35	73	53	89	50	108	41	109	39	107	41
2. Industrial Mach. & Equipt.	33	22	31	19	21	15	58	30	71	28	77	27	69	27
3. Agric.-Imported Machin.	10	7	28	17	15	10	10	4	23	9	22	8	9	3
4. Agricultural - Others	32	21	31	19	16	11	11	5	13	5	35	12	42	16
5. Trade & Bus Transport	10	7	14	9	15	10	23	11	43	17	38	13	29	12
Sub-Total	147	99	161	99	140	99	191	100	258	100	281	99	256	99
Public Expenditures														
1. Irrigation	1.3	4	2.3	6	3.4	9	4	9.8	4.3	9	6.4	10	12.3	15
2. Industrial Equipment	4.5	14	7	20	9.5	24	2.4	5.8	3.8	8	7.1	11	10.0	12
3. Communication (Roads, Bldg. etc., Including Tel.)	7.0	22	6.8	19	6.0	15	6.2	15.2	12.0	26	19.2	30	21.0	26
4. Bldg. Construction	4.0	13	2.9	8	2.1	5	3.3	8.1	3.8	8	4.8	8	9.0	11
5. Municipal Services	10.7	34	12.0	34	13.5	34	20.0	49.1	16.0	35	16.5	26	19.8	24
6. Maintenance (Roads, Bldg. etc.)	3.6	12	4.3	12	4.9	12	4.8	11	5.7	13	9.7	15	9.5	12
Sub-Total	31.3	99	35.3	99	39.4	99	40.7	99	45.6	99	63.7	100	81.6	100
Total Gross Fixed Capital Formation	178		196		179		232		304		345		338	

*Percentages may not add to 100 because of rounding.

Source: F.A.O., Syria: Country Report, op.cit., p. II-39; and Asfour, op.cit., p. 73.

Fourth, the indivisibility of the volume of funds required to irrigate and/or reclaim a piece of land of economic size was in contrast to the ability of the investor to apportion his investment on the erection of a building. Private investment in agriculture fluctuated from a high of [illegible] of total private investment in 1951 to a very low of 9% in 1953. It is interesting to note how the spetacular rise of private investment in construction from 55% in 1951 to 53% in the following year affected the percentage investment in both industry and agriculture. (See Table 12).

Aside from the expenditure of government on education and the building of the army arsenal, the average rate of investment as a percent of gross national product between 1950-56 inclusive was 15.7. This high rate of capital formation was achieved without subjecting the economy to inflationary pressures since domestic savings financed more than seventy five percent of the gross investment in the said period.

The inconspicuous role played by the public sector, aside from the field of education, in the spurt of the Syrian economy has been well highlighted by most of the country's students. However, between 1950-1956 inclusive the volume of public investment tripled while that of the private hardly doubled. This is because public investment started from such a low level compared to private investment.

TABLE 15

INDICES OF GROSS NATIONAL PRODUCT, FIXED CAPITAL FORMATION AND SAVINGS AT CONSTANT PRICES

Year	G.N.P. Index 1953 = 100	Consumption Index 1953 = 100	F.C.F. Index 1953 = 100	F.C.F. % of G.N.P.	Savings[a] % of G.N.P.(1)	Savings[a] % of G.N.P.(2)
1950	88	89	76	13.5	12.6	13.5
1951	83	86	85	15.6	8.6	9.2
1952	95	101	70	11.2	7.4	7.9
1953	100	100	100	15.4	13.0	13.8
1954	122	125	135	17.0	11.3	12.3
1955	112	110	153	21.0	13.7	15.0
1956	139	134	149	16.5	10.5	16.8

Source: F.A.O., Syria: Country Report, Ibid., p.II-37.

[a]Savings include allocation for maintenance and depreciation as well as savings by the private and public sectors. They are defined as fixed capital formation less the deficit on current account in the balance of payments. Column (1) is calculated by excluding revenue from oil companies (Transit fees, profits on exchange transactions, etc.) from the current account while Column (2) includes such revenue.

The higher rates in 1955 and 1956 are in part due to an increase in revenue from oil companies and in 1956 also to the extraordinary payments made by the companies in settlement of outstanding claims.

The Syrian experiences compares excellently with other countries.

PERCENTAGE OF GROSS INVESTMENT TO GROSS NATION PRODUCT

Country	1950	1956
Malaya	5.1	10.5
Columbia	9.9	12.5
Turkey	9.5	14.5
Syria	12.5	16.7
Denmark	21.0	17.8
U.K.	11.0	16.3
U.S.A.	20.0	14.4

Source: Adel Akel, "Growth and Composition of National Income in Syria - U.A.R.," op.cit., p. 58.

CHAPTER II

THE AGRICULTURAL SECTOR, 1948-62

A. The Agricultural Sector in the Process of Development.

The agricultural sector in underdeveloped countries exhibits two main related features that reflect respectively its present and changing future role in the process of economic development. First, is the position of agriculture as the main employer of economic factors and generator of income. Second, and concomitant with the first, is the secular decline in the relative position of the agricultural sector as the economy develops over time.[1] The support of the second thesis is both based on theoretical statements and statistical data. The theoretical arguments are based on a belief that as the income of a community rises, less will be spent on food, i.e., food is characterized by an inelastic income demand[2] (Engel's law). Statistically, Simon Kuznets in an attempt to examine any likely association that exists between the structure of labor force and income between countries and overtime also found out, in all the countries, a relative decline in the agricultural share of national income and labor force associated with growth in income.[3]

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[1] Bruce F. Johnston and John W. Mellor, "The Role of Agriculture in Economic Development," American Economic Review, vol. 51, 1961, pp. 566-587.

[2] Harvey Leibenstein, Economic Backwardness and Economic Growth, New York: John Wiley and Sons, Inc., 1957, pp. 29-31.

[3] Kuznets divided the economy into three sectors: (a) A-Sector (Agriculture), (b) M-Sector (Manufacturing including construction), (c) S-Sector (Services). Moreover, he classified the countries into seven groups with respect to the level of income. He followed two approaches. First, by taking a certain period and investigating the relationship that existed between countries. Second by taking countries over time and ascertaining the changes in the course of development. See, Simon Kuznets, Six Lectures on Economic Growth, Illinois: Free Press of Glencoe, 1959.

On the other hand, remuneration of labor in agriculture need not decline as a consequence of the relative shifts in sectoral shares of national income under certain conditions: First, if the absolute growth of agricultural output and demand for food increased more than, or remained equal to growth in agriculture's labor supply; Second, if the supply of labor to agriculture were highly elastic. Usually one or both of these conditions was disturbed in all of the countries studied by Kuznets.[1] This begs the question whether the relative position of the agricultural sector worsens or improves in the process of economic growth. What then can be said of a possible relationship between the stage of economic growth and the position of per capita income in agriculture? To shed light on these questions we have again to use Kuznet's data.

The data do not reveal a definite one-way trend in the ratio of income of agricultural worker to income of non agricultural worker over time with the implication that the relative place of agricultural worker has not shrunk with respect to time and economic growth. But, given the initial higher level of income in the non-agricultural sector, an equal growth rate means a large absolute difference in purchasing power.

Kuznet's conclusions can be summarized in the following:

1. In all countries the shares of the A-Sector both in income and labor force decline over time while, aside from few exceptions, the relative share of M-Sector rises.

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[1]Earl O. Heady, Agricultural Policy Under Economic Development, Ames, Iowa State University Press, 1962, p. 97.

2. There is a negative correlation between the share of A-Sector and level of income per capita; the correlation being low in countries enjoying high per capita income and high in countries with low per capita income. In case of M and S sectors the correlation is positive.

3. "...The relative product per worker in the A-sector is below 1.0 in most countries, i.e., lower than country-wide product per worker in the non-agricultural sectors combined."[1] Underdeveloped countries are further behind developed countries in agricultural per capita product in comparison to the non-agricultural sectors.

4. A ranking of per worker product in the three sectors shows that the rise has been greatest in A-sector followed by M and S sectors respectively.

5. While levels of income in A, M and S sectors moved up, the trend (income per worker) manifested opposite movements with the result of a convergence between the three sectors, i.e., reduction in the inequality in income per worker between sectors.[2]

The implications of these findings can be summarized in the following points:

1. There is a secular decline in the relative share of agriculture, both in income and labor force, as the economy moves through higher stages of development. The main force behind this trend is the changing nature of demand in the process of development, i.e., inelastic income demand with respoect to food.

2. The increase in per capita product in A-sector at a more rapid rate as compared with non-agricultural sector seems to suggest that "...an

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[1] Kuznets, op.cit., p. 54.

[2] Ibid., pp. 48-57.

agricultural revolution - a marked rise in productivity per worker in agriculture - is a pre-condition of the industrial revolution for any sizable region in the world."[1]

The paucity of statistical data in Syria about the occupational distribution of labor force in the late forties and the disposable per capita income in the different sectors renders the construction of a time series showing the trend in the agriculture working force and the ratio of income of agricultural worker to income of non-agricultural worker very difficult. One source estimated the working agricultural labor force, based on estimates of the ministry of agriculture, in 1946 at 682,767, i.e., 68% of total working force.[2] In 1955 the percentage dropped to 62%[3] and in 1960 it stood at 61%. Except for 1960 the estimates are unreliable and thus it is dangerous to infer that there has been a secular decline in the agricultural working force. Unless the real per capita income rises to a level where the income inelasticity of demand for food causes a good portion of the marginal income to be spent on items other than food and unless the productivity per worker in the agricultural sector rises to allow a net release of labor to the rest of the economy, one can hardly conceive of a secular decline combined with higher per capita income to take place in the agricultural sector. The real per capita income in Syria is not only low but

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[1] Ibid., pp. 59-60.

[2] Izzat al-Nass, The Population Situation in the Arab World, Cairo: Al-Resala Press, 1955, p. 140, (in Arabic). In 1944, the estimates of rural population as a percent of total population was 71% excluding nomads and 75% inclusive of nomads. See, Alexander Gibb, The Economic Development of Syria, Damascus: Republic of Syria Press, 1950, p. 4, (in Arabic).

[3] Asfour, op.cit., p. 13.

subject to considerable fluctuations. For example, in 1957 it was 591 L.S. while in 1960 it dropped to 438 L.S. On the other hand the expansion of the industrial sector in the last decade, though significant, has not absorbed great numbers of rural workers. The obstacles faced by the industry both on the side of demand (low purchasing power) and on the side of supply (high cost of power) militated against a faster rate of expansion of the industrial sector.

If we go back to national income estimates for 1950 to 1962 we are struck by the large ebb and flow in the income generated in the agricultural sector. If plotted graphically in juxtaposition, the development of agricultural and industrial sectors reveal two important points. First, is the smooth and steady growth in the income of the industrial sector in contrast to the violent swings in the income of the agricultural sector. The industrial sector's share of national income by the end of the last decade has grown from 11.7% in 1950 to 14.3% in 1962 while the agricultural position also improved slightly from 41.8% to 42.5% for the same period (see graph I).

Second, it is noted that a span of twelve years is too short a period to deduce from it whether there has been any secular decline in the agricultural sector. The study of Kuznets indicates, however, a close association between the stage of development attained and the relative decline of agricultural sectors in the countries he studied. It seems that the secular decline takes place somewhere between the end of "take off" stage and the beginning of "maturity." However, in the interim, agriculture has an important role to play. The take-off into self sustained growth, in the opinion of Rostow, greatly hinges on the fulfillment of agriculture's contribution in the progress of development.[1]

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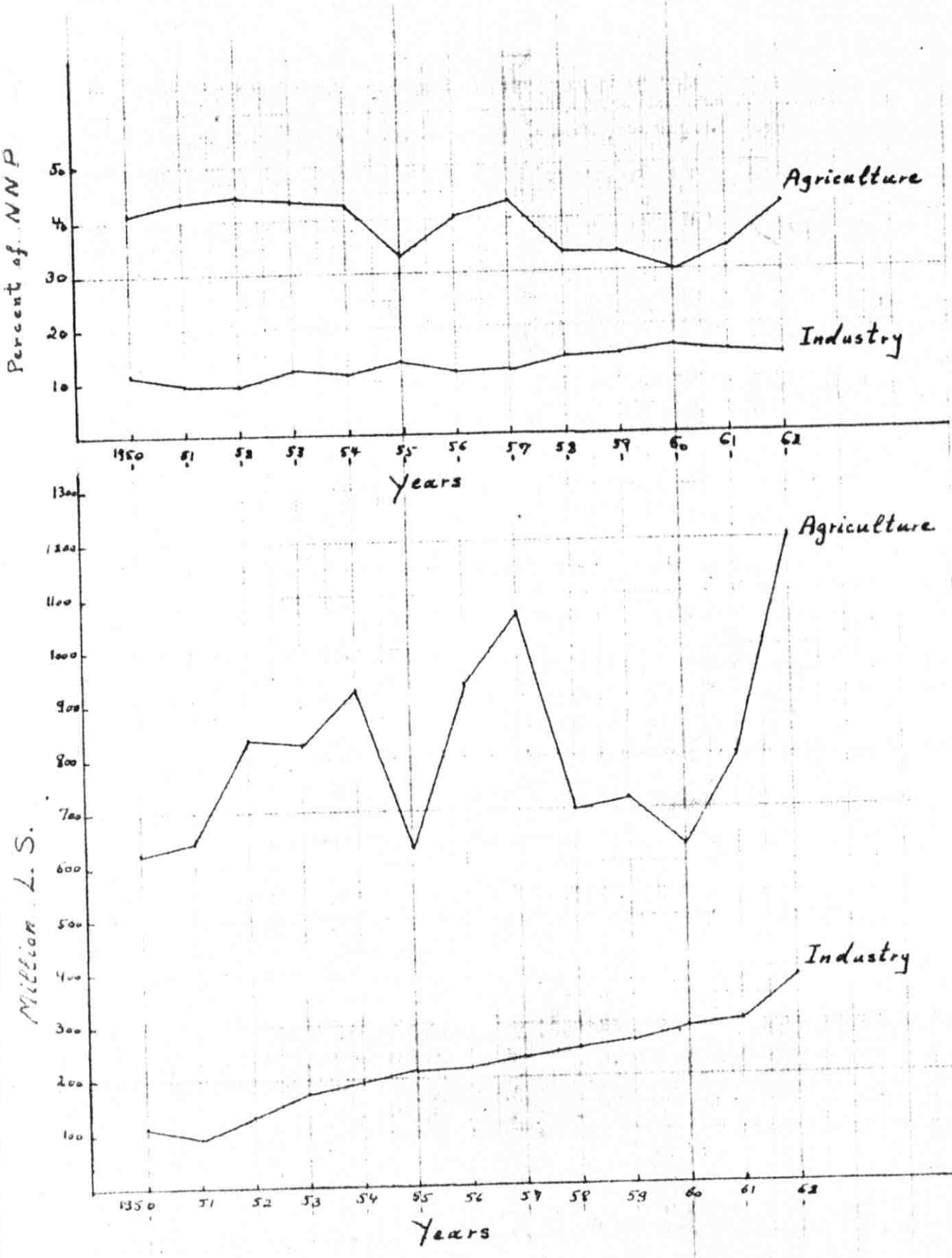
[1] W.W. Rostow, The Stages of Economic Growth, London: Cambridge University Press, 1961, pp. 21-24.



I. Income generated in Agricultural and Industrial Sectors

It is important at this point to analyze the characteristics and problems of the Syrian agricultural sector during 1948-62. What were the factors behind the fluctuations in agricultural production? How was productivity affected? How did institutional factors obstruct or smooth the advance of the sector? Have there been any permanent changes in the agrarian structure? To these and related questions we turn our attention.

B. Land Tenure

"The concept 'land tenure' refers to the manner in which and the period for which rights in land are held."[1] The ownership of property with the concomitant 'bundle of rights' that go with it, creates a certain pattern of relationships among men. "Society always reserves at least three specific sticks out of the bundle of rights in land - the rights to tax, to condemn and to police."[2] The importance of land tenure as a strategic factor in the economic development of underdeveloped countries need hardly be stressed. Basically agricultural, with low standards of productivity, be it per laborer or per hectare of land, these countries are usually chained to an agrarian structure that "stands in the way of any long-term increase in productivity because it prevents investment both by reducing farmers' funds for investment and by reducing incentives to increase production."[3]

1. Arab Conquest:

Syria has not been an exception to this dim picture. One of the main maladies of the Syrian peasant has been the land tenure system under which he had

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[1]Marshall Harris, Origin of the Land Tenure System in the United States, Ames: Iowa State College Press, 1953, p. 1.

[2]Ibid., p. 5.

[3]United Nations, Land Reform - Defects in Agrarian Structure as Obstacles to Economic Development, New York: Department of Economic Affairs, 1951, p. 65.

toiled patiently for centuries. The roots of the system go back in history as early as the Arab conquest of the country. The conquered lands became owned collectively by the community. The previous cultivators of land were allowed to carry on their activities provided they paid a rent tax (Karaj) to the appointee of the Caliph - the Amil (agent).[1] Later, the caliph fixed a yearly flat sum of money to be surrendered by every Amil as a tax and simaltaneously gave the Amil power to tax the people in his province as he saw fit or necessary. This was an open invitation for corruption. For the Amil, in turn, leased his power to the "highest bidders" who ruthlessly indulged in securing the widest spread between what they paid the Amil and what they extracted from the peasant population. "As the tax farmers were acting in the name of the Caliph or his Amil, they came to be regarded as the lords of the lands and the occupiers as lessees, tenants and simple serfs depending on their wealth and influence. Feudatory relations were thus born out of an abuse of the system of tax collection."[2]

2. Ottoman Empire:

This state did not improve under the Ottoman Empire where the military class replaced the tax farmers. The land was divided into four categories: (1) Khas (private) lands owned by the Sultan; (2) Zaameh (leadership) lands given to notables and military men in exchange for services rendered to the Sultan; (3) Timar lands given to courageous soldiers; (4) Wakf lands.[3]

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[1]Paul J. Klat, "Whither Land Tenure in the Arab World," Middle East Economic Papers, Economic Research Institute, A.U.B., Dar-Kitab, 1955, p. 49.

[2]Ibid.

[3]Akram el-Ricaby, "Land Tenure in Syria," Land Tenure, ed. Kenneth H. Parsons, Raymond Penn, and Philip Ramp, Madison: University of Wisconsin Press, 1956, pp. 85-86.

In 1858, the first land registration (Tapu) was carried out in Syria. Consequently the utilization (Tasarruf) right to land became subject to the written permission of land registrars. The corruption of these employees was exploited by the feudal lords to augment their already extensive land holdings. Moreover, the ignorant fellah, fearful that the registration was undertaken to levy higher or new taxes registered their lands in the anmes of important people in their localities who were more than happy to accommodate and protect the peasant against an imaginary evil. The land was divided into (1) Mulk (owned) lands (2) Emiri - lands owned by the state and usually utilized by individuals under certain conditions, (3) Wakf (4) Matruka - public lands such as roads, parks etc., (5) Mawat - dead lands not owned or used by anybody, (6) Musha'(communal holdings).

The Islamic inheritance laws have been instrumental in the appearance of the Musha' (communal) holdings. "In its primitive form, a musha village is above all characterized by the minute fragmentation of the land into holdings which usually take the form of long narrow strips."[1] The Musha holdings, through the periodic redistribution of plots among peasants, militates against any possible improvement of the land and the excessive fragmentation of land leads to uneconomic plots that result in very low productivity standards.[2] Fortunately, the number of villages in Syria where musha form of land tenure is practiced has been decreasing steadily due to the endeavors of the government since 1934 to encourage and hasten the process of land registration.

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[1]Paul J. Klat, "Musha Holdings and Land Fragmentation in Syria", Middle East Economic Papers, 1957, p. 14.

[2]In the village of Talliseh, it was reported that one person owned shares in sixty seven musha plots, each not exceeding one and one half meters in width.

"The great merit of the new laws was that they codified and gave recognized authority to numerous existing customs and practices."[1] The area of Mulk land was extended due to the free interpretation of the Islamic law. The Caliph, the jurists held, had the right to sell Kharajie land (Emiri) if it happens that such land reverts to the state because of no heirs. Also land was sold when the treasury was empty or when the sale presented to the state an evident moral or pecuniary advantage."[2] With regard to Emiri land the power of the tax farmers was curtailed greatly because tapu departments assumed their old function of granting right of "tasarruf" to state land and, moreover, their right to supervise the cultivators' work was almost terminated. Two restrictions remained. First, the occupier of Emiri land had no right to effect any permanent improvement on the land without permission of the authorities. Second, the land would automatically revert to the state if left uncultivated, without justification, for three successive years.[3] In spite of the absence of a cadastral survey, the mere possession of official titles to their lands, regardless of their flimsy basis, gave security and sense of ownership to occupiers that reflected advantageously on land improvement and reclamations.

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[1]Paul J. Klat, "The Origins of Land Ownership in Syria", Middle East Economic Papers, 1958, p. 57.

[2]Ibid., p. 58.

[3]By 1913 the first restriction was abolished - Decree No. 5 of Gemadi al-Awal 1331 - which held that Miri land occupiers had a lease of indefinite duration. Therefore, the distinction between Miri and Mulk land, for all practical reasons, disappeared except for the second restriction.

3. French Mandate:

In 1930 decree No. 3339 (Code de la Propriete) was promulgated by the French High Comissioner. The objective was to regulate the rights of immovable property. The land was divided into the following categories:

(1) Mulk - absolute power of ownership and disposition.

(2) Miri land - ownership resides in the State but utilization is vested in private individuals who can, "sell, mortgage or lease the property but he cannot convert it into Wakf except with consent of the State."[1] An important stipulation was that if a holder of Miri land did not cultivate the land for five successive years, the land would revert to the State.

(3) Matrukah Muraffaqah - (left over and unprotected land) - lands used by a village or a town such as threshing floors, pastures, etc.

(4) Matrukah - Mahmiyah - (left over but protected) land for public use, i.e., roads, public cemeteries, etc.

(5) Khaliyah - Mubahah - (vacant and dead land) - they are considered Miri lands and can be occupied and utilized upon State consent.[2]

A cadastral survey was carried out in the settled regions (Aleppo, Hama and Homs) and by 1943, 3,544,883 hectares were surveyed and registered.[3] It had the effect of giving security to holders of land titles and the breaking-up of Musha holdings. Nevertheless, due to political reasons, the so called "desert Bedouin boundaries" decree was passed and consequently extensive sparsely populated fertile land became the property of Bedouin Sheiks.[4]

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[1]Said Himadeh, Economic Organization of Syria, Beirut: American Press, 1936, p. 53.

[2]Ibid., pp. 54-55.

[3]Doreen Warriner, Land Reform and Development in Middle East, London: Royal Institute of International Affairs, 1957, p. 97.

[4]The State domains comprise (a) public property not subject to sale,

This has been the basis of the pattern of landowmership that developed in Jezira.

4. Independence:

When Syria became an independent country, the cadastaral survey was terminated allegedly due to lack of funds and necessary trained staff but mainly because influential notables were adding to their lands by encroaching on unregistered lands. The attemps of Adib Shishakli (decrees No. 96 and 135 of 1952) to put an end to illegal claims on state land on the one hand and to carry out the provisions concerning land distribution as was laid down in the constitution[1] of 1950 on the other, did not bear fruits for the simple reason that the area and boundaries of State domains were unknown. The resumption of the cadastral survey to solve this problem was plagued with inefficiency and interruption and as such no important accomplishments were effected. By the end of 1962, the total surveyed agricultural land was 5,523,567 hectares while 6,481,565 hectares were not as yet surveyed (see Table 14).

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i.e., public buildings, roads, etc. (b) State domains (rural) classed into two categories. First, lands registered in the name of the State and which were originally property of Sultan Abdul Hamid ("Saniya" lands). By virtue of Lausanne Treaty (art. 60) each country which was part of the Ottoman Empire was given right to annex "Saniya" lands that laid within its boundaries. Second according to Moslem law, the title of all occupied but unregistered lands plus unoccupied and uncultivated lands belonged to the state. If a person had brought previously uncultivated land under cultivation he was entitled to own it provided he was able to prove a ten year period of cultivation (art. 19 of decree No. 3339). The State lands were utilized through one of these channels (a) by lease, (b) by lease and a future promise of sale, (c) by sale.

[1]Article 22 of the Constitution stipulated for setting of a maximum ceiling of land ownership without a retroactive effect. See, United Nations, Economic Development of the Middle East, 1951-52, New York: Department of Economic Affairs, 1953, p. 26.

TABLE 14

EXTENT OF LAND SURVEYED AS AT THE END OF 1962 - BY MOHAFAZA (IN HECTARES)

Mohafaza	Area Included in the Survey Program		Area not Included in the Survey Program	Total Area
	Not Yet Surveyed	Surveyed		
Damascus	541,085	508,262	1,103,408	1,952,753
Homs	205,725	1,047,115	2,966,160	4,219,000
Hama	149,962	673,503	8,720	832,185
Latakia	241,331	167,918	44,751	454,000
Aleppo	657,574	956,610	-	1,614,184
Idleb	230,869	396,895	-	627,764
Hasakeh	557,856	1,779,229	-	2,337,085
Deir-ez-Zor	1,926,137	9,463	1,370,400	3,306,000
Ar-Rashid	1,355,988	9,412	834,600	2,200,000
Sweida	369,985	15	185,000	555,000
Dar'a	244,855	175,145	-	420,000
Grand Total	6,481,365	5,523,567	6,513,039	18,517,971

Source: Syrian Arab Republic, Ministry of Planning, Statistical Abstract, 1962.

The total of unsurveyed lands in the three provinces of Deir-ez-Zor, Ar-Rashid, and Hasakeh, amount to 3,839,981 hectares; 60% of total unsurveyed land. This situation has encouraged encroachment on state lands and resulted in endless disputes between owners of land over boundaries.

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TABLE 15

RELATIVE IMPORTANCE OF DIFFERENT CATEGORIES OF LAND IN SYRIA

Category	Area (Sq. Km.)	% of Total Area	% of Occupied Area	% of Agricultural Area
Private (Mulk Land)	1250	.67	1.57	2.39
State Land				
1. Unoccupied	106022	57.13	-	-
2. Occupied				
a. Miri	39644	21.36	49.82	73.00
b. Matrukeh	25334	13.64	31.84	-
c. Private Domain	13430	7.2	16.77	24.61
Grand Total	185680	100		
Occupied Area	79581		100	
Agricultural Area	54245		100	100

Source: Paul J. Klat, "The Origins of Land Ownership in Syria", op.cit., p. 64.

The most striking aspect in Table "15" is that only 2.39% of agricultural land is owned privately. The rest is theoretically state owned but for all practical reasons a good portion of state land can be regarded as privately owned, since the right of utilization resides in the occupier and, as mentioned earlier, the distinction between utilization (Tasarruf) and title of state land have withered away.

A discussion and evaluation of land categories and ownership cannot be complete if not supplemented by an analysis of the main formsof agricultural tenancy practiced in Syria.

These are the following:

a. Land cultivated by owner-operator

b. Land cultivated under share-cropping arrangements

c. Land cultivated on commercial basis

d. Land rented for cash.

These classifications can prove somewhat arbitrary, since conceibably one or more forms of tenancy can take place on the same form. Nevertheless, in all cases, the effect of agricultural tenancy on the proper utilization of land depends on its creating the ability and desire to save and invest and encourage the proper organization of factors of production so as to eliminate waste and maximize production.

a. Land Cultivated by Owner-Operator:

Both functions of decision making and control reside in the owner of the farm. Usually, in Syria, the farm is small and is worked by the whole family with the help of some rudimentary agricultural implements. The owner may also keep some farm animals if adequate pasture or fodder can be secured. It is held by some writers that this constitutes the best form of agricultural tenancy for underdeveloped countries because of its advantageous effect on the desire and willingness to work, save and invest.[1] This may be true in Syria subject to two strictures: First, the land should be irrigated or enjoy good rainfall (400 mm. and above) because in dry farming the limiting

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[1]George Hakim, "Land Tenure Reform", Middle East Economic Papers, 1954, p. 84.

factor of production is the amount and pattern of rainfall. No matter how industrious the owner may be he would find himself, out of necessity, an easy victim of money lenders in a year of scanty rainfall. Second, the owner-operator in Syria is usually an uneducated poor peasant who lacks modern equipment and a sense of economic rationality. It is important that government cooperatives, staffed with capable personnel, be established to perform a group of related functions. These include the selection of a suitable rotation cycle and the most economic crops to cultivate in light of cost-return ratio studies. To pool the financial resources of the members, and if not adequate to extend long-term credit, to buy necessary equipment to cultivate and harvest the lands of members. Finally, to market the produce.

b. Share-Cropping:

This has been, by far, the most prevelant system of agricultural tenancy practiced in Syria. The share of the cultivator from the land depends on whether he contributes his labor or more. In the irrigated cotton areas in Homs, Hama and Aleppo, he usually gets one fourth of the produce in exchange for his labor only. In dry farming, the peasant received up to 70% of the produce if the landlord provides the land only.[1] The incentive of the cultivator to improve the land under share-cropping is weak since the major portion of the benefits that accrue as a result of improvement are reaped by the landlord rather than by the tenant. On the other hand, a usually absentee landlord is not interested in investing in the land. What aggravated the situation was the absence of a legal contract defining the terms of tenancy

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[1]The agricultural Labor Law (decree No 134 of 4 September 1958) reduced the share of the landlord to 20% of the produce.

between the tenant and the landlord. The will of the latter was supreme in deciding when to terminate the tenure of the tenant without any indemnity.[1] With all its evils, it should be remembered that the share-cropping system is only a reflection and the result of adjustment in face of nature's vagaries. In the absence of a government that would help him in time of distress, the peasant was forced to rely on an institution for protection and finance. This is the essential basis of feudatory relations. The landlord-tenant institutional set up, with different modifications, seems to have been present at one time or another in most countries that have experienced a process of development.

c. Land Cultivated on Commercial Basis.

Generally, in underdeveloped countries, there exist two kinds of agricultural organizations. First, is the commercial type of farming and second the semi-commercial and subsistence farms. The characteristics of the first type are (1) Production is market-oriented, (2) The goal is maximization of profit, implying that changes in production decisions are effected only whenever there is a chance to augment net income, (3) non-farm inputs provide the bulk of the resources used[2], (4) cultivation should be directed by the land holder, be it individual or corporate, who controls the labor of the cultivators and assumes the financial risks.[3] Whenever a favorable cost-

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[1]Said Himadeh, "The effect of Land Tenure on the Utilization and Production of Land in the Middle East," Al-Abhath, vol. 9, No.1, March, 1956, pp. 10-15.

[2]Sherman E. Johnson, "Technical Peculiarities of Agricultural Supply", Indian Journal of Agricultural Economics, vol. 13, No. 4, 1958, p. 30.

[3]I.C. Greaves, Modern Production among Backward Peoples, London: George Allen and Unwin Ltd., 1935, p. 69.

price relationship exists, the tendency to increase total output and/or cultivated area manifests itself. This encourages the adoption of techniques that have decreasing cost per unit as output expands.

Large scale farming in the above sense is of recent origin in Syria - having appeared after the second World War. The main development along these lines gained importance especially in the north eastern regions. In the settled regions, and particularly in the Homs-Hama-Aleppo plain some enterprising landlords invested what money they had in the purchase of pumps to irrigate the land and more often borrowed to finance the investment. In Jezira, neither the lot of the bedouin nor the peasant improved considerably since the former was driven out from his traditional grazing areas while the latter was caught disadvantageously between the merchant-tractorists, the Sheik and the pump owners. In the settled regions the landowner now assumed the task of providing seeds, water and tractor while the peasant contributed labor on a 75/25 split basis.

d. Land Rented for Cash.

The cultivator of the land pays a definite annual sum of money to the landowner irrespective of the yield. In Syria, this practice has been of limited scope and when present it is found on irrigated or irrigable land.[1] In rain-fed land, the fear of inadequate rainfall encourages the share-cropping method because the element of risk is spread between the owner and cultivator. The longer the term of contract the more effort the

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[1] In some cases the land owner was unable or unwilling to tap funds to irrigate his land. He would lease the land for a fixed annual sum of money on condition that the tenant would irrigate and exploit the land usually for 5-8 years. Upon the termination of the contract the landowner would buy the installed equipment at present value.

cultivator would exert to improve the land since a large part of the resulting increase in income would be absorbed by him.

Our brief survey of the origins and development of the system of land ownership in Syria together with a glimpse at the main forms of agricultural tenancy show that neither under the French Mandate nor after independence did the authorities try effectively to enforce some of the progressive articles that have been embodied in decree No. 3339 of 1930 or in the Constitution of 1950. The State's agricultural lands, under the French Mandate, not to mention the Ottoman Empire, suffered from illegal encroachment by tribal Sheiks, influential landlords and notables, and extensive fertile areas passed into their hands. It was easy to forge documents with the help of unscrupulous Mukhtars and judges to prove a ten year period of continuous cultivation on the claimed land. On the other hand, no case is heard of where land reverted to the State because it was not cultivated for five successive years. The cadastral survey gave legality to titles of the owners to land acquired through these means. The big landholdings were often owned by absentee landlords while the holdings of the tribal Sheiks, before the opening of Jezira, were left as pastures. No law organized and delimited the abosolute powers of the landowner to dismiss the tenant at will. Since, the improvement of agricultural standards depends greatly on the security of tenure and the firm belief of the cultivator that it is worthwhile to improve the land, these conditions did not encourage extensive improvements.

It seems that the landlord possessed both the political and economic power in the country with the result that any person or organization that harbored reforms repugnant to their interests automatically was fought

bitterly and to the end. "The alliance of property-owning classes controlling the destinies of most underdeveloped countries, cannot be expected to design and to execute a set of measures turning counter to each and all of their immediate vested interests. If to appease the restive public, blueprints of progressive measures such as agrarian reform, equitable tax legislation, etc., are officially announced, their enforcement is willfully sabotaged."[1]

C. Land Reform

One of the first fruits of the unity of Syria and Egypt in 1958 was the promulgation of two important laws that affected the whole agrarian structure of Syria. First, law No. 134 was passed on the 4th of September 1958 to regulate the relations between landlords and tenants and agricultural workers.[2]

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[1] P. Baran, "On the Political Economy of Backwardness," The Economics of Underdevelopment, ed., A.N. Agrawala and S.P. Singh, London: Oxford University Press, 1958, p. 88.

[2] The main provision of Law No. 134 are the following:

(a) Contracts should be written and not based on verbal agreement.
(b) The owner cannot terminate the contract except under certain conditions as prescribed in the law. Otherwise, the contract is renewable automatically every year.
(c) The maximum share of landowner in non-irrigated land is 20% of toal produce if he supplies the land only. In irrigated land it is between 20-33% depending on whether it is flow or pump irrigated.
(d) If the landowner provides more than the land then his share increases in accordance with the type and degree of his contribution.
(e) If the agricultural tenancy is on cash basis, the landlord is entitled only to what would have been his share under share-cropping. See, U.A.R., Syrian Region, Collection of Laws and Regulations, Damascus: Government Press, No. 9, September 1958, pp. 1283-1322.

Second, Law No. 161 was passed on the 27th of September 1958 setting a maximum limit to the ownership of agricultural land.[1]

1. Objectives

The objectives of land reform were:

a. The redistribution of expropriated land in small plots among the landless peasants.

b. "To increase and improve agricultural production."[2]

c. To end the political, social and economic corruption manifested in feudalism.

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[1]The main provisions of Law No. 161 are the following:

(a) Maximum limit of landownership is 80 hectares in irrigated lands or orchards, or 500 hectares in rainfed land. The owner may bequeath up to 10 hectares of irrigated land or 40 hectares of rainfed to each of his three children (modified later to include all children).

(b) The law had a retroactive effect back to 1950.

(c) Compensation is equal to ten times the average rental value of land, payable in 15 year installments.

Ibid., pp. 1348-1358.

Following the secession of Syria from U.A.R. (28 September 1961), Law 161 was drastically modified by Law No. 5 (20 February 1962). However, on March 1962, following a successful Coup d'etat that dislodged the government from power, Law No. 2 (2 May 1962) was enacted re-establishing the provisions of Law No. 161 with minor modifications. Still, in 1963, important modifications were added to Law No. 161 decreasing the maximum allowed limit of agricultural land ownership from 80 hectares in irrigated land to 40 hectares, except in the Ghoutta (15 hectares), and from 500 hectares in rainfed to 80-140 hectares depending on the rainfall zone.

2. Effects.

From the social and political viewpoints, one can hardly raise an argument against the law. The landlord utilized two effective weapons to keep the peasant in docility and submissiveness. First, with no law, until recently, regulating the terms of tenancy and the power of the landlord to drive him out, the fellah was always fearful lest the power be used against him. Second, the landlord, through bribery and political influence, utilized the corrupted gendermarie to cut to size anyone who questioned their powers in the villages. The absence of secret balloting, before 1954, forced the fellah to vote for anyone favored by the landlord. In short, the power of the landlord stemmed largely from his control of the land.

From an economic viewpoint, assuming even an arbitrary separation of political, social and economic factors is possible, some questions can be raised concerning the possible future effects of land reform on the desire and willingness to work, save, and invest. In general, if land reform releases or increases the productive energies of the peasants, resulting in an increase of agricultural production and the real per capita income of the rural population, then such a reform would have imparted favorable effects. The layman in underdeveloped countries is usually prejudiced in favor of the view that land reform per se is beneficial and the harder it hits the landlord the better. This may not be the case. In Mexico, for example, the peasants, as a result of land reform, increased their consumption rather than increasing or improving their agricultural production.[1] Many reforms fail not only in the short-run but also in the long-run because of improper timing

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[1] F.A.O., Inter-Relationship between Agrarian Reform and Agricultural Development, Rome, 1953, p. 34.

or the lack of complementary facilities, such as credit extension, or cooperatives to replace the landlord's institutional set-up. Thus, reforms that are motivated by political expediency or propaganda may at best contribute to a temporary amelioration of social conditions with no effect on production. A land distribution program can produce favorable effects if the following points were sufficiently considered:

1. The efficiency[1] of land exploitation prior to land reform particularly under extensive cultivation and the chances open to increased efficiency after the initiation of the program.

2. The effect of land redistribution on the living standards of the peasants.

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[1]"The concept efficiency is applicable to different input-output relationships depending upon the conditions set by the problem. In a certain "technical" setting it may be employed to determine, for example, how to produce the most corn on an acre of land regardless of the cost of inputs, the objective being to find the combinations of inputs that produce the largest yield of corn and this would represent "maximum efficiency" in in such a context. Still another formulation... has as its goal the task of determining how to produce (achieve) the largest social product in the economy as a whole, given the existing cost and utility patterns. When all resources in the economy are allocated so that no further gain can be achieved by an additional transfer of a factor or a product from one use to another use, "maximum economic efficiency" is achieved. This would represent the ideal, the general (optimum) equilibrium of economic analysis". See, Theodore W. Schultz, Production and Welfare of Agriculture, New York: Macmillan Co., 1950, p. 51.

Hence the meaning and measurement of efficiency depend on the problem, objectives and methodology. We can say, in general, that efficiency is increased whenever a larger output can be produced with the same inputs or the same output can be produced with less inputs.

3. "Whether the new holdings will be of economic size in accordance with the potential productivity of the land, the completed or intended improvements, the type of farming intended, and the working capacity of the individual family which occupy the land."[1]

4. The necessary complementarities of technical assistance, credit facilities, transportation and education facilities to ensure a workable program.

The expropriated land in Syria plus the state domain[2] comprise 56% of total cultivated land in Syria. The importance of proper execution of measures that would secure efficient utilization of the land after redistribution and its effect on the future economic development of Syria is obvious.

TABLE 16

LANDS SUBJECT TO EXPROPRIATION ACCORDING TO AGRARIAN LAND REFORM LAW (IN HECTARES)*

Muhafaza	No.of Owners	Irrigated	Non-Irrigated	Non-Cultivated	Total
Damascus	146	5,996	57,545	31,384	74,925
Homs	201	2,555	115,803	5,197	123,555
Hama	250	6,665	82,987	2,526	92,178
Latakia	51	1,174	5,554	-	6,728
Idleb	-	8,256	90,724	2,577	101,557
Aleppo	612[a]	4,653	145,845	10,512	161,010
Al-Rakka	879[b]	50,820	251,098	45,158	305,076
Deir-ez-Zor	-	13,147	24,932	17,241	55,320
Hasakeh	1,065	19,465	554,410	6,071	579,890
Sweida	11	-	1,791	-	1,791
Dar'a	27	1,606	31,976	8,251	41,833
Total	3,240	94,113	1,322,665	126,865	1,543,643

Source: Syria, Statistical Abstract, 1962.

*According to Law No. 161 of 1958.

[a]Includes Idleb and Aleppo.

[b]Includes Al-Rakka and Deir-ez-Zor.

[1]F.A.O., Inter-Relationship between Agrarian Reform and Agricultural Development, op.cit., p. 38.

The excess land was to be taken by the Ministry of Agrarian Reform within five years and to be distributed among landless tenants, bedouins and agricultural laborers in plots not exceeding eight hectares of irrigated land or 30-45 hectares of rainfed land. Size per se does not determine efficiency. More important is the presence of a "workable unit" which may be a collective farm covering thousands of hectares or small holdings linked by a cooperative. In Jezira, where extensive methods of cultivation are practiced and where large investments have been incurred, the expropriation and division of land into small plots may not be conducive to increased production. On the other hand, in Dar'a and Sweida where large ownership in the first place was practically non-existent (see Table 16) the problems are those of population pressure and paucity of water resources rather than size of holding. The initiation of cooperatives and a ceiling on rents, can ameliorate conditions but evidently would not solve other important problems.

Second, the prematurely applied land reform[1] brought about drastic institutional changes in the organization of production in the agricultural sector. The ex-land owners who were forced to withdraw from their lands were not replaced by a more or at least comparable efficient institution. The farmers were given the land but they lacked capital, technical advice and the firm supervision of the landlords.[2] It is doubtful whether the government with its limited

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[1] Land reform does not mean only the expropriation of large land holdings and their redistribution but also "...refers to the full range of measures that may or should be taken to improve the structure or relations among men with respect to their rights in land." See, Philip M. Raup, "The Contribution of Land Reforms to Agricultural Development: An Analytical Framework" Economic Development and Cultural Change, vol. 12, No. 1, October 1963, p. 5.

[2] Muhammad Diab "The Economic System of the U.A.R, Where is it Going?" Middle East Forum, Vol. 37, June 1961, p. 18.

budget can assume the role of these entrepreneurs in supplying the Syrian agriculture with the capital it needs.[1]

It is important here to differentiate between the short-term and long-term implications of land reform to the rate of private capital formation in the agricultural sector and consequently to the future rate of Syrian economic development. The short term period may be looked at as a transitory period during which levels of production may not improve because of the unpreparedness of the illiterate peasant beneficiaries to assume successfully the managerial functions that go with private property and the inability of the government to move rapidly and decisively against the obstacles facing the peasants. This is especially true of Syria where the political instability has resulted in a high turnover of policy making personnel in the different ministries.

In the long run, the contribution of land reform to economic development depends largely not only on the removal of obstacles, like credit, marketing, etc., but, more important, on the promotion of a new climate of expectation which would affect the peasant's (a) allocation of money income, (b) allocation of family labor time.[2]

In terms of money income,[3] the new owner can undertake investments of

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[1] Salah Dabbagh, "Agrarian Reform in Syria," M.E.E.P., 1962, p. 7.

[2] Philip M. Raup, "The Contribution of Land Reform to Agricultural Development: An Analytical Framework," op.cit., p. 9.

[3] If we assume the average rent of land to be X, thenthe annual installment that has to be paid by the new owner, in Syria, would equal to:

$$\frac{10X}{40} + \left[\left\{\frac{10X}{40} \times \frac{1.5}{100}\right\}\left\{\frac{40(1+40)}{2}\right\}\right] \div 40$$ Annual rate of interest of 1.5% averaged over a period of 40 years.

$$+ \frac{10X}{40} \times \frac{10}{100}$$ (10% of the price)

$$= \frac{10X}{40} + 0.77X + \frac{X}{40}$$

$$= \frac{14X}{40}$$

$$= 0.35X$$

Therefore, the annual installment payable equals one third the previous

slow maturity and can afford to balance between the future yields and current consumption. In terms of disposition of family labor, it is important to note that small accretions to farm capital, if carried out on a broad basis can affect standards of production in a deeper and wider manner than, for example, a much publicized government built dam.

Lastly the mere size of the area subject to distribution calls for a very large administrative staff on all levels to distribute the land, organize and run the proposed cooperatives[1] and guide the fellah. Such an organization cannot be quickly built and brought up to a high level of efficiency.

TABLE 17

EXPROPRIATED AND DISTRIBUTED LANDS 1959-62 (IN HECTARES)

	1059		1960		1961		1962			Total as % of Land Sub. to Expro.
	Irrigated	Non-Irrigated	Irrigated	Non-Irrigated	Irrigated	Non-Irrigated	Irrigated	Non-Irrigated	Total	
Expropriated Land	11,577	505,253	8,680	158,888	9,219	123,979	2,347	47,481	867,424	56%
Distributed Land	3,504	33,230	2,445	20,903	7	3,523	4,379	88,006	155,997	10%

Source: Syria, Statistical Abstract, 1962.

Originally, the law provided for the full expropriation of excess land in five years. Both the expropriation and the distribution of excess land have lagged behind schedule. In 1962, 56% of land subject to expropriation was actually expropriated while only 10% was distributed (See Table 17). Even if

[1]The beneficiaries of land reform are required to join the government run cooperatives in their locality.

we take the distributed land as a percent of expropriated land it stood at 17% in 1962. Since, the major portion of land subject to expropriation is rainfed (94%), the establishment of multi-purpose cooperatives is crucial for the realization of higher standards of production or at least maintaining the same standards. "The best procedure open to the non-communist nation wishing to benefit from "big-scale farming with machinery" while enjoying land reform, is to organize cooperatives. This method of organizing agricultural production is difficult and has not proved to be particularly attractive or efficient."[2]

At the end of 1962, the number of agricultural cooperatives run by the Ministry of Land Reform was 193 serving 517 villages with 15,394 members. The successful role of cooperatives in agricultural development depends greatly on the presence of a leadership that can assume the functions of calculation and control which in turn depends on the stage of development the country has achieved. In Syria such rural leadership is missing and as such it adds to the administrative burdens that have to be shouldered by the state.

D. Land Utilization, Production, Productivity and Irrigation

Reference has already been made to the deficiency inherent in treating agricultural regions as one homogenous unit. Not only do different regions enjoy or suffer from different benefits or problems but also their contributions in the process of development differ in magnitude and scope.

The ultimate objective of development may be defined as raising the standards of living of the people with the stricture that no group or region

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[1] Richard W. Lindholn, "Analysis of the Land Use and Land Taxation Policies of Non-Communist Underdeveloped Areas," Economic Development & Cultural Change, vol. VII, No. 3, April 1960, p. 225.

should, at least, be worse off than before development took place. However, this definition would ignore the question of even distribution of benefits. Thus, though the quasi-subsistence level of region A may not deteriorate in the process of development yet the thrust of region B, within the same sector, may cause both a relative and absolute spread between the level of living of A and B. This is accentuated in the long run if immobility of factors militates against equalization of factor returns between the two regions. This kind of a situation seems to have taken place in Syria and still is a problem.

The recent agricultural development in Syria has taken place mostly in the so-called new regions, i.e., Jezira and Euphrates and to a lesser extent in some parts of the old regions. This geographical classification is convenient subject to one drawback. The settled regions can actually be divided into: (a) Homes-Hama-Idleb-Aleppo fertile plains, (b) Latakia region, (c) Houran-Jebel-Druze region.

1. Land Utilization.

We shall first give a general picture about the trends in production, land utilization, productivity, and irrigation in Syria then proceed to consider the regions separately.

In trying to assess the potential contribution of agricultural land resources, the major elements to consider are (a) the extent of cultivated and potentially cultivable land, (b) the productivity of the land.[1] As far as productivity is concerned, the advance in science had the effect of decreasing the importance of land in terms of area due to the increased importance of the

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[1]Alfred Bonne, "The resources and their Potentials - Land," Middle East Resources - Problems and Prospects, ed. Harvey P. Hall, Washington, D.C.: The Middle East Institute, 1954, p. 28.

inputs that could be added to land and that would change its yield per hectare and/or the possibility of transforming rain-fed lands into irrigated land which means a higher capital outlay and/or a greater labor input per unit of land. Both these measures can affect the productivity of land and consequently its capacity to sustain a larger population at the same standards or the same population at higher standards.

TABLE 18

SYRIA: LAND AREA ACCORDING TO UTILIZATION FOR SELECTED YEARS
(000 HECTS.)

Type of Land	1948	1950	1952	1954	1956	1958	1960	1962
1. Total Area (2+5)	18,134	18,248	18,277	18,448	18,448	18,448	18,448	18,481
2. Cultivable Land (3+4)	6,099	7,367	6,225	6,956	7,108	8,113	8,054	8,157
3. Cultivated Land	2,419	3,490	3,485	4,054	4,590	5,452	6,014	6,263
a. Irrigated	318	395	492	513	682	590	527	657
b. Non-Irrigaged	2,101	3,095	2,993	3,521	3,908	4,862	5,487	5,606
4. Uncultivated Land	3,680	3,897	3,140	2,922	2,518	2,661	2,040	1,874
5. Uncultivable Land	12,035	10,881	11,652	11,492	11,340	10,335	10,394	10,344
a. Forests	356	422	405	449	449	449	452	455
b. Pastures	2,772	5,651	6,400	6,309	6,267	5,390	6,552	6,643
c. Miscellaneous	8,907	4,808	4,847	4,734	4,624	4,496	3,410	3,246

Source: Syria, Statistical Abstracts, (Issues 1949, 1952, 1954, 1956, 1958, 1960, and 1962.)

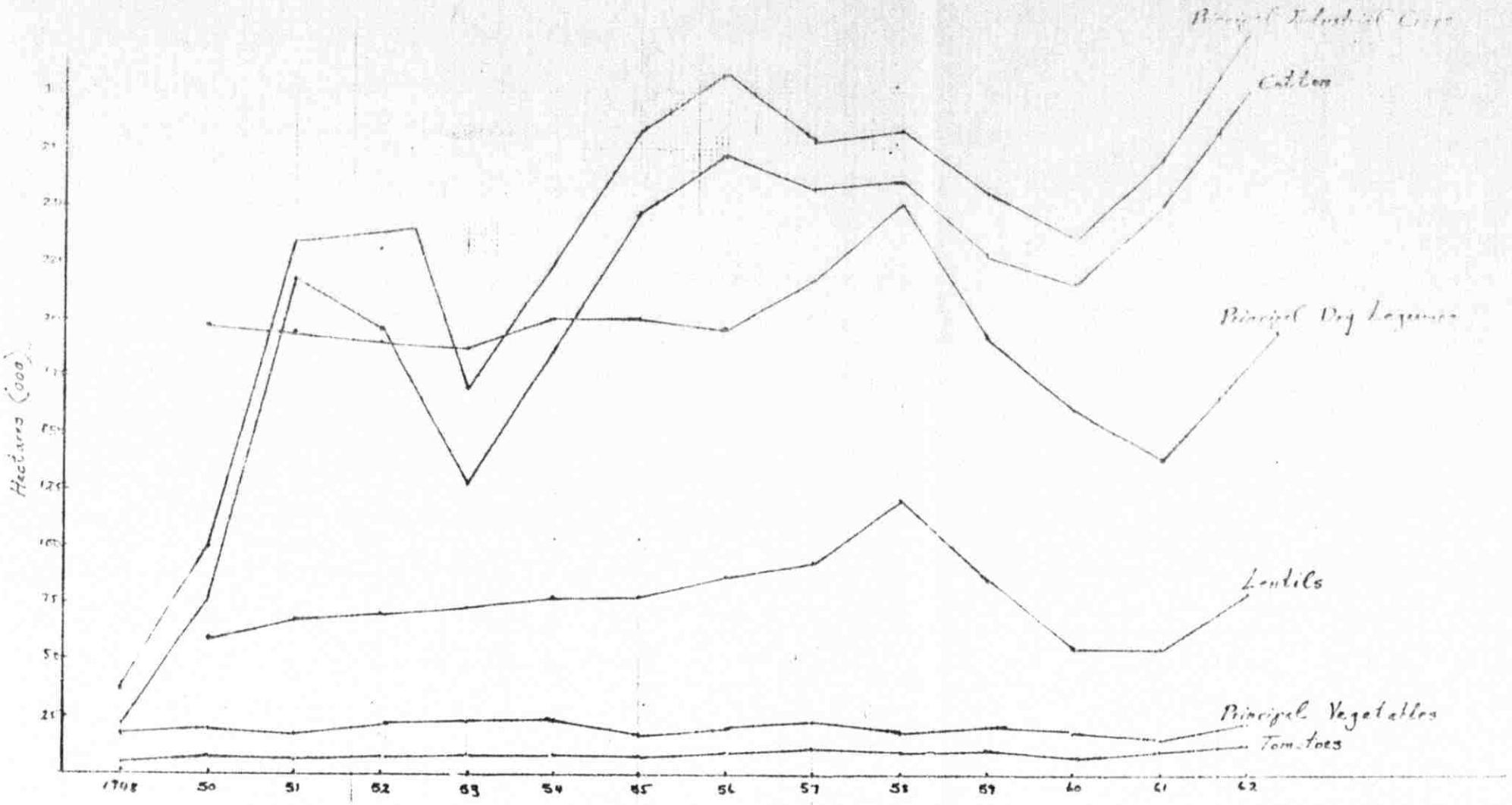
The cultivable land in Syria constitutes approximately 40% of total area (See Table 18). The rest is desert, mountains, forests and pastures. The evolution of land utilization in Syria has been characterized by an extension

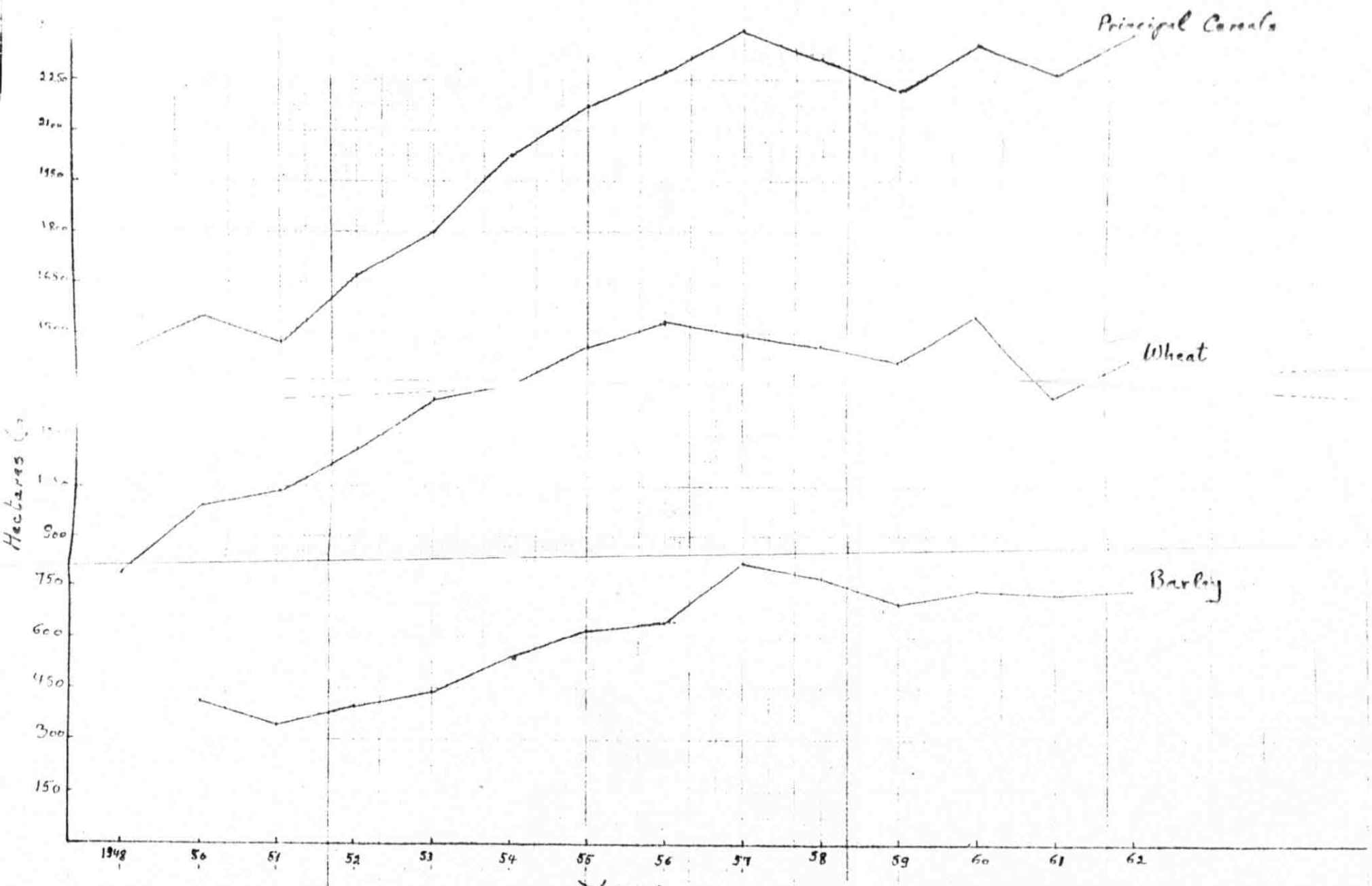
of the cultivated area, in general, and a spectacular doubling of the irrigated area between 1948 and 1962. The irrigated area reached its maximum in 1956 but as a result of the severe drought of 1958-59 it dropped from 682 thousand hectares in 1956 to 527 thousand hectares in 1960. Most hard hit were the owners of wells and trench irrigated land who saw their little oases in Selamyeh and in the South of Syria again become arid. More interesting, is the rate of increase in the irrigated area. While in 1948 it was 518 thousand hectares, it jumped to 595 (000 hects.) in 1950, 20% increase, then increased further to 492 (000 hects.) in 1952, 24% increase, and in 1954 the percentage increase compared to 1952, was only 4%. Thereafter, the annual rate of increase has fluctuated and the area under perenial irrigation levelled to 550 (000 hects.) by 1962.

The rainfed cultivated area also doubled between 1948 and 1962. Here, the amount and pattern of rainfall are the decisive factors determining production. Few inches of rain, at a certain time, can mean the difference between a good crop or no crop for a given year. A major characteristic of cultivation of rain-fed land is the practice of fallowing half the land to allow it to regain its fertility. When the land is left fallow it is either left unploughed after harvesting the cereal crop until the following year or, as is more common in Syria, is worked under a simple two year rotation with cereals, where the land is ploughed in early winter and sometimes reploughed in spring, in order to destroy the weeds, and then remains bare until it is sown in autumn.

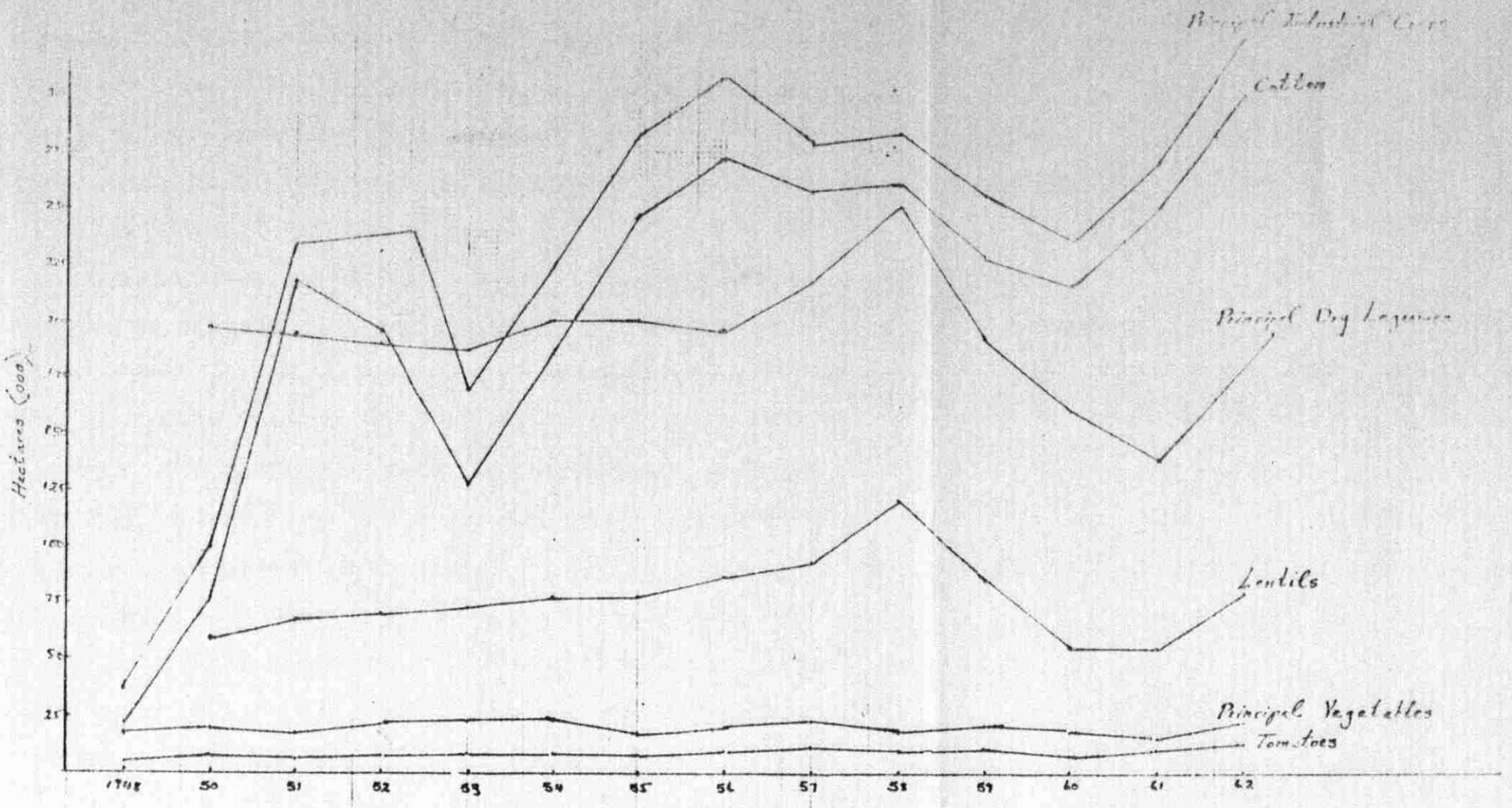
2. Production and Productivity.

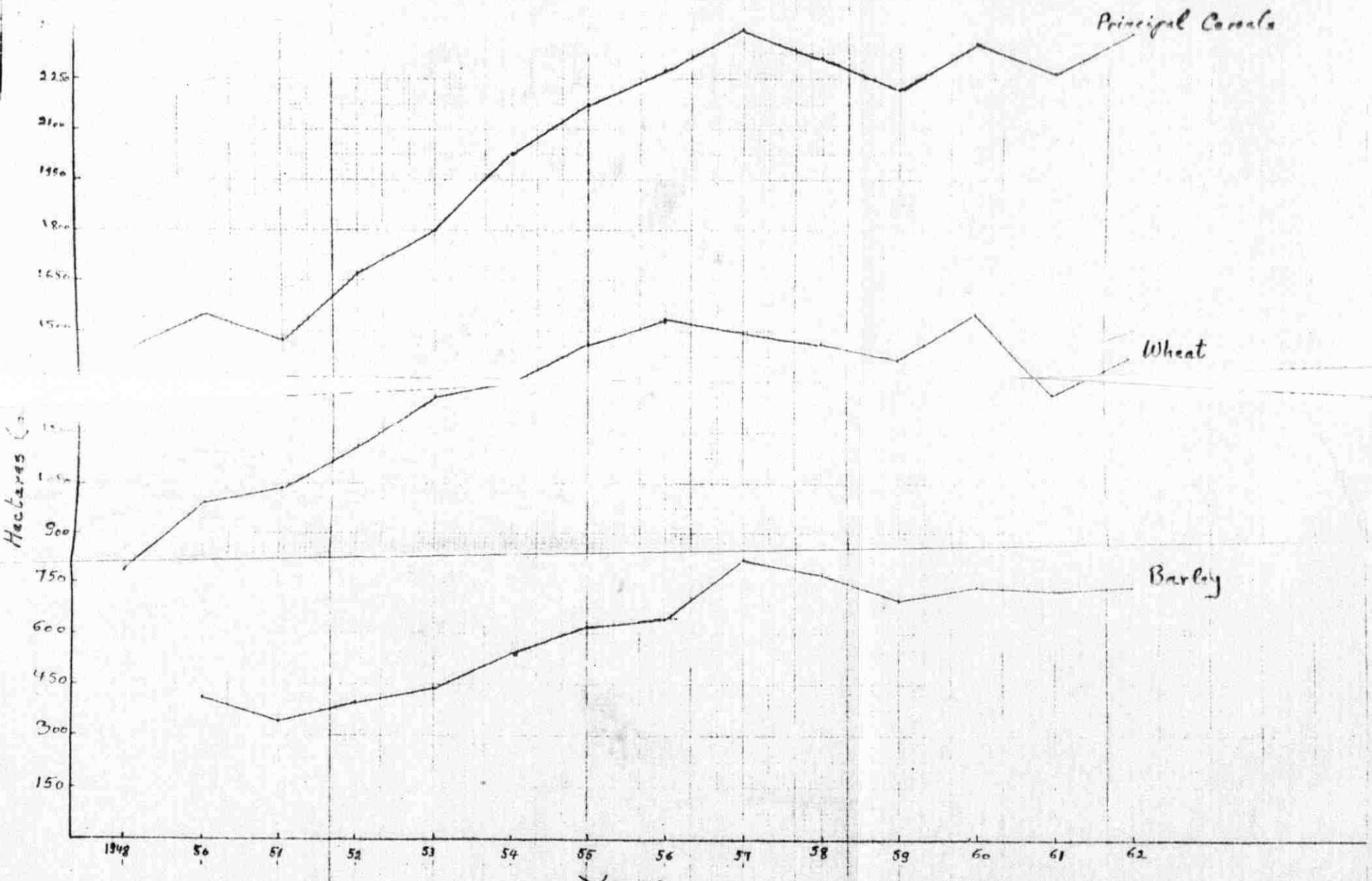
In rain-fed land, the principal crops are wheat and barley while in irrigated land cotton holds an undisputable place of honor. Graph II shows the trend in the area of land devoted to the cultivation of the main groups of





II. Syria: Trends in Cultivated Area of Principal Groups of Crops and Most Important Crop in Each Group 1948, 1950-62





II. Syria: Trends in Cultivated Area of Principal Groups of Crops and Most Important Crop in Each Group 1948, 1950-62

crops and the most important crop in each group. Cereals have accounted for 40-50% of all cultivated land between 1948 and 1950-62. The importance of cereals is both a reflection of the abundance of rain-fed land and its dietary importance to the mass of population. The heavy dependence of cereals on the degree and pattern of rain fall places the agricultural sector, especially the fellah, at the mercy of nature's vagaries. A sizable portion of the agricultural land in Syria lies in the 100-250 mm. rainfall zone.[1] A minimum of well distributed 300 mm. of rainfall is necessary for cereal cultivation. Thus, attempts of energetic entrepreneurs in Jezirah to push cultivation to the 200 mm. zone (South of Hassatche) were met by losses and a subsequent withdrawal. This limit can be overcome only through a judicious utilization of irrigation water resources in the area.

Wheat[2] is the most important crop in the cereal group accounting for 20-30% of all cultivated land and 60-70% of total area under cereal cropping. The severe fluctuations in production aredue to variations in rainfall. Actually one may read a certain pattern of crop failure in Graph III, although it covers a relatively short period. It seems that every four or five years Syria suffers from a crop failure due to climatic conditions, i.e., 1951, 1955 and 1958. The three successive years of severe drought, 1958-60, have been exceptional and are said to have affected the political as well as the economic conditions of the country.

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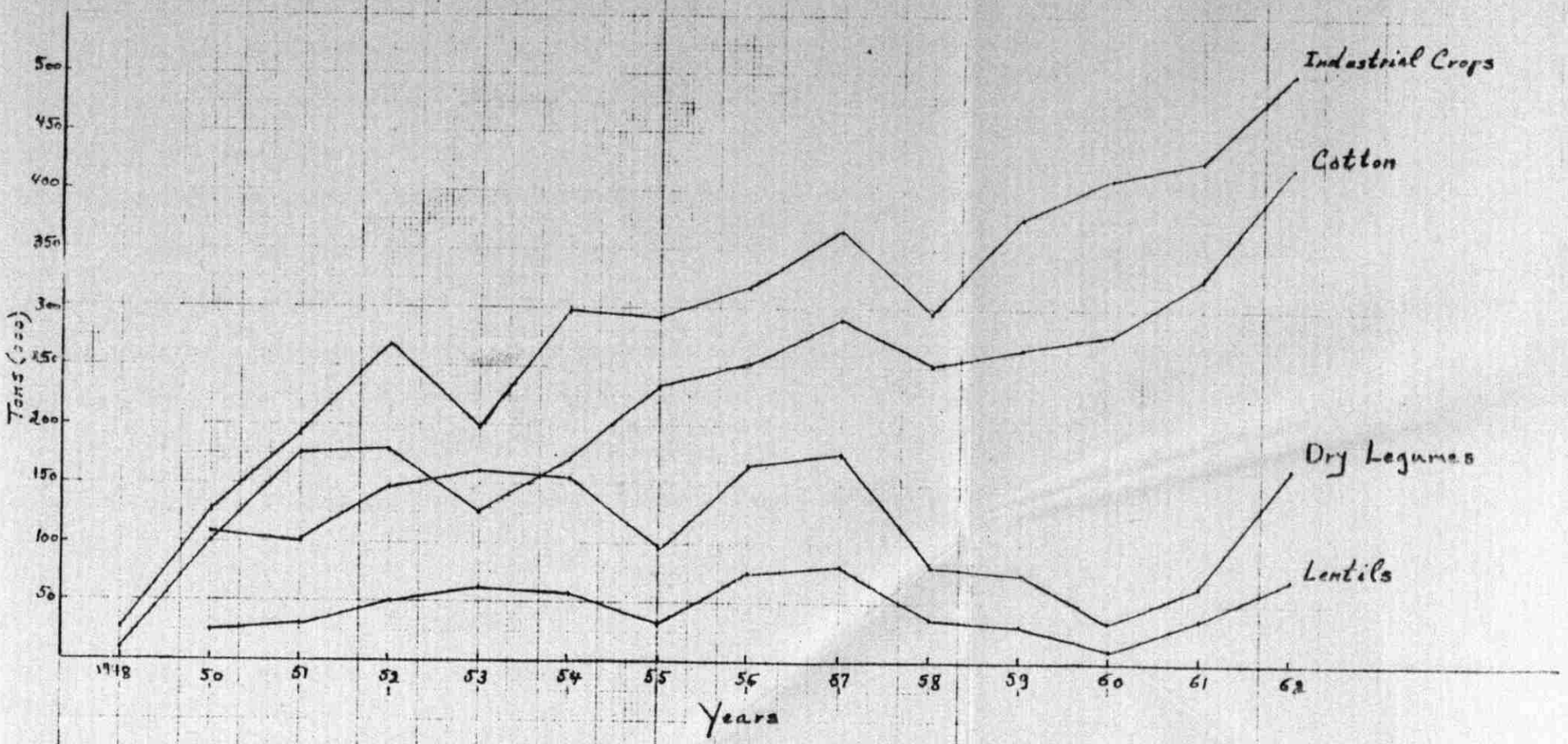
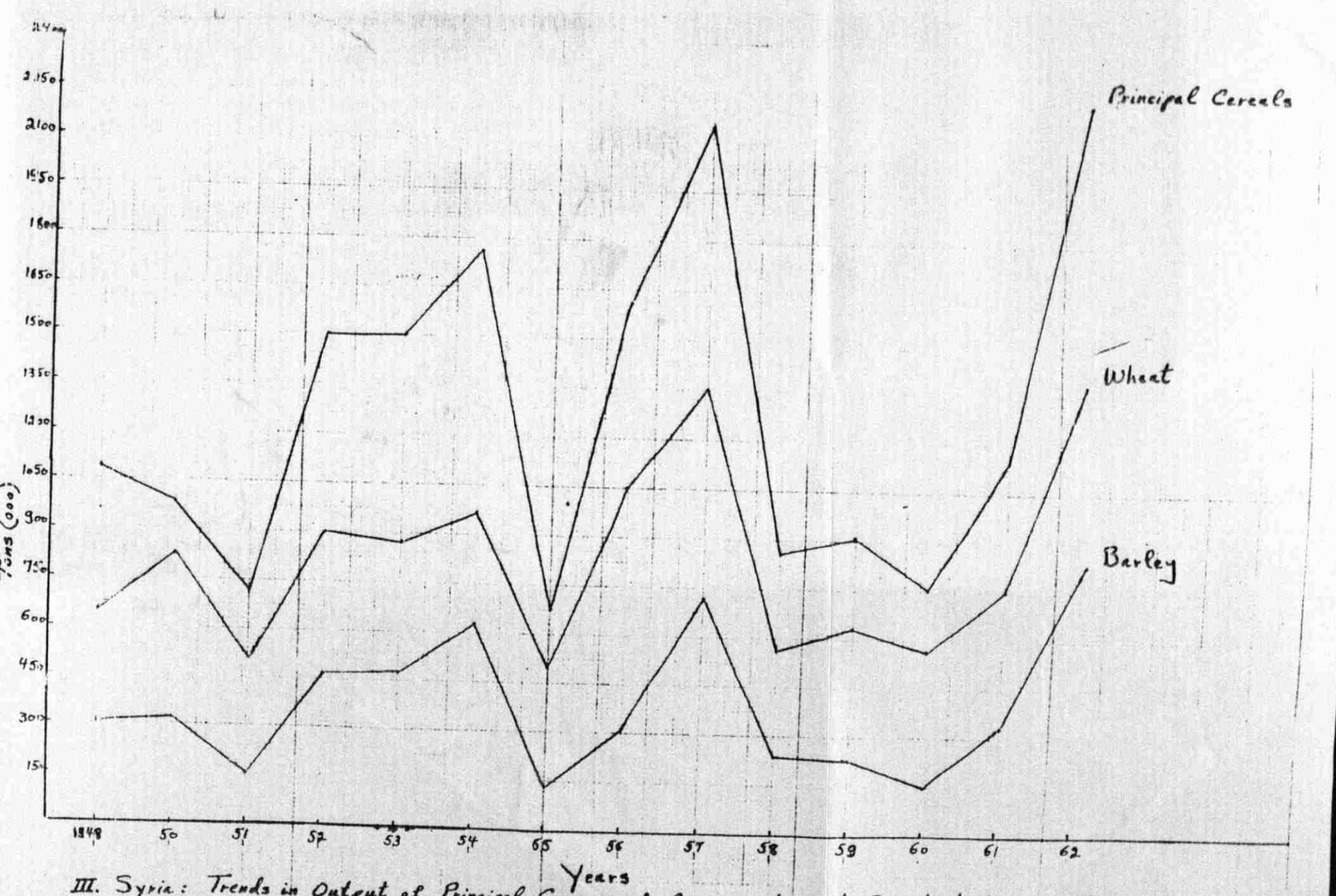
[1]Distribution of Land Area with Respect to Average Annual Rainfall in (000 hects.):

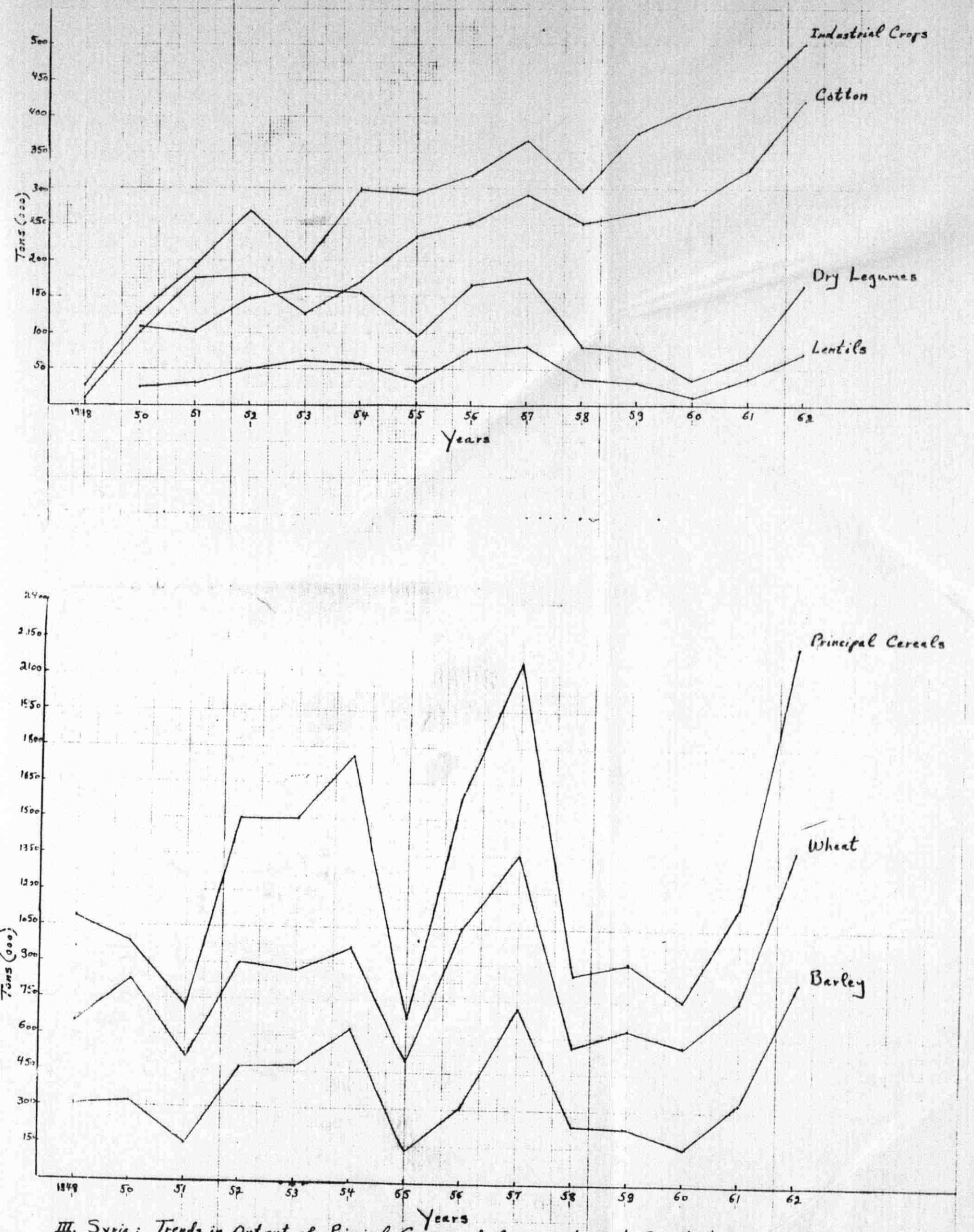
Less than 250 mm.	12481
250 - 350 mm.	2417
350 - 500 mm.	1032
500 - 800 mm.	1693
Over 800 mm.	250

[2]Hard wheat is the dominant type. It is especially suited for industrial use, i.e., in the production of macaroni, pastry, etc.





III. Syria: Trends in Output of Principal Groups of Crops and Most Important Crop in Each Group 1948, 1950-62



III. Syria: Trends in Output of Principal Groups of Crops and Most Important Crop in Each Group 1948, 1950-62

If we relate the evolution of area cultivated with cereals and the trends in production (Graphs II & III) two important points are revealed. First is the heavier fluctuations in output and yield than in cultivated area which is a reflection of the fellah's inability to forecast the amount and pattern of rainfall. The bumper cereal crop of 1957 (2,150,000 tons) was in contrast to 1955 where cereal production stood at 679,000 tons - one third of 1957. Severe drop in output as in 1955 and 1959 transformed a noted cereal producing country like Syria from a net exporter to a net importer of cereals.[1] On the other hand, the fluctuations in area devoted to cereal cultivation have been relatively slight. The peak was reached in 1957 with 2394 thousand hects. of which wheat accounted for 1495 thousand hects. Obviously, the severe fluctuations in production and the relative stability of cereal cropped area reflects adversely, in bad years, on the yield of land per hectare.

TABLE 19

YIELDS OF PRINCIPAL CROPS IN TONS PER HECTARE 1950-62

Crop	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Wheat	.8	.5	.8	.7	.7	.5	.7	.9	.4	.4	.4	.6	1
Barley	.8	.5	1.2	1.1	1.2	.2	.7	.9	.5	.5	.2	.5	1.1
Cotton	1.5	.8	.9	1.0	1.2	.9	.9	1.1	1.0	1.2	1.5	1.5	1.5
Sugar-beet	18.7	15.0	21.1	11.6	1.0	11.6	15.1	18.1	14.2	18.2	25.6	39.0	29.4
Lentils	.5	.5	.8	.9	.8	.5	.9	.8	.5	.4	.2	.6	.9
Bitter vetch	.6	.4	.7	.9	1.0	.6	.8	.8	.5	.4	.2	.5	.7
Tomatoes	7.2	10.6	8.7	7.9	7.9	7.2	7.9	8.4	6.9	8.6	8.8	8.8	8.5

Source: Syria, Statistical Abstracts - (Issues 1950-1962).

[1] In 1955 and 1959, 33,000 and 65,700 tons of wheat and flour were imported respectively. See, Syria, Direction General des Douanes, Statistique du Commerce Exterieur, Damascus: Jamhourya Press, Issue 1956; Republique Arabe Unie, Region Syrienne, Statistique du Commerce Exterieur, Damascus: Jamhourya Press, Issue 1960.

The industrial crops come second in importance. Cotton has accounted for an average area of 85% of total area devoted to industrial crops and an average of nearly 70% of total tonnage produced during 1950-62. The main thrust to the cotton boom came as a result of the Korean War (1950-51) when prices of cotton soared to unprecedented levels.[1] The response was quick on the part of merchants, money lenders and landlords who provided the capital and management of the profitable undertakings. The "white gold" as it came to be called spread into areas unsuitable for cotton cultivation, e.g. South of Syria and Latakia region. The high prices, at first, compensated for low yields[2] but later after 1952 when prices dropped sharply, the Houran and Jebel Druze regions substituted wheat and barley for cotton while in the plains of Aleppo dry cotton farming was resorted to and costly schemes of irrigation were abandoned.[3] Foreign capital, loans, and grants did not contribute significantly to the new activity. Cotton production brought in its wake four main effects. First, was the great increase in the irrigated area. Second, as a labor and capital intensive activity it created new and more remunerative sources of employment and investment in the agricultural sector. Third, the large rise in the price of cotton increased the foreign exchange resources of

TABLE 20

[1]Wholesale Prices of Ginned Cotton and Wheat - 1949-54 (LS./ton)

	1949	1950	1951	1952	1953	1954	1955
Cotton	2360	2970	4510	5010	2420	2680	2350
Wheat	270	210	330	340	270	230	280

[2]Cultivation of rain-fed cotton needs a minimum of 350 mm. rainfall zone. Moreover, yield is more than twice as high on irrigated land as compared to non-irrigated.

[3]United Nations, Economic Development of the Middle East 1945-54, New York; 1955, p. 182.

the country and consequently its ability to import more goods. Fourth, the relative stability in the annual yield of cotton, especially on irrigated land mitigated the effect of the severe fluctuations in the output of cereals. Reference to Graph III shows clearly the importance of cotton as a stabilizing agent during the three successive years of drought of 1958-60.

In 1951, the government established the Cotton Office to provide the farmers with pasteurized seeds and for the extension of technical help to cotton cultivators.[1] The future expansion of cotton production can result from (a) expansion of cultivated land and/or (b) increase in yield per hectare. The first necessitates expansion in irrigated land which probably cannot be shouldered by private initiative without a considerable improvement in the price of cotton.[2] A possible indirect method is better utilization of present water resources. It has been estimated that up to 35% of water can be saved if cotton is planted in furrows rather than by dividing the land into small rectangles (Maskabeh). In 1955, an estimated 30% of cotton land utilized the latter method.[3] The yield per hectare of cotton compares favorably with other cotton producing

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[1]For a review of the role of government up to 1955 in regulating (a) Production and import of cotton seeds, (b) Control of pest and diseases, (c) Organization of cotton cultivation and, (d) grading and export of cotton; see, Aleppo Chamber of Commerce, Bulletin Economique, Aleppo: Dad Press, 1955, pp. 235-248.

[2]The costs of production were estimated in 1955 to be 50 s.p. per kilo on irrigated land while transport and marketing absorbed 20 s.p., leaving 30 s.p. as profit. See, Piere Maamarpachie, "Cotton Export and the Economic Future of Syria," Ibid.; p. 269. Other detailed estimates were made by a cotton expert, Ibrahim Boulos, both on irrigated and rain-fed land. The costs of production on irrigated land were estimated at 910 L.S. per hectare (185 L.S. per hectare on rain-fed land). See, Ibrahim Boulos, "Cotton in Syria - Past and Future", Ibid., (Issue 1956), pp.352-353.

[3]Ibrahim Boulos, "Factors Behind Increased Cotton Production in Syria," Ibid., (Issue 1955), p. 261. Moreover the furrow method saves on seed input but requires greater labor input.

countries. Nevertheless, better and increased use of fertilizers[1] and improved methods of cultivation can result in higher yield standards.

The third group is dry legumes which experienced a disastrous drop in output in 1958-60. Lentils, the main crop in the group, dropped from 77 thousand tons in 1957 to 10 thousand tons in 1960. Partly as a result of a smaller area but mainly because of lower productivity per hectars which dropped from 0.8 ton per hectare in 1957 to 0.2 ton in 1960 - (Table 19).

Lastly, a word about livestock and animal husbandry in Syria. In spite of Syria's potential to become an important producer of livestock and its products, the record in this field has been poor. The livestock industry is primarily based on obsolete methods and carried out by an illiterate poor nomadic population. The cotton boom seems to have absorbed all the entrepreneurial acumen and curiously enough, no modern specialized livestock farms have emerged. The bedouins roam the country with their flocks along centuries-old trodden tracks in search of pastures and suitable weather. The expansion of cultivated land during the last decade encroached on well known pasture spots. In summer, the bedouins' flocks graze the cereal lands after harvest and pay the landlord a fee for the privilege. In good years the bedouin thrive but during years of adverse weather conditions he suffers considerably. There are no shelters to protect his flocks save certain caves. Only recently the number of artesian wells were increased to water the thirsty sheep in the desert. Another noteworthy point, is the absence of modern dairy industry to provide the country with its needs and possibly export any residual.

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[1]Statistical studies revealed that 47% of cotton cultivators use chemical fertilizers. In 1960, the average application of fertilizers were estimated at 140 kgs. of nitrates and 100 kgs. of phosphate per hectare. However, the necessary amount per hectare were estimated to be 600 kgs. of the former and 500 kgs. of the latter. See, U.A.R., Syrian Region, Five Year Syrian Plan, 1960/61 - 1964/65, Damascus: New Press, 1960, p. 74. (In Arabic)

5. Irrigation.

In a country like Syria where the pattern and quantity of rainfall determine directly, in a given year, the fate of the agricultural sector and affects indirectly the whole economy because of the circular flow of income, the expansion of irrigated area is extremely important. In antiquity, Syria sustained a much larger population and was principal granary of the Roman Empire. This was possible because of an intricate system of canals, the remains of which are still used in Solemyh and other localities, that irrigated much of what is desert now.

Estimates of the potential irrigable area in Syria have not been in accord. The I.B.R.D. mission estimated the total irrigable area at 750 (000 hects). The Ten Year Syrian plan of 1958-1967, estimated the need per hectare to be 0.5 liter/second and for six months. This means 7,780 m^3 of water per hectare. Assuming a loss of 15% of water, due to evaporation, two million hectares could be irrigated with the available river water resources.[1]

TABLE 21

RIVER FLOW AND IRRIGABLE AREA UNDER TEN YEAR DEVELOPMENT PLAN

River	Annual Flow (Mill.Cubic Meters)	% of Annual Flow	Irrigated (Hectares)	Irrigable (Hectares)	Increase (Hectares
Euphrates	25,000	83	200,000	800,000	600,000
Khabour	1,700	6	50,000	150,000	100,000
Oronnate	1,000	3	25,000	110,000	85,000
Others	2,300	8	-	40,000	40,000
Total	30,000	100	275,000	1,100,000	825,000

Source: U.A.R., Syrian Region, Program of Economic Development, 1958-1967, Damascus; Government Press, 1958, pp. 165-168.

[1] This means a net increase of approximately 1,500,000 hectares to already irrigated land.

The political instability and the constant shuffling and reshuffling of government employees militated against any advance on the Euphrates dam, even though the technical and economic studies have been completed. The irrigation works of Tar-el-Ula, west of Hama, which were originally scheduled to be completed in 1962 are still lagging. Albeit, the Rasten and Mharde dams have been completed, but the net of canals that would distribute water to Ghab and Tar-el-Ula, are still under construction. Pump irrigated land, in this region, benefited from the dams in that adequate water supply has been secured during the summer for cotton irrigation. The principal programs of irrigation are concentrated in the Homs-Hama, and Jezireh regions. In Southern Syria and to a lesser extent Latakia, Aleppo, and Damascus, the paucity of water resources does not permit any extension of irrigated area that is worthy of mention.

A program of extensive irrigation involves many implications to Syria's future economic development. Most of the irrigated area will be devoted to labor intensive activity, like cotton and vegetables, because of their monetary remuneration. If we assume that a family of 6 persons, on the average, can cope with 5 hectares of irrigated land and net irrigable area 825 (000 hects), then a working force of 990,000 people would be needed to cultivate the new irrigated land. This would probably call forth a transfer of agricultural labor from the congested areas like Latakia, Dara and Deir-ez-Zor, to sparsely populated areas of Homs-Hama-Aleppo-and Jezireh. Second, because of the long gestation period and lumpiness of investment the expansion of irrigated area is going to be shouldered by the public sector. Hence, over and above the problem of securing adequate funds to finance these programs, the government has to combat any inflationary tendencies due to the sizable planned expenditures and the concomitant increase in the purchasing power of the people,

through adequate monetary and fiscal policies. Third, a calculation of cost/return ratios revealed a 38% return on investment as was estimated in the Five Year Syrian Plan.[1] This is by far more than anything experienced in industry. Fourth, the cyclical fluctuations in production and their ill effects on income, employment and balance of payments would be greatly reduced. Fifth, Syria has to pay more attention to external markets because irrigation will nearly double area and output.

On the technical side, irrigation entails the extension of advice and demonstration of proper methods of irrigation because the tendency of the peasant is always to over-irrigate; on the use of fertilizers, since the application of firtilizers on irrigated land is very rewarding and on suitable crop rotations. All these aspects should be recognized and tackled, not to mention complementarities like credit, transport facilities to move the crop quickly and cheaply to destination.

4. Settled Regions.

a. Homs-Hama-Idlib-Aleppo.

These are the most important parts of the settled regions comprising 5,481,544 hectares of cultivable land (41% of all cultivable land) - see Table 22. The prospects for increased production in the future via increase in cultivated area is limited since of total cultivable area in each of Homs, Hama, Idlib and Aleppo, 89%, 84%, 94% and 87% have been respectively brought under cultivation. Any future increase in production has to come either through (a) increased productivity and/or (b) irrigation programs.

The first avenue is particularly promising. It has been often noted that small changes in the implements of the peasant and methods of cultivation,

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[1] U.A.R., Syrian Region, Five Year Syrian Plan 1960/61-1964/65, op.cit., pp. 52-53.

in underdeveloped areas, can bring about a revolution in terms of production. This is true of these regions. More than 94% of the cropped land is rainfed. In 1961, 38% of cultivated land was left fallow. An alternative crop rotation to the cereal fallow, has to take into consideration the amount of rainfall, temperature and soil conditions. It is generally recognized that where rainfall exceeds 400 mm., there is a great possibility of eliminating the fallow, and intensive forms of cultivation could be practiced. Actually a traveler by car on the road of Hama-Aleppo would notice the presence of rainfed cotton cultivation, especially north-west of Khan-Sheikhoun. The area cultivates cotton on furrow basis;-a good method for water conservation. In many of the villages east of Homs and Hama, for example Kokab and Ma'an, the remains of oil presses can still be seen; an evidence that the area was once a field of olive trees. Horticulture can serve a double function in increasing income and effective hours of work per year of the peasant. Before, this rosy picture can be fulfilled many problems have to be solved. First, is the lack of funds available to the peasants to undertake planting of olives and/or pistachio trees.[1] A possible solution is to extend a long-run loans at low rates of interest to interested peasants through their cooperatives in the area. The cooperative officials should supervise the program and extend necessary technical advice and help. Second, strict laws should be laid down to protect the trees from goats, donkeys, etc.

The implements of the peasant are still primitive. East of Homs and Hama, a sparsely populated area, draught animals should be replaced by tractors in preparing the land for the sowing season. Whereas the blades of the tractor can cut as deep as 30 centimeters in the soil, the wooden plough can

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[1] These two trees are very tolerant of dry weather and do not need irrigation. Aleppo is famous for both. In 1950, due to frost, the olive groves of Aleppo were extremely hard hit.

hardly go as deep as 10 centimeters. Moreover, the practice of consuming manure for heating purposes should be tackled. In cotton cultivated areas, the peasants have resorted to the use of cotton wood during winter. The sickle could be replaced by a scythe which can increase the capacity of the worker by many folds. These are few examples of what could be done within the existing state of arts. The existing technology should be supplemented and not supplanted. This would not create a great difficulty for the peasant to absorb and accept these relatively slight changes.[1]

The future of irrigation in this area is not very promising due to the limited river resources. The main rivers are Oronates, Efrien and Kuwaik. The other source of water is, of course, ground water. Reference has already been made to the Rasten and Mharde dams; the first, nearly halfway on the road of Homs-Hama and the second near the town of Mharde (west of Hama). The two dams will irrigate 75,000 hectares.

The fertile plain of the Ghab, which was originally an extensive swamp, has been drained and currently is being cultivated either under rent arrangement or through sale. Being 50,000 hectares in area, the authorities have estimated that it would support 70,000 people (assuming five hectares per family of five persons).[2] The reclaimed area was divided into six categories

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[1]In the pump irrigated village of Shayzar, near Hama, an entrepreneur tried in vain to convince the peasants of the superiority of the furrow system to others in cotton cultivation. He then resorted to demonstrate his point in practice by planting a small area on furrow basis. The yields were greater, but the peasants attributed it to luck and insisted on clinging to what they know best. When asked about the reason behind their refusal, the entrepreneur attributed it to laziness on the part of the peasants. This may be part of the problem but fundamentally it is a glaring example of the clash that could take place between new techniques and normes to which the peasant has been accustomed.

[2]For a detailed description of various stages of the project and a map showing the various areas to be irrigated; see, U.A.R., Syrian Region, Program of Economic Development, 1958-1967, op.cit., p. 200.

according to soil fertility, suitable crop rotation, water need and economic remuneration of the selected crops. The irrigation canals of both the Ghab and Tar-el-Ula, were not completed by the end of 1963. Beside irrigation water, the Rasten and Mharde dams will generate 80.5 thousand kilowats/year which can give a thrust to industries in the area.

The ground water resources of the country have not been thoroughly mapped and estimated. At present 26% of total irrigated land in the region utilizes ground water. Ground water supply depends on the "capital reserve" stored in rocks and the annual portion of rainfall that accumulates. Therefore, it is important that the intake of wells in a certain area do not exceed the average rate of annually stored rainfall or else the "capital reserve" would start depleting. Thus, in areas of low rainfall, east of Homs-Hama & Aleppo, assuming no underground currents, the potential supply of water for irrigation purposes are indeed limited.

b. Dara-Sweida

The two main problems of this area are lack of water resources and over-population. The total cropped area in 1961 was 563,679 hects. - 60% of total cultivated area - while the balance (259,764 hects) were left fallow. Generally, the soil is of poor quality while the irrigated area is only 5985 hects. in Dara and nearly absent in Sweida (See tables 22 and 23). The small owner-operator dominatesthe region and as thus the impact of land reform was nearly unfelt. A number of cooperatives has been established but, as in other regions, it is too early to gauge their contribution. Similar to other rain-fed areas in Syria wheat and barley are the mainstay of this nearly hand-to-mouth economy. The low yields per hectare and agricultural worker have not

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[1]United Nations, Large Scale Ground Water Development, New York: 1960, pp. 6-7.

improved and are most likely to deteriorate in the future as a result of population growth and cultivation of inferior lands.

The most often repeated solution for the maladies of this region involves a transfer of a sizable portion of the agricultural population to Jezireh. Aside from government lack of initiative in encouraging such inter sectoral shift of labor, sociological factors have militated against this tendency in the past and are still to be solved. The region has a sizable Druze population who, like any minority, possess a certain cohesion that result in a rigidity of the members to dissociate themselves from their immediate environment. Seasonal migration is tolerated as evidenced by the inflow of workers from Houran to Beirut where they save what they can and return to their families during summer to help in the harvest. The transfer of excess labor from this region is a necessary condition, if a better standards of production in the region, and a more efficient allocation of resources within the agricultural sector are to be attained.

c. Latakia

The Mohafaza of Latakia is the most densely populated region relative to cultivable land. Even though it is situated in an extremely favorable rainfall zone (over 700 mm.) the total cultivable area does not exceed 250,649 hectares (See Table 22). Most of the cultivable land has been brought under cultivation which leaves a small margin for future expansion of cultivated area. In 1961, the total irrigated area was 15290 hects. The Senn, el-Kabir rivers and springs irrigated 11037 hects. and underground water the balance - 3983 hects. Against these land resources, the F.A.O. experts estimated a disguised unemployment of 56% of total agricultural working force. Here too the immobility of labor creates a serious problem. The Alwaites, like the Druzes are a self contained minority with a distinctive personality

who are not easily motivated to migrate by the presence of a better economic opportunity.

The main crops of Latakia are wheat, lentils, tobbaco and vegetables. It also abounds with olive trees. The most noteworthy recent development has been the increasing importance of citrus cultivation. It is especially suited to the climatic conditions of the region and moreover rewarding in monetary terms. This tendency should be encouraged by the State through adequate technical and marketing help. More intensive types of cultivation, especially vegetables, can absorb greater labor input and result in higher incomes whil green fodder can help to sustain a dairy industry. The ultimate aim is to create activities that could absorbe the largest active labor input. The possibilities are great since the amount of rainfall is very favorable to sustain mixed farming. To protect the forests and horiculture, the goat population should be exterminated. The Latakia region is famous for its forests which should be preserved and if possible expanded, especially on the mountains.

5. New Regions.

The designation of the Rashid, Hasakeh (before 1952 known as Jezireh) and Deir-ez-Zor (before 1952 known as Euphrates) as new regions is merely in reference to the recent development of their agricultural land. Entrepreneurs of Aleppo, lured by an advantageous rise in the prices of cotton in 1950, poured capital and talent into these regions. The total cultivable area is 3,470,472 hects. while the cultivated area was 2,206,662 hects. i.e. 63% of cultivable area. As such, it is the only part of Syria with a sizable reserve of cultivable land that could be brought under cultivation. Given the shortage of labor and abundance of cultivable land in the region, the utilization of tractors, combines, and other mechanical devices for ploughing, sowing

and harvesting became practical and rewarding.[1] The merchant tractorists and pump owners absorbed between them the major portion of the fruits of progress. The peasant's conditions remained in a state of backwardness and poverty.[2]

In the case of cotton, the entrepreneurs imported labourers from western Aleppo who were familiar with cotton cultivation or at least cultivated similar labor intensive crops like vegetables. Most of the labor migration to the new regions has been on a seasonal basis and only a relatively small number took permanent residence.[3]

The importance of these regions stems from the abundance of both water and cultivable land. The irrigated area was 271,666 hects. in 1961, i.e., 46% of the total irrigated area in Syria. More than 93% of the irrigaged area is pump irrigated. The potential irrigable area is indeed promising. The two largest rivers of the country, Euphrates and Khabour, flow in the region. Techenical studies for construction of the Euphrates dam have been completed. The dam is said to irrigate 800,000 hects. out of which 500,000 hects. are state owned and the balance is private property. The total cost of the project (including the dam, irrigation canals and electric power) has been estimated at 1,140 million L.S. The electricity generated, estimated at 300,000 kilowats, would assist in trimming the costs of Aleppo's industries and the encouragement of new ones. The other main river is the Khabour which has been estimated to irrigate an area of 150,000-200,000 hectares.[4]

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[1]This is especially true of the "Maslaha" lands; a term that designates lands cultivated on large scale basis. For example, Pierre Maamarphachie was reputed to have had under cultivation 100 thousand hectares. See Warriner, op.cit., p. 90.

[2]For a description of the peasant's state, see, Abd-al-Qadir Ayash, "The Village in the Euphrates Valley," Al-Abhath, vol. 10, December 1957, pp. 475-488.

[3]Abdul Rahman Hamide, La Region D'Alep, Universite de Paris, Paris, 1959, pp. 559-61.

[4]U.A.R., Syrian Region, Program of Economic Development, 1958-67, op.cit., pp. 184,194.

TABLE 22

AREA AND KIND OF LAND IN MOHAFAZAS - 1961
(IN HECTARES)

Mohafaza	Total Area of Mohafaza	Cultivable Land			Uncultivable Land					
		Total	Cultivated	Uncultivated	Total	Bldgs. & Public Utilities	Swamps & Lakes	Rocky & Sandy Lands	Pastures & Meadows	Forests
Damascus	1,952,753	581,463	308,739	272,724	371,349	97,353	750	273,246	949,756	50,185
Homs	4,219,000	920,700	795,000	125,700	498,900	151,100	500	347,300	2,696,100	103,300
Hama	852,185	607,798	512,289	95,509	42,273	6,073	200	36,000	79,763	102,351
Aleppo	1,614,185	1,404,778	1229,298	175,480	157,902	24,520	1,100	112,282	41,360	30,145
Idlib	677,764	548,768	521,109	27,659	100,656	26,500	-	74,156	11,675	16,665
Latakia	454,000	250,649	204,508	46,141	124,456	3,060	1,000	120,376	9,915	69,000
Deir -Zor	3,306,000	710,400	164,895	545,505	1,296,256	18,726	30	278,100	1,297,170	1,574
Rashid	2,200,000	664,685	412,000	252,685	269,342	7,000	50	262,292	1,263,973	2,000
Hasakeh	2,240,025	2,095,387	1629,733	465,654	52,571	15,190	2,500	34,881	80,831	11,236
Dara	420,000	335,058	335,058	-	63,954	7,380	45	56,529	16,462	4,526
Sweida	550,000	293,875	268,390	25,485	234,445	9,020	450	224,995	15,760	10,920
Total	18,470,912	8,413,561	6381,019	2,052,542	3,192,684	365,922	6,605	2,820,157	6,462,765	401,902

Source: Syrian Arab Republic, Ministry of Agriculture, Agricultural Abstract, 1961, p. 7.

TABLE 23

PATTERN OF CULTIVATED LAND - 1961
(IN HECTARES)

Mohafaza	Total of Cultivated Area	Fallow	Cropped								
			Total of Cropped Area	Rainfed	Total of Irrigated	Total	From Rivers	From Wells	Total	From Riv. & Springs	From Riv. & Gharafat
Damascus	308,739	131,752	176,987	104,804	72,183	52,111	4,820	47,291	20,072	19,872	200
Homs	795,000	483,000	312,000	268,000	44,000	12,400	900	11,500	31,600	31,000	100
Hama	512,289	251,900	260,389	220,389	40,000	25,947	14,730	11,217	14,053	11,354	2,699
Aleppo	1,229,298	228,200	1,001,098	919,609	81,489	52,850	28,080	24,770	28,639	26,600	2,039
Idlib	521,109	136,183	384,926	357,150	27,776	21,196	17,859	3,337	6,580	6,540	40
Latakia	204,508	11,270	193,238	177,926	15,312	8,651	4,668	3,983	6,661	6,639	22
Dier - Zor	164,895	41,415	123,480	17,800	105,680	105,680	105,680	-	-	-	-
Rashid	412,000	121,389	290,611	150,611	140,000	129,000	121,000	8,000	11,000	11,000	-
Hasakeh	1,629,733	922,188	707,545	681,559	25,986	19,579	16,672	2,907	6,407	6,157	250
Dara	335,058	1,148,765	186,293	180,308	5,985	1,432	1,320	112	4,553	4,553	-
Sweida	268,390	91,004	177,386	177,386	-	-	-	-	-	-	-
Total	6,381,019	2,567,066	3,813,953	3,255,542	558,411	428,846	315,729	113,117	129,565	124,215	5,350

Source: Syrian Arab Republic, Ministry of Agriculture, Agricultural Abstract, 1961.

CHAPTER III

CONTRIBUTION OF THE AGRICULTURAL SECTOR IN THE PROCESS OF DEVELOPMENT

Hitherto, we have tried to point out the eminence of the agricultural sector in the Syrian economy and the dependence of other sectors on its performance. Our survey of the agricultural sector itself revealed the following:

1. The growth in agricultural output, during 1948-62 inclusive, resulted primarily from expansion of the cultivated area and not in response to improved productivity.

2. Extensive methods of cultivation predominate because, approximately 89% of the cultivated areas is rainfed. Moreover, the amount and pattern of rainfall is the main determinant of production levels in a given year.

3. The prospects for future realization of higher production standards depend on (a) extension of irrigated area (b) rise in productivity. Both avenues are very promising.

4. There is an evident maldistribution of rural population in relation to land resources which has resulted in varying degrees of disguised unemployment and concomitant low standards of productivity.

5. The level of the peasants' standards of living did not improve appreciably except for some important institutional changes the future fruits of which largely depend on the ability of government institutions to supplant the old landlord institutional set-up with a well integrated social and economic program.

Our aim henceforth, will be to reveal the past contribution of the agricultural sector to the development efforts of the Syrian economy by reviewing three specific areas in which it has played a role (a) in satisfying demand for food (b) as a source of and beneficiary from public revenue and, (c) as an exporter and earner of foreign exchange.

A. Agricultural Sector and Food Supplies.

In the process of development, underdeveloped countries have experienced growing populations as a result of high birth rates, a decline in mortality rates, particularly among infants, and the ever rising average expectation of the life span of the individual. The trends are the result of the advancement in public health measures, control of epidemic and endemic diseases and/or relative rise in standards of living.[1] The decline in death rates can take place even without a drastic reorganization of the agrarian economy. Thus "substantial economic improvement may be a sufficient condition for a decline in mortality but it is not today a necessary condition."[2] This problem was not faced by western countries that experienced sustained growth during the 19th and 20th centuries. Development ran pari-passu with population growth.

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[1]Jean Bourgeois-Picat and Chia-lin Pan, "Trends and Determinants of Mortality in Underdeveloped Areas," Mill bank Memorial Fund, Trends and Differentials in Mortality, New York; 1956, pp. 15-18 & pp. 23-25. Also, W.P.O. Logan, "Measurement of Infant Mortality, United Nations, Population Bulletin, New York; 1955, p. 50.

[2]Ansley J. Cole and Edgar M. Hoarse, Population Growth and Economic Development in Low Income Countries, New-Jersey: Princeton University Press, 1958, p. 14.

It is important to differentiate between consumption level or standard and living level or standard. "Consumption means the commodities, their uses, and services consumed; living includes consumption and much more: working conditions, cushions against major and minor shocks, freedoms of various kinds, and what I tentatively call 'atmosphere'. The level of consumption or living ... is that actually experienced or enjoyed, or suffered by the individual gr group; the standard of consumption or living is the level that is urgently desired and striven for, special gratification attending substantial success and substantial failure yielding bitter frustration."[1]

In our attempt to measure the level and rate of the agricultural sector's contribution to value of apparent food consumption, we are concerned with the level of consumption and not the standard of living. This is because our study deals with actual levels in a past period and is not concerned with desired standards for the future. Furthermore, the subjective elements inherent in the concepts of standard of living do not lend themselves to quantitative analysis. Our aim is to correlate statistically and analyze the following relationships and their rates of change during 1951-62 inclusive:

1. The share of the value of domestic food output in total value of apparent food consumption.

2. The level and change in the value of per capita apparent consumption.

3. The share of the value of domestic food production in total income generated in the agricultural sector.

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[1]Joseph S. Davis, "Standards and Content of Living," A.E.R. Vol. XXXV, March, 1945, No. 1, pp. 2-3.

1. Methodology.

Apparent food consumption for a given year can be defined as A = D - S + M - X; where A = Value of apparent food consumption;[1] D = Value of domestic food output; S = Value of seed consumption; M = Value of imports of food supplies; X = Value of exports of food supplies. The calculation of the value of each was undertaken separately and the prices were current prices.

2. Value of Domestic Food Output - 1950-62.

To estimate the value of domestic food output at current prices during 1950-62 inclusive, the following groups of food were taken into account (a) cereals, (b) dry legume, (c) vegetables, (d) fruits, (e) milk and milk products, (f) meat, (d) others. A detailed list of the main items under each group was constructed and then the quantities were multiplied by the respective Damascus wholesale prices to derive values. In the absence of wholesale price data, in certain cases, mainly in case of fruits, 80% of the export price was adopted to allow for the superior quality of the exported fruits and the additional transport cost. In the case of milk and milk products 70% of Damascus retail prices of butter, cheese and fresh milk were used to derive values. It was assumed that 75% of total milk production was considered as transformed into milk products; the rest being consumed as fresh milk. The estimate of the value of meat production proved somewhat troublesome. The number of sheep, lambs, cows, goats, kids, and camels slaughtered annually in the slaughter houses all over Syria are

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[1]Apparent consumption does not take into consideration changes in stocks.

given in the Syrian Statistical Abstracts. Appropriate conversion factors were used to convert the slaughtered number of each group into tons of meat (carcasses). Wholesale prices of meat with bones of these groups are available only for 1956-62 inclusive. In the absence of both wholesale and retail prices for 1950-55 inclusive, with the exception of sheep, the simple average of the wholesale prices of each group during 1956-62 was used.

TABLE 24

ESTIMATE OF THE VALUE OF MAIN GROUPS OF DOMESTIC FOOD PRODUCTION AT CURRENT PRICES 1950-62*
(MILL. L.S.)

Year	Grand Total	Dry Legumes	Vege-tables	Fruits	Milk & Products	Meat	Cereals	Others
1950	426.5	18.29	23.5	86.4	58.1	32.1	202.4	5.8
1951	454.1	25.9	25.0	79.9	70.0	38.2	183.6	11.5
1952	654.3	37.8	25.1	78.1	84.8	35.5	355.0	20.0
1953	566.5	31.2	15.9	79.0	105.4	35.4	281.3	18.3
1954	514.1	26.5	12.5	71.3	102.8	37.0	248.1	15.9
1955	403.8	15.2	10.3	72.4	93.6	47.5	150.8	14.0
1956	668.9	27.5	19.5	110.0	127.3	45.6	322.4	16.6
1957	698.6	31.9	30.3	115.3	123.3	56.2	326.6	15.0
1958	476.6	22.8	27.8	136.4	79.7	59.7	135.4	14.8
1959	493.9	24.8	26.0	94.1	57.0	81.8	198.9	11.3
1960	471.1	10.6	24.3	123.9	59.8	82.1	176.0	14.4
1961	572.9	26.5	27.9	154.8	49.2	78.5	238.3	17.7
1962	819.8	39.7	47.4	189.8	80.2	68.1	370.4	24.2

*For a detailed list of items under each group and methods of calculation see Appendix 'A'.

The most important group of domestic food production both in terms of quantity and value, is cereals; accounting on the average for approximately half the total value of domestic food production. Second in importance are fruits which experienced the greatest rate of increase in value, relative to other groups, during the last decade; value of fruits rose from 86.4 mill. L.S. in 1950 to 184.1 mill.L.S. in 1962.[1] Vegetables are the least important group and the fluctuations in value are more a result of price variations rather than output. It would be expected, in the future, that with a rise in real per capita income the increased demand for vegetables would bring about an increase in production and/or imports. Indeed with an elastic income demand for vegetables, meat and milk products, it is more likely that the rate of increase in their consumption would be greater, for a given rise in income, than cereals and dry legume.

The most important aspect of the general trend of domestic food production is its wide fluctuations from year to year. This has the direct effect of burdening the balance of trade with increased imports and/or decreased exports, or the deprivation of the population in terms of consumption levels. These fluctuations, as noted before, are the result of unfavorable weather conditions. During 1958-60 inclusive, the average value of food production dropped by approximately one third of the 1956-57 level. The absolute change in value was greatest in the case of cereals which is the main dietery item in the consumption budget of the population.[2]

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[1] The values of fruits are even greater than the ones calculated if all fruit items were to be considered.

[2] In the cost of living estimate conducted in Damascus in 1956, 27.3% of total expenditures was spent on cereals and products. See, Syrian Republic, Study of Cost of Living in Damascus, Damascus, 1957, p. 77.

3. Imports.

To estimate the value of imported food supplies during 1951-62 inclusive, the foreign trade statistics of Syria were reviewed, and food items with a value of more than half a million L.S. were extracted. The items were grouped as follows: (a) Cereals and products, (b) Dry legumes, (c) Vegetables, (d) Fruits, (e) Coffee, tea and spices, (f) Fats, (g) Milk and milk products, (h) Sugar and sugar products, (i) Fish and preserved meat.

TABLE 25

ESTIMATE OF THE VALUE OF MAIN GROUPS OF FOOD IMPORTS
1951-62 (MILL. L.S.)*

Year	Grand Total	Cer. & Prod.	Dry Legs.	Vege-tables	Fruits	Cof.,Tea & Spices	Fats	Milk Prods.	Sugar & Prod.	Fish & Meat Preserves
1951	51.1	11.4	-	1.4	10.6	5.9	.9	-	2.9	-
1952	45.1	16.1	-	4.2	13.0	4.1	2.7	-	5	-
1953	31.9	5.2	-	4.4	12.0	4.6	2.0	-.6	4.9	-
1954	57.6	4.9	-	5	12.7	5.8	1.8	.9	6.0	.5
1955	52.2	11.6	-	5.5	16.0	7	2.4	.9	8.8	-
1956	55.4	9.7	-	7	16.9	5.8	2.9	1.8	10.0	1.3
1957	86.4	11.9	-	10.6	22.5	15.4	4.0	1.6	19.8	2.8
1958	88.4	10.1	-	11.0	27.4	14.1	5.7	1.5	18.1	2.5
1959	115.4	28.5	-	10.1	27.5	15.5	10.5	5.2	18.2	2.5
1960	180.9	80.9	-.8	9.9	27.4	14.7	11.4	11.2	17.5	7.1
1961	126.2	51.1	-	6.4	24.0	11.4	1.7	5.8	19.9	5.9
1962	154.0	59.9	-	6.9	30.6	25.1	-	6.9	18.2	6.4

* See Appendix 'A' for methods of calculations.

The two most important groups of food, in terms of value, are cereals and fruits. The first group became prominent in the total value of imported food especially during 1959-62 inclusive. It is interesting to note that even though Syria experienced a catastrophe, both in terms of production and value of cereals in 1958, yet the value of imported cereals in 1958 was only 10.1 mill.L.S. The explanation lies probably in the availability of a stored stock from the bumper year of 1957. For in the next year (1959) the value of imported cereals jumped to 28.3 mill.L.S. and in 1960 reached a peak of 80.9 mill.L.S. The main items of fruits imports were oranges and dates. Between 1950-1962 inclusive the value of fruit imports grew by 65%. The greatest rate of increase was however in imports of sugar and sugar products. From a value of 4.9 mill.L.S. in 1953 it jumped to 18.2 mill.L.S. in 1962; i.e., by 271% increase. Raw sugar constituted more than 90% of the total value of imported sugar and products. The value of imported raw sugar rose from 4.9 mill.L.S. in 1953 to 17.6 mill. in 1962, i.e., by 259%.

Total value of food imports experienced a steady rise, with the exception of 1953, 1958, and 1961, during the whole period of 1951-62. The absolute rise in value was considerably greater, as could be expected, during 1957-62 as compared to the period 1951-56. Taking the whole period into account the absolute increase in value between 1951-62 was 122.9 mill.L.S.

4. Exports.

The same method followed in estimating value of food imports was applied in the case of exports. The values of different items of food exports were entered under the following groups (a) Cereals, (b) Dry legumes, (c) Vegetables, (d) Fruits, (e) Oils, (f) Milk products and eggs, (g) Others.

TABLE 26

ESTIMATE OF VALUE OF MAIN GROUPS OF FOOD EXPORTS 1951-62*
(MILL. L.S.)

Year	Grand Total	Cereals	Dry Legumes	Vege-tables	Fruits	Oils	Milk Prods. & Eggs	Others
1951	23.4	5.6	2.0	4.2	2.6	-	7.0	2.0
1952	55.5	36.5	2.5	5.9	5.8	-	5.0	2.0
1953	90.2	62.7	6.7	3.2	3.9	2.2	9.8	1.7
1954	114.5	83.8	9.0	3.5	5.5	1.5	8.8	2.6
1955	48.6	15.4	5.2	5.5	5.2	4.6	9.7	3.0
1956	112.1	62.5	12.9	6.1	5.1	11.7	11.2	2.8
1957	158.5	91.5	14.5	4.2	6.5	5.9	14.5	2.0
1958	90.5	48.5	10.6	5.1	11.9	1.5	11.2	2.1
1959	30.7	1.6	4.9	4.8	11.1	1.9	4.7	1.7
1960	21.0	.6	-	4.5	10.5	3.1	.7	1.8
1961	14.9	.6	1.4	3.2	4.8	3.4	-	1.5
1962	115.5	76.4	14.7	7.5	5.1	5.6	3.1	3.1

* For a detailed list of value of items under each group and methods of calculations, See Appendix 'A'.

Cereals represent the largest exports group. Because of the drought years of 1958-61 inclusive, the value of exported cereals dropped from 91.5 mill.L.S. in 1957 to 48.5 mill. L.S., 1.6 mill. L.S., .6 mill. L.S. and .6 mill. L.S. during 1958, 1959, 1960 and 1961. This reflected on the total value of food exports which fell from 158.5 mill. L.S. in 1957 and to 90.5 mill. L.S., 30.7 mill. L.S., 21 Mill. L.S. and 14.9 mill. L.S. during the years 1958 to 1961. There is a clear tendency in the value of main groups of food exports to move in the same direction. The three most important

groups, viz. cereals, milk products and eggs, and dry legume depend more than the other groups on the amount and pattern of rainfall. In years of inadequate rainfall or adverse weather conditions, for example 1955 and 1958-61 inclusive, the drop in the levels of domestic production reflected adversely on the quantity of exportable foods.

5. Value of Apparent Food Consumption.

Syria remains a sparsely populated country relatively to cultivable land resources, despite a very high annual rate of population increase during the last decade, i.e., an average of 3.6% annual increase during 1950-62 (see Table 27 Col. 13). A simultaneous expansion in the cultivated area took place. Obviously, the growth in thevalue of domestic food products can result from a rise in the prices and / or production. For the period under study there was no evidence of a substantial rise in prices of foodstuffs, except for 1959 and 1960, as indicated by the wholesale price index of foodstuffs[1] that could distort the meaning of our calculations.

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[1]The fluctuations in value of apparent consumption (see table 27) can result from a change in one or more of the following (a) quantity available (b) prices (c) changes in stocks.

Abstractions from price changes is made by deflating by the food stuffs price index. Table 27a shows price movements were partially behind the wide annual fluctuations particularly during 1952 and to a lesser extent 1959 and 1960

Table 27 a

Estimate of value of Real Per Capita Apparent Consumption

1952 - 62

ar	(1) Appt. Consumpt. (Mill.L.S.)	(2) Food Stuffs Price Index 1958-100	(3) Real Appt. Consumpt. 1 ÷ by 2 (Mill.L.S.)	(4) Per Capita Appt. Consumpt. (L.S.)	(5) Real Per Capita Appt. Consumpt. (L.S.)
52	576.4	126	457.4	168.9	133.2
53	466.4	104	448.4	127.6	122.6
54	400.6	93	430.7	104.9	113.3
55	361.8	100	361.8	91.8	91.8
56	563.5	106	531.6	139.4	132.1
57	605.6	100	605.6	145.7	146.1
58	433.	100	433	97.9	97.9
59	517	118	438	111	94
60	518.1	119	435.3	119.5	89.9
61	638.9	114	560.4	127.7	112.7
62	815.1	113	721.3	156.4	139.2

Table 27 a

Estimate of value of Real Per Capita Apparent Consumption

1952 - 62

Year	(1) Appt. Consumpt. (Mill.L.S.)	(2) Food Stuffs Price Index 1958-100	(3) Real Appt. Consumpt. 1 ÷ by 2 (Mill.L.S.)	(4) Per Capita Appt. Consumpt. (L.S.)	(5) Real Per Capita Appt. Consumpt. (L.S.)
1952	576.4	126	457.4	168.9	133.2
1953	466.4	104	448.4	127.6	122.6
1954	400.6	93	430.7	104.9	113.3
1955	361.8	100	361.8	91.8	91.8
1956	563.5	106	531.6	139.4	132.1
1957	605.6	100	605.6	145.7	146.1
1958	433.	100	433	97.9	97.9
1959	517	118	438	111	94
1960	518.1	119	435.3	119.5	89.9
1961	638.9	114	560.4	127.7	112.7
1962	815.1	113	721.3	156.4	139.2

TABLE 27
ESTIMATE OF VALUE OF APPARENT FOOD CONSUMPTION AT CURRENT PRICES - 1951 - 1962[a]
(MILL. L.S.)

		I Net Value of Domestic Production of Food					II Value of Imports of Food Supplies		III Value of Exports of Food Supplies		IV Value of Apparent Consumption(3 + 6)-8		V Population		VI Value of Per Cap.V. of Appt. Cons.1962		VII Per Cap.Cons. as % of Per Cap.Income	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Year	Net Per Capita Food Production	Value of Domestic Product. of Food Mill.LS	Value of Seeds Consumpt. Mill.LS	Net Value of Domes. Prod. of Food(1-2) Mill.LS	(3) as % of Value of Appt. Consumpt. Mill.LS	Annual Change in (3) Mill.LS	Value Mill.LS	(6)as % of Total Value of Appt. Consumpt. Mill.LS	Value Mill.LS	(8)as % of Net Value of Domes.Prod. of Food Mill.LS	Value Mill.LS	Annual Change Mill.LS	Number	% Annual Increase	Value in LS	Annual Change LS	Per Capita Income LS	Value of Per Capita Appt. Consumption as % of (16)
1950	123.2	426.5	25.7	400.8									3,252,687					
1951	117.5	434.1	42.7	391.4	98%	- 9.4	31.1	8%	23.4	4%	399.1		3,329,235	2.3%	119.9			
1952	170.8	634.6	48	586.6	102%	+175.2	45.1	8%	55.3	8%	576.4	+177.3	3,433,625	3.1%	168.9	+ 48		
1953	143.5	566.5	41.8	524.7	112%	- 61.9	31.9	7%	90.2	14%	466.4	-110.4	3,655,904	6.4%	127.6	- 40.3		
1954	125.4	514.1	36.6	477.5	119%	- 47.2	37.6	9%	114.5	21%	400.6	- 65.8	3,806,973	4.1%	104.9	- 22.6	537	19%
1955	91.5	403.8	45.6	358.2	99%	-119.3	52.2	14%	48.6	11%	361.8	- 38.8	3,914,625	2.8%	91.8	- 13.1	466	20%
1956	154.1	668.9	48.7	620.2	110%	+262	55.4	10%	112.1	15%	563.5	+201.7	4,025,165	2.8%	139.4	+ 47.6	572	24%
1957	158.6	698.6	40.9	657.7	109%	+ 37.5	86.4	14%	138.5	19%	605.6	+ 42.1	4,144,980	2.9%	145.7	+ 6.3	573	25%
1958	98.1	476.6	42.6	434	100%	-223.7	88.4	20%	89.4	16%	433	-172.6	4,420,587	6.6%	97.9	- 47.8	447	22%
1959	93.1	493.9	50.6	434.3	84%	+ .3	113.4	22%	30.7	3%	517.0	+ 84	4,656,688	5.3%	111	+ 13.1	458	24%
1960	86.4	471.1	52.9	418.2	72%	- 16.1	180.9	31%	21.0	1%	576.1	+ 61.1	4,839,237	3.9%	119.5	+ 8.5	456	26%
1961	104.3	572.9	45.3	527.6	83%	+109.4	126.2	20%	14.9	1%	638.9	+ 60.8	4,972,316	2.7%	127.7	+ 8.2	488	26%
1962	148.3	819.8	43.2	776.6	95%	+249	154	19%	115.5	10%	815.1	+176.2	5,179,684	4.1%	156.4	+ 28.7	516	30%

[a]For methods of calculation See Appendix "A".

The agricultural sector in Syria has been able, except during 1959-61 inclusive to provide the rising population with necessary[1] food supplies and simultaneously to generate a substantial exportable surplus (See Table 27 Col. 8). Imports of food supplies as per cent of total value of apparent consumption ranged from a low of 7% in 1953 to a high of 31% in 1960 while value of exports of food as per cent of total value of apparent food consumption, for the same two years, dropped from 19% to 5%.[2] A useful relationship can be derived from the table, if we get net value of food imports as per cent of value of apparent consumption, i.e.

$$\frac{(M - X)\times 100}{\text{Value of Appt. Consumpt.}} \quad \left(\text{See Table 27 Cols. } \frac{6-8\times 100}{10}\right)$$

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[1] We do not imply here "adequate" food supplies whose measurement should take into consideration the number of calories consumed per capita per day, the protein content, etc.

Daily Food Consumption per Person, Selected Countries - Grams, Except as Indicated

Country Selected	Calories (Number)	Protein			Fats
		Total	Animal	Vegetables	
Israel					
1956-57	2850	88.1	31.5	56.8	80.2
1957-58	2750	84.1	33.0	51.1	83.5
1958-59	2810	83.6	33.2	50.4	85.1
1959-60	2770	82.9	33.6	49.5	86.3
Syria					
1957	2330	78.0	16.8	61.2	37.0
Turkey					
1956-57	2800	88	15	73	50
1957-58	2800	90	14	76	46
1958-59	2850	90	15	75	51
U.A.R.(Egypt)					
1956-57	2570	74.1	12.9	61.2	39.4
1957-58	2630	77.7	13.3	64.4	42.8
1958-59	2520	72.9	11.8	61.1	39.8

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[2] Value of exports as per cent of value of apparent consumption can be derived from Table 27 by adding colums 4 and 7 and subtracting the sum from 100.

This would show the value of food imports as per cent of value of apparent food consumption that was not paid for by value of food exports, i.e. net foreign contribution to value of apparent food consumption. During 1951, 1955, 1959-1962 inclusive, value of net imports as per cent of value of apparent consumption were 2%, 1%, 16%, 27% and 5% respectively. This indicates that net food imports did not assume any importance except during the abnormal years of 1959-61 inclusive. On the other hand, food exports as per cent of total food consumption were respectively 2%, 12%, 19%, 10%, 9% and 1% for the years 1952-1958 inclusive. Value of food exports as per cent of net value of domestic food production experienced considerable fluctuations (See Table 27, Col. 9). The highest level was reached in 1953 when 21% of total value of domestic food products were channelled to export markets while the lowest level was experienced in 1960 and 1961 with only 1% of domestic production being exported.

Per Capita consumption did not experience a marked improvement during 1951 - 1962 (See Table 27, Cols. 14 & 15). The fluctuations in per capita consumption is the direct result of fluctuations in the value of domestic food production. The highest level of per capita consumption was attained in 1952 - 168 L.S. - while the lowest were those of 1955 - 92 L.S. - and 1958 - 98 L.S. It is important to note that in 1955 and 1958 the value of food exports as a proportion of total value of apparent consumption were 15% and 19% respectively while food imports represented 14% and 18% of total food consumption. In effect, this means that the severe drop in value of domestic production levels was not wholly balanced by an increase in the value of food imports and/or a reduc-

TABLE 28

ESTIMATE OF VALUE OF APPARENT PER CAPITA CONSUMPTION OF MAIN GROUPS OF FOOD AT CURRENT PRICES - 1951-1962[a]

	Cereals and Products		Dry Legume		Vegetables		Fruits		Milk & Milk Products		Meat	
Year	Value of Appt. Consumption (Mill.LS)	Value of Appt. Per Capita Consumption (LS)	Value of Appt. Consumption (Mill.LS)	Value of Appt. Per Capita Consumption (LS)	Value of Appt. Consumption (Mill.LS)	Value of Per. Capita Appt. Consumption (LS)	Value of Appt. Consumption (Mill.LS)	Value of Per. Capita Appt. Consumption (LS)	Value of Appt. Consumption (Mill.LS)	Value of Per. Capita Appt. Consumption (LS)	Value of Appt. Consumption (Mill.LS)	Value of Per Capita Appt. Consumption (LS)
1951	152.5	45.8	18.6	5.6	24.5	7.4	88	26.4	65	19.5	38.5	11.5
1952	292.3	85.1	30	8.7	23.6	6.9	87.1	25.4	82.4	24	35.5	10.3
1953	184.3	50.4	20.1	5.5	18.8	5.1	86	23.5	98.9	27	35.4	9.7
1954	136.4	35.8	13.7	3.6	15.8	4.1	78.4	20.6	97.8	25.7	37	9.7
1955	104.5	26.7	6.8	1.7	10.4	2.7	83.2	21.2	86.9	22.2	47.5	12.1
1956	225.2	55.9	10.4	2.6	20.3	5	121.7	30.2	120.8	30	45.6	11.3
1957	211.5	51	12.1	2.9	37.3	9	130.6	31.5	114.6	27.6	56.2	13.6
1958	64.4	14.5	3.2	.7	31.8	7.2	158.6	35.9	73.8	16.7	59.7	13.5
1959	183.5	39.4	11.4	2.4	29.3	6.3	115.8	24.9	57.8	12.4	81.8	17.6
1960	209.1	43.2	5.7	1.2	29.5	6.1	145.8	30.1	51.5	10.6	82.1	17.0
1961	248.6	50	20.8	4.2	31	6.2	147.6	29.7	55.1	11.1	78.5	15.8
1962	316.3	61.1	19.4	3.7	49.9	9.6	208.9	40.3	84	16.2	68.1	13.1

[a]For methods of calculation see Appendix "A".

tion in the value of exported food. Either available stocks filled the gaps or the levels of consumption were allowed to deteriorate. This is in contrast to 1959-61 when consumption did not deteriorate as a result of drop in domestic food production but, on the contrary, increased from 97 L.S. in 1958 to 111 L.S., 119 L.S., and 128 L.S. during 1959, 60 and 61 respectively. Obviously, imports made possible this rise in per capita value of apparent consumption during the period. This becomes immediately apparent if per capita consumption were compared with per capita domestic food production (See Table 27).

The three most important consumption groups were cereals, fruits and milk and milk products; accounting together for more than 80% of total value of per capita consumption. Relatively and absolutely the greatest rate of fluctuations was experienced in per capita consumption of cereals. In 1952 it was 85.1 L.S., while in 1955 it dropped to 26.7 L.S. and still in 1958 reached a low of 14.5 L.S. Fruit consumption, on the other hand, experienced a relative stability during 1951-61. An interesting inverse relationship can be traced between per capita value of milk and milk products, on the one hand, and meat, on the other, during 1951-62. An increase in the value of the first is associated with a decrease in the value of the second which suggests a possible substitution effect.

6. Income Generated in the Agricultural Sector and Net Value of Food Production.

The value of net domestic food production as per cent of income generated in the agricultural sector assumed an appreciable rate of increase during 1954-62 inclusive. Even though, the two sets of figures (see table 29, Cols. 1 and 3), are not exactly ideal for purposes of comparison and analysis but they do indicate an important trend. Net value of domestic

TABLE 29

INCOME GENERATED IN AGRICULTURAL SECTOR AND NET VALUE OF DOMESTIC FOOD 1954-62 (MILL. L.S.)

Year	(1) Income Gener. in Agric.Sec. Mill. L.S.	(2) Annual Change Mill.L.S.	(3) Net Value of Domes.Food Production Mill.L.S.	(4) Annual Change Mill.L.S.	(5) (3) as % of (1)
1954	871	-	477.5	-	54.8%
1955	604	-166	558.2	-119.3	59.3%
1956	936	+332	620.2	+262	66.3%
1957	1035	+ 99	657.7	+ 37.5	63.5%
1958	659	-376	434	-223.7	65.8%
1959	721	+ 62	434.3	+ .3	60.2%
1960	662	- 59	418.2	- 16.1	63.2%
1961	829	+167	527.6	+109.4	63.6%
1962	1084	+255	776.6	+249	71.6%

Sources: Colume (1) from Banque Centrale de Syrie, Bulletin Periodique, Premiere Annee - Numero 2, Damas, p. 14. Column (3) from Table 27, Col. 3.

food as per cent of agricultural income[1] - both measured in current prices - jumped from 54.8% in 1954 to 71.6% in 1962 (See Table 29, Col. 5). This means that more of agricultural resources were diverted into the satisfaction of food demand brought about by the rapidly rate of increase in population during this period. Moreover, there is a direct relationship

[1] Net value of domestic food production equals gross value minus value of seeds. Income generated in the agricultural sector equals gross income minus value of seeds, fertilizers, fuel, depriciation, etc.

between the annual change in the values of agricultural income and domestic food supplies; a decrease in the value of the former was associated with a decrease in the latter and vice-versa.

7. Implication to Development.

In the early stages of development it is essential to raise as much as possible the ratio of saving to national income which implies that levels of consumption should not be allowed to absorb the larger part of any real increase in income. In Syria, it seems that consumption levels have been rising steadily mainly due/to rapid rise in population (see table 29, Col. 5). The surplus generated in the agricultural sector and which acted as a cushion in the process of development is being constantly thinning. In 1951 value of apparent consumption was 539.1 mill. L.S. while in 1962 it rose to 815.1 mill. L.S. For the same period population increased from 3,329,235 to 5,179,684. As noted before, future expansion of and stability in food production greatly depend on expansion of irrigated area. The stress on irrigation programs is evident in the five year Syrian development plan (See table 34).

A familiar paradox in the process of development is the desire to accelerate the rate of capital formation when people want simaltaneously to improve their levels of consumption. Income can be either consumed or saved. Nothing short of present sacrifices of increased levels of consumption, would fulfil the aims of society in a higher future real per capita income. The problem is not so much a cut in current consumption levels as in combating future rising trends. This necessitates siphoning a good part of any rise in income by government and the creation of new attitudes and institutions, especially in the rural areas, that encourage savings.

B. Contribution of the Agricultural Sector to and Benefit from Central Government Revenue.

1. Agricultural Sector as a Source of Revenue.

One of the main problems of underdeveloped countries is to find ways and means to increase the rate of capital formation. The importance of the rate of capital formation in a country in affecting the rate of economic growth has been generally recognized by economists. W.W. Rostow believes that one of the main conditions required for the "take-off" is the ability of a society to transform itself from a 5% to 10% investor of national income[1] - with all the necessary changes in attitudes and institutions. The importance of the role attributed to capital formation is evident in Arthur Lewis' two sector model where the rates of profit and employment in the capitalist sector - the part of the economy that uses reproducible capital and pays capitalists a price for the use - depends on the rate of capital formation in that sector.[2]

Underdeveloped countries are not only plagued with a viscious circle on the demand side of capital but also on the supply side. The small capacity to save is a manifestation of the low level of real income which is a consequence of low productivity which in turn is caused by a shortage of capital.[3] Obviously, since the agricultural sector is of major importance,

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[1]Rostow, op.cit., p. 39.

[2]W. Arthur Lewis, "Economic Development with Unlimited Supplies of Labor," The Economics of Underdevelopment, ed. A.N. Agarwala and S.P. Singh, London: Oxford University Press, 1958, pp. 406-422.

[3]Ragner Nurkese, Problems of Capital Formation in Underdeveloped Countries, Oxford: Basil Blackwell, 1958, p. 5.

both as a generator of income and as employer of resources, its contribution of capital funds for productive use both by the private and public sectors is expected to affect significantly the speed up in the rate of capital formation in developing countries. "Civilization is made possible for any society or nation when its economic system begins to generate a surplus over consumption... A great part of the surplus originates in the agricultural sector and is appropriated by land owners, money landers and merchants who usually do not possess the habit of productive investment."[1]

Japan can be taken as a good example where the agricultural sector provided the lion's share of capital sources in the early stages of development. The method used to siphon capital into other sectors was through land taxes which amounted to a nearly 13% of the value of a normal crop (see table 30 below). In contrast to collection in kind land taxes did not vary with fluctuations in yields or prices. The burden of public development expenditure was to a large extent shouldered by the agricultural population. Increases in productivity were siphoned by heavy taxation and the proceeds used to build social overhead capital, a broad industrialization programme and building the armed forces.

Two observations are necessary. First is the predominant share of land tax as per cent of total tax revenue in the earlier years. Second, the declining importance of land tax, as the economy moved to higher income levels, where the government was able to tap new and more lucrative sources. Parallel with the rise in Government revenue from agriculture there was also a rise in net income of landlords, due to the higher level of rice

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[1]Alan Williams, Public Finance and Budgetary Policy, New York, Fredrick A. Praeger, 1965, p. 267.

TABLE 50

JAPAN - COMPOSITION OF MAIN CENTRAL GOVERNMENT TAXATION REVENUE[a] - (FIVE YEAR AVERAGES) (000 ¥)

Year	Income Tax	% of Total	Land Tax	% of Total	Business Tax	% of Total	Customs Duty	% of Total	Total
1862-1882	1,091	2.4	38,446	85.6	740	1.6	4,654	10.4	44,941
1893-1897	1,599	3.3	58,679	80.4	1,335	2.8	6,483	13.5	78,096
1898-1902	5,520	7.8	44,632	63.2	6,058	8.6	14,414	20.4	70,624
1903-1907	19,907	15.5	71,579	55.8	15,710	12.3	33,835	26.4	141,031
1908-1912	34,071	18.3	79,541	42.9	25,033	13.5	46,691	25.3	185,337
1913-1917	51,249	26.0	73,983	37.6	25,334	12.9	46,245	23.5	196,811
1918-1922	187,276	47.4	73,956	18.3	57,226	14.2	85,686	21.1	404,124
1923-1927	206,692	45.0	71,204	15.5	58,835	12.8	122,264	26.7	459,218
1928-1932	177,568	42.9	65,121	15.8	48,290	11.7	122,414	29.6	413,393
1933-1937	267,695	49.4	58,175	10.7	62,132	11.5	153,751	28.4	541,753

[a]Revenue other than the four main taxes... The so-called "miscellaneous revenue"... is excluded from the table. Before World War I it was accounted for about 30 to 40 per cent of total revenue; after the War its share rose from 45 to 50 per cent.

Source: Kazushi Ohkawa and Henry Rosovsky. "The Role of Agriculture in Modern-Japanese Economic Development," Economic Development and Cultural Change, vol. IX, No. 1, Part II,(October 1960), p. 61.

prices after 1873, a good portion of which was ploughed back in industrial ventures.[1]

[1]Bruce F. Johnston , "Agricultural Productivity and Economic Development in Japan," Journal of Political Economy, vol. LIX, No. 6, (April, 1951), pp. 502-504.

2. Development Planning in Syria.

Like other underdeveloped countries, Syria, after winning independence, became interested in improving the standards of living of the population. In 1954,[1] upon the invitation of the Syrian government, the I.B.R.D. dispatched a group of experts to lay down the future development prospects of Syria. The following year, a seven year development budget was decreed to finance the plan (Law No. 116 29/8/55).[2] The plan continued in effect until replaced in 1958 by a comprehensive ten year development program (Law No. 135, 1958).[3] Still, in 1960, a five year development plan with a detailed list of projects replaced the ten year development plan of 1958.

3. Financing Development.

Reference has already been made to the important role played by entrepreneurs in Syria in financing, out of accumulated war savings, industrial, agricultural and other development projects. Between 1950-1956, total private gross capital formation was 1434 mill. L.S. compared to 557 mill. L.S. of public gross capital formation during the same period. However,

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[1]Prior to 1954, the government financed public utility projects such as Latakia Port, drinking water for Aleppo, the automatic telephones and the start on the ambitious Ghab project.

[2]Syrian Republic, Speech of the Minister of Finance - 1955, (Arabic), Jamhurya Press, p. 17.
By 30 June 1958, approximately one third (160 mill.L.S.) of the total funds earmarked (686 mill. L.S.) were expended.

[3]U.A.R., Syrian Region, Speech of the Minister of Finance - 1958 (Arabic), Damascus Government Press, 1958, pp. 99.

since 1955, the rate of investment of the private sector started to decline and that of the public sector to rise rapidly. To finance the increase in public expenditures, Syria, expanded its ordinary and special budgets[1] adopted a number of extraordinary development budgets and obtained foreign loans.

The lack of a unified budget covering all public reciepts and expenditures has long been criticized because it adds unnecessary complications and impairs clarity of the fiscal position of the government.[2] The writer was faced with this difficulty when trying to gauge government development expenditure in and revenue from the agricultural sector during 1948-62. After reviewing all these budgets for a selected number of years, it was felt that a detailed consideration of (a) ordinary budgets, and (b) extra-ordinary budgets, would suffice to gauge, with a reasonable degree of accuracy, the following:

1. Absolute and relative growth of public revenue components from the agricultural sector.

2. The trend in ratio of public revenue from agricultural sector to total public revenue.

3. Growth in public development expenditures in the agricultural sector.

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[1] The special budgets comprise those attached to the State ordinary budget (Directorate General of Customs; Syrian University; Tobacco Monopol Administration, etc.), and independent budgets which neither constitute nor draw on the ordinary budget (Cereal Office; Exchange Office, etc.).

[2] I.B.R.D., op.cit., p. 266.

4. Absolute and Relative Growth of Public Revenue Components from the Agricultural Sector.

The agricultural sector contributes to the ordinary budget revenues via (a) direct taxes and fees, (b) indirect taxes, (c) income from government property.

Direct taxes and fees include a tax on livestock and fees on land irrigated by the government. Though in absolute amount this category grew from L.S. 6.5 mill. in 1948 to L.S. 12 mill. in 1962, it declined drastically, if taken as per cent of total direct taxes and fees in the ordinary budget i.e., from 37% in 1948 to 10% in 1962 (see table 31). The revenue from livestock exise is subject to possible fluctuations because of adverse natural conditions that could hit the animal population in Syria.[1]

Indirect taxes consist of the agricultural production tax and export duties. The agricultural production tax is a flat rate of 7% on principal domestic agricultural products except for fruits, vegetables, oils and oil extracts where the rate is 10% (Laws No. 384 and 437).[2] "The tax is not applied to products consumed by the farmers or used by them for seed, forage, or to produce sold in village for village consumption."[3] The imposition of export duties on cotton in 1952 helped in siphoning a portion of the high

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[1] The tax per head on animals is levied annually on specified animals, at the following rates (Law No. 25):

	L.S.
Sheep and goats	2.25
Camels	4.00
Buffalo	7.00
Pigs	11.00

See, U.A.R., Syrian Region, Official Gazette, Damascus: Government Press, No. 9, 8 May 1958, p. 7. This was a change from the previous following rates: sheep and goats (L.S. 1.5); camels (L.S. 2.2); Buffalos (L.S. 5.2); pigs (L.S. 8.2). See, U.N.R.W.A., Quarterly Bulletin of Economic Development, Government Budgets of Middle East Countries, Beirut, 1956, (mimeo.), p. 271.

[2] Ibid., No. 20, 29 April 1957, p. 2953 and No. 56, 1 August 1957, p. 5047.

TABLE 31

ACTUAL GOVERNMENT REVENUE FROM THE AGRICULTURAL SECTOR - 1948-1962 (000 L.S.)

Type	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958 x 1st.half	1958-59[x]	1959-60[x]	1960-61[x]	1961-62[x]
Direct taxes & Fees	6,491	6,085	4,328	7,239	10,150	8,616	9,408	9,519	11,803	2,418	8,286	16,572	12,750	9,750	12,000
Livestock tax	6,428	6,021	4,265	7,092	9,918	8,145	8,732	9,178	11,300	11,846	8,000	16,000	12,000	9,000	11,000
Fees on lands irri. by Govt.	63	64	63	147	232	471	676	341	503	572	286	572	750	750	1,000
% of Total Govt. Dir. Taxes & Fees	37%	28%	22%	29%	33%	23%	24%	19%	19%	17%	19%	18%	12%	10%	10%
Indirect Taxes	12,435	12,901	13,607	18,402	23,197	36,569	38,764	40,238	43,406	37,162	21,000	42,000	41,000	40,000	50,000
Tax on Agr.Prod.	12,435	12,901	13,607	18,402	23,197	22,447	27,347	21,680	30,646	21,432	10,000	20,000	25,000	24,000	30,000
Export Duties	-	-	-	-	-	14,122	11,417	18,558	12,760	15,730	11,000	22,000	16,000	16,000	20,000
% of Total Govt. Indirect taxes	16%	14%	17%	20%	22%	29%	26%	26%	26%	21%	22%	22%	19%	20%	22%
Income from Govt. Property	904	984	883	1,357	1,832	2,605	2,864	1,508	2,695	2,536	1,283	2,566	500	600	700
Land Rent	574	597	481	908	1,336	1,818	2,228	1,049	2,280	2,119	1,060	2,120	-	-	-
Selling of Agri. Public Land	37	71	43	31	19	309	[illegible]85	28	26	6	-	-	-	-	-
Returns from Forest.	141	105	182	236	291	322	350	229	182	247	123	246	300	300	350
Returns from Agri. Castors	152	131	177	182	186	156	201	202	207	184	100	200	200	300	350
% of Total Govt. Income from Prop.	21%	26%	20%	28%	34%	38%	41%	30%	42%	42%	40%	40%	16%	17%	19%
Total Govt.Revenue from Agri. Sector	19,830	19,970	18,818	26,998	35,179	47,790	51,036	51,265	57,904	52,136	30,569	61,138	54,250	50,350	62,700
% of Total Central Govt. Revenue[xx]	17%	15%	14%	17%	20%	22%	21%	19%	21%	17%	19%	17%	14%	13%	14%

[x]Estimate

[xx]Less extra-ordinary proceeds and oil revenues.

Sources: 1. For 1948-57 inclusive, Minister of Finance Speech - 1958, Damascus, Government Press, 1958.
2. For 1958062 inclusive, Syria, Statistical Abstracts, 1960 and 1962.

profits reaped by entrepreneurs as a result of the price rise associated with the Korean War. Revenue from export duties rose from L.S. 14.1 mill. in 1953 to an estimated L.S. 20 mill. in 1961-62, i.e., by 40%. The proceeds from agricultural production tax grew at a faster rate, because of the considerable expansion in cropped area, especially irrigated land. Between 1948 and 1962 revenue grew from L.S. 12.4 mill. to L.S. 50 mill., i.e., by 140%. The total indirect taxes on the agricultural sector as per cent of total indirect taxes in the ordinary budget grew from 16% in 1948 to 29% in 1953, largely because of the new export duties on cotton. Since 1953, this ratio assumed a declining trend and by 1961-62 stood at 22%. In absolute amounts the total value of indirect agricultural taxes rose from L.S. 12.4 mill in 1948 to an estimated L.S. 50 mill. in 1961-62.

5. Trend in Ratio of Central Government Revenue from Agricultural Sector to Total Central Government Revenue.

We can distinguish two opposing trends in the ratio of central government revenue from agricultural sector to total central government revenue (see table 31). Between 1948 and 1954 (with the exception of 1949 and 1950), the ratio rose from 15% to 21%. Since 1954, the ratio has been assuming a declining trend, i.e., dropped from 21% in 1954 to 14% in 1961-62. This does not mean that, in absolute amounts, the central government revenue from the agricultural sector declined also. On the contrary, it rose from L.S. 19.8 mill. in 1948 to an estimated L.S. 62.7 mill. in 1961-62. However, it does mean, that the relative growth of central government revenue outside the agricultural sector has been higher than that derived from the agricultural sector.

6. Implications for Development.

With the sizable increase in central government expenditures in Syria, it is obvious that more revenue is needed to finance the various undertakings. The government can choose between one or more of the following principal media:

(a) Raise tax rates and levy new taxes and/or improve methods of collection,

(b) Resort to internal borrowing,

(c)Secure foreign loans and grants

(d) Invest in relatively short maturing projects and reap the annual returns.

Syria, in the last decade, has resorted to the last three avenues and especially the last two. No serious attempts have been made to consider the prospects of the first. A student of the region has argued, that since the ratio of taxes to N.N.P. compares favorably with even some of the developed countries and since more progressive income taxes would "...have the effect of expanding public expenditure on development by reducing private expenditure in the same field,"[1] the use of taxation as a tool of development finance is limited. This ignores the distribution of the burden of government taxes between the different sectors of the economy and moreover assumes that private savings are constantly being channeled to the most remunerative projects or at least equally remunerative projects that may be undertaken by the Government.[2] This argument could have held,

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[1] [illegible] Asfour, op.cit., p. 91.

[2] Professor Asfour qualifies his statement by advising a re-allocation of national investment through (a) a transfer of investible funds from private to public sector, (b) redistribution of private investment in favor of socially more useful investment outlets.

possibly, prior to 1957 when private initiative dipped into its accumulated savings of the World War II and Korean War, and financed the industrial and agricultural expansion in Syria. However, it is no secret that since 1958, sizable capital took refuge in foreign countries and moreover the tempo of private investment has slowed down. The obstacles met by the private sector in both industry and agriculture, the advent of the government in a paramount manner into the economic scene after 1958, and the consequent nationalization of main industries, all commercial banks, and the execution of land reform programs have narrowed the outlets of private investment, especially, when the authorities refuse to define and delimit the boundaries of the public sector.

More important is the argument concerning the taxable capacity of the population. Table 32 shows that public revenue from the agricultural sector as per cent of agricultural income never exceeded 8.4% and was subject to fluctuations. On the other hand total central government revenue to N.N.P. grew from 11.6% in 1954 to an estimated 16.8% in 1961-62 (see table 31). Moreover, government revenue from non-agricultural sector as percent of income generated outside agriculture rose from 16% in 1954 to 23.6 in 1961-62. If we note that income generated in the agricultural sector during 1954-62 fluctuated between 30-40% of N.N.P., it seems, though the correlation is rough[1], that the agricultural sector has been favored vis-a-vis. the rest of the economy as far as the burden of public revenues is concerned.

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[1] This is a very rough estimate, since indirect taxes on consumer goods hit both the urban and rural areas. However, we are not here trying to reproduce exact figures but merely to indicate trends and their implications.

TABLE 32

CENTRAL GOVERNMENT REVENUE RATIO[a] to INCOME PRODUCED-AGRICULTURE VERSUS NON-AGRICULTURE
1954-1962

Year	(1) Central Govt. Rev. Mill.LS	(2) National[b] Income Mill. LS	(3) Agricult. Income Mill.LS	(4) Non-Agr. Income Mill.LS	(5) Govt. R. from Agric. Mill.LS	(6) Govt.R. from Non-Agric. Mill.LS	(1) as % of 2	(5) as % of 3	(6) as % of 4	(6) as % of 1
1954*	239	2044	871	1173	51	188	11.6	5.8	16	78.7
1955*	269	2823	604	1219	51	218	14.7	8.4	17.8	81.0
1956*	277	2305	936	1367	58	219	12.0	6.3	16.4	79.0
1957*	293	2376	1035	1341	52	241	12.3	5.0	17.9	82.3
1958**	157	1975	659	1316	31	126	-	-	-	-
1958-59	354	2133	721	1412	61	293	16.5	8.6	20.7	82.8
1959-60	378	2208	662	1546	54	324	17.0	8.3	20.9	85.7
1960-61	398	2428	829	1599	50	348	14.6	6.0	21.7	87.4
1961-62	438	2675	1084	1811	63	375	16.3	5.7	23.6	85.6

[a]Excluding extraordinary proceeds and oil revenue.

[b]National income figures at current prices.

*Actual figures.

**First six months of 1958.

Sources: 1. Syria, Speech of the Minister of Finance - 1958, op.cit.
2. Syria, Statistical Abstract (Issue 1960 and 1962).
3. Banque Centrale de Syrie, Bulletin Periodique, op.cit.

If we accept the thesis, that the major role of fiscal policy in underdeveloped countries is to raise the ratio of saving to national income,[1] then it is important to combat tendencies of rising consumption associated with a rise in income. It is accepted that the marginal propensity to consume among people in the low income brackets, especially peasants, is very high. With increased income, the peasant would consume more of his farm product and/or improve his food intake. The effect would be a decrease in the volume of agricultural production going into the monetized economy and little of his marginal income, if any, would be saved.

It is not our aim here to suggest a system of fiscal incentives and deterrents that would mobilize a good portion of the peasant's and landlord's income for purposes of development expenditure because such suggestions can be meaningful only when placed within and related to the whole Syrian fiscal system. Suffice it to say, that present agricultural taxes lack flexibility and are inadequate as sources of revenue for a government embarking on long-term development plans. For example, there is no tax in Syria either on agricultural land or agricultural income. The mere suggestions of taxes in the past were combated by the powerful political power of the landlords.

Even though the per capita income in agriculture is lower than non-agricultural, still the scope for increased government revenue from agriculture in Syria is promising. It is the only sector, that could and should contribute significantly to augment government revenue.

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[1]Raja J. Chelliah, Fiscal Policy in Underdeveloped Countries, London: George Allen and Unwin Ltd., 1960, p. 44.

TABLE 33

ACTUAL EXPENDITURES ON DEVELOPMENT PROJECTS IN AGRICULTURAL SECTOR - 1948-62[x]
(IN 000 L.S.)

	1948	1949	50-51	51-52	1953	1954	1955	1956	1957	1958 1st.half	58-59	59-60	60-61	61-6
Ordinary Budg.[a]	3766	4823	727	3618	3572	3724	4507	388	149	-	4370	4513	-	-
Irrigation	1915	1705	510	3348	3116	3201	4053	-	-	-	-	-	-	-
Land Reclam.	426	2127	-	-	-	-	-	-	-	-	- [b]	- [b]	-	-
Wells	256	757	100	169	106	303	-	-	-	-	-	-	-	-
Drinking Water	170	402	-	-	-	-	-	-	-	-	3750[b]	3750[b]	-	-
Miscellaneous	999	512	117	101	350	220	454	388	149	-	620	763	-	-
Extra Ordinary Budgets[c]	-	-	-	♦	-	-	5136	14953	7076	-	44300	80300	66044	49
Irrigation	-	-	-	-	-	-	4529	14,474	16137	-	42800	78800	52261	43
Land Survey	-	-	-	-	-	-	607	479	939	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	1500	1500	13783	6
Grand Total	3766	4823	1454	3618	13572	3724	9643	15341	7225	-	48670	84813	66044	49

[a] The ordinary budget figures for 1948-54 are actual.
[b] Include cities and villages.
[c] Except for 1958-59 and 1959-60, they are actual figures.

Sources: 1. Syria, Closed Accounts, Issues, 1948-54.
2. Syria, Ordinary Budget, Issues, 1958-1961-62.
3. Syria, Speech of the Minister of Finance, 1958, Damascus, 1958.
4. Extraordinary actual figures of 1960-61 and 1961-62, Syria, Ministry of Planning.

7. Growth in Public Development Expenditures in the Agricultural Sector.

The increase in the absolute amount of public investment in the agricultural sector has been great. From 1948 to 1961-62, actual investment increased from L.S. 5.8 mill. to L.S. 49.9 mill. (see table 53). Irrigation has absorbed the bulk of development appropriations. Geographically, the Orontes basin has been the main field of irrigation works. However, in the future, main expenditures on irrigation works are planned in the Jezira-Euphrates dam.

A comparison of tables 32 and 33 shows that the agricultural sector has been reaping increasingly the benefits of development expenditure during 1948-62, without shouldering its due part of the burden. Compared with other developing countries in the Middle East, Syrian planned development expenditure in the agricultural sector as per cent of total planned development expenditure is by far the highest (see table 54).

TABLE 54

PLANNED DEVELOPMENT EXPENDITURES AND THE SHARE OF AGRICULTURE (MILL. OF NATIONAL CURRENCY UNITS)

Country and Period	Total Investment	Investment in Agriculture	Agriculture as % of total investment
Cyprus (1962-66)	62	18.9	30.5
Iran (1962/63-67/68)	190.2	36.6	19.2
Iraq (1961/62-65/66)	556.3	115	20.3
Israel (1962-63)	532.5	143.2	27.4
Jordan (1962-67)	66.9	28.8	43.0
Lebanon (1962-66)	450.0	64	14.2
Syria (1960/61-64/65)	1720	875	50.9
Turkey (1962	4986	1200	24.0
U.A.R.(Egypt)(1960/61-64/65)	1696.9	392	23.1

Source: United Nations, Economic Development in the Middle East 1959-1961, op.cit., p. 17.

C. Contribution of Agriculture to Exports

1. International Trade and Economic Development:

The benefits of international trade that accrue to participant countries have been eloquently summed up by Professor Viner. "...The gain to a country or region from foreign trade consists in getting indirectly in exchange for those products in which a country has comparative advantage in production (or less comparative disadvantage) more goods, or better goods, than could be produced at home with the same quality of productive resources, it being understood that the possible gain may be used to obtain increased leisure as well as more or better commodities. Foreign trade thus involves some degree of specialization, or of "international division of labor."[1]

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[1] Jacob viner, International Trade and Economic Development, U.S.A., Free Press, 1952, p. 27.

The comparative advantage doctrine has been critisized mainly as being static and unfit to cope with the dynamic process of development. The critics marshalled three main arguments. First is the adverse cyclical and secular movement of terms of trade. Second, the presence of open and disguised unemployment in underdeveloped countries and the implication that output could be increased in Sector A, without a reduction in the output generated in the rest of the economy. Third, the backsetting effects that developed countries tend to inflict, as they grow, on the underdeveloped. Professor Haberler argues against all three alleged effects but admits that free trade can hinder development if there is present a genuine case of an infant industry.
See, Gottfried Haberler, International Trade and Economic Development, Cairo: National Bank of Egypt, 1959.

International trade is important to underdeveloped countries in relation to their balance of payments and their development efforts. "Foreign trade tends to be proportionately most important when incomes are lowest. Secondly, fluctuations in the volume and value of foreign trade tends to be proportionately more violent in that of underdeveloped countries and therefore... also more important in relation to national income."[1]

Aside from certain oil producing countries, agricultural exports of underdeveloped countries are their main source of foreign exchange receipts. Efforts to accelerate the rate of capital formation, necessarily involves sizable imports of capital goods and services. Capital movements, net income from services and unilateral transfers do not play an important role in most underdeveloped countries in determining their capacity to import goods and services. If in a given year, the agricultural sector fails to generate an exportable surplus it inflicts penalties on the balance of payments and the development efforts of the economy.

2. Importance of Foreign Trade in Syria:

Since the break down of the customs union of Syria and Lebanon in 1950, mainly due to divergent economic policies, Syria has followed increasingly a development policy directed at self sufficiency and incorporated a protective commercial policy. A good indication of a country's involvement in foreign trade is the ratio of imports plus exports of goods and services expressed as a percentage of NNP. "The measure does not reveal,

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[1] H.W. Singer, "The Distribution of gains between Investing and Borrowing Countries," A.E.R., XL, No. 2, May 1950, p. 475.

however, if foreign trade is concentrated in an enclave or whether it penetrates most segments of national economy; nor does it indicate the degree of essentiality of imports to a country."[1]

TABLE 56

SYRIA - IMPORTS AND EXPORTS OF GOODS AND SERVICES - 1955-1962
(MILL. L.S.)

Year	(1) Imports (M)	(2) Exports (X)	(3) Balance X - M	(4) M + X (1 + 2)	(5) N N P (at 1956 Prices)	(6) 4 as % of 5	(7) 2 as % of 1
1955	508	484	-24	992	2054	48.5	95.5
1954	743	655	-88	1398	2360	59.2	88.1
1955	810	711	-99	1521	2117	71.8	87.8
1956	819	832	+13	1651	2515	65.6	101.6
1957	729	719	-10	1448	2682	54.0	98.6
1958	743	629	-114	1372	2275	59.1	84.6
1959	732	666	-66	1398	2366	59.1	91.0
1960	921	709	-212	1630	2408	67.7	77.0
1961	751	602	-149	1353	2628	51.5	80.1
1962	897	897	-	1794	3298	54.4	100.0

Sources: 1) Syria, Statistical Abstract - 1962.
2) Banque Centrale De Syrie, Bulletin Periodique, op.cit.

On the average, between 1955 and 1962 exports plus imports of goods and services as per cent of NNP constituted 59.2% (See Table 56, Col. 6). This very high ratio exposed the economy to the vagaries of international

[1] Joseph D. Coppock, International Economic Instability, New York, MacGraw Hill Book Company, 1962, p. 84.

trade. As a result, national income, rate of saving and of capital formation, monetary stability and economic development programs can be affected. Obviously, the relationship between these variables and international trade are complex and dynamic. For our purpose, we are mainly concerned in its effect on the rate of capital formation.

Another important relationship is exports of goods and services as per cent of imports of goods and services (See Table 56, Col. 7). This shows the percent of imports, financed by export proceeds. Except for 1957 and 1962 there has been a consistent deficit. An important trend has been the rising importance of services[1] exports. This played an important role during 1958-61 in cushioning the effects of both decreased exports and increased imports. For, in spite of the endeavors of the government to restrict imports, after 1958, through foreign exchange restrictions, tariffs and devaluation of the Syrian pound, the sharp drop in domestic levels of agricultural production, during 1958-61, caused both a shrinkage of foreign exchange proceeds and forced the government to import sizable quantities of foodstuffs. Moreover, the initiations of a ten year development plan in 1958 necessitated the large imports of capital goods. Between 1958 and 1962[2] absolute value of imports of goods rose by 132 mill. L.S.

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[1]Increase in Services' exports was mainly due to increase in oil royalties.

Services Exports were the following During 1953-1962 (mill.L.S.)

1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
76	85	169	230	132	154	198	204	207	280

[2]Following the secession of Syria from the U.A.R. (September 28, 1961), the new regime liberalized foreign trade policies. This explains partly the growth in value of imports in 1962.

TABLE 37

SYRIA - BALANCE OF PAYMENTS
(MILLION U.S. DOLLARS)

Items	1957		1958		1959		1960		1961	
	Credit	Deb.	Cr.	Deb.	Cr.	Deb.	Cr.	Deb.	Cr.	Deb.
Goods & Services	197	203.6	155.6	206.1	155.5	195.4	163	236.6	144.4	209.9
1. Merchandize[1]	162.5	185	128	198.2	121	187.6	125.1	228.8	109.1	197.4
2. Non-Monetary Gold	5.6	-	-	3.5	.7	-	4.1	-	.5	-
3.& 4. Transportation	-	-	-	-	-	-	-	-	-	-
5. Travel	12.6	16.8	8.4	2.8	6.1	5.6	11.2	5.6	12.5	9.7
6. Investment Income	-	-	-	-	-	-	-	-	-	-
7. Government, n.i.e.	5.1	.8	7	.8	6.9	1.4	6.9	1.4	8.7	1.4
8. Other Services	13.2	1	12.2	.8	20.6	.8	15.7	.8	13.8	1.4
Netgoods and Services	-	6.6	-	50.5	-	40.1	-	73.6	-	65.5
Transfer Payments	13.7	-	23.7	-	35.5	-	44.3	-	43.4	-
9. Private	3	-	4.2	-	9.7	-	9.7	-	2.9	-
10. Central Government	10.7	-	19.5	-	25.8	-	34.6	-	40.5	-
10.1. Concession Payments by Foreign Oil Cos.	9.2	-	16.2	-	20.1	-	24.3	-	25.9	-
10.2. Budget Payment by U.A.R. (Egypt)	-	-	2.5	-	3.8	-	4.2	-	2.4	-
10.3 Other	1.5	-	.8	-	1.9	-	6.1	-	12.2	-
Net Transfer Payments	13.7	-	23.7	-	35.5	-	44.3	-	43.4	-
Net Total (1 through 9)	-	3.6	-	46.3	-	30.4	-	63.9	-	62.6
Net Total (1 " 10)	7.1	-	-	26.8	-	4.6	-	29.3	-	22.1
Capital & Monetary Gold	-	1.4	4.6	-	3.2	-	24.3	-	31	-
Non-monetary Sectors	-	2.8	-	4.2	2.7	-	.8	-	-	.9
11-13. Private	-	2.8	-	4.2	2.8	-	-	3.4	-	20.8
14. Local Government	-	-	-	-	-	-	-	-	-	-
15. Central Government	-	-	-	-	-	.1	4.2	-	19.9	-
15.1. Long-Term Liabs.	-	-	-	-	-	-	2.1	-	10.1	-
15.2. Syrian Pound Liabilities to U.S. Govt.	-	-	-	-	-	-	2.2	-	9.8	-
15.3. Liabilities to IBRD	-	-	-	-	-	-	.6	-	-	-
15.4. IBRD and IFC Subscriptions	-	-	-	-	-	.1	-	.7	-	-
Monetary Sectors	1.4	-	8.8	-	.5	-	23.5	-	31.9	-
16. Commer.Banks-Liabs.	-	2.8	-	9.2	16.9	-	6.0	-	-	18.9
17. Commer.Banks-Assets	2.5	-	2.4	-	-	11.5	2.0	-	12.7	-
18. Central Bank-Liabs.	-	.2	-	.5	2.5	-	20.9	-	20.7	-
18.1. To IMF	-	-	-	-	-	-	21.4	-	-	.7
18.2. Other	-	.2	-	.5	2.5	-	-	.5	21.4	-
19. Central Bank - Assets	1.9	-	15.9	-	-	7.2	-	5.4	17.4	-
19.1. IMF Subscrip.	-	-	-	-	-	-	-	8.5	-	-
19.2. Other Claims	7	-	15.9	-	-	12.2	3.1	-	17.4	-
19.3. Monetary Gold	-	5.1	-	-	5.0	-	-	-	-	-
Net Errors & Omissions	-	5.7	22.2	-	1.4	-	5	-	-	8.9

(1) Exports F.o.b.; Imports C.i.f.

Source: I.M.F., Balance of Payments Yearbook, vol. 14, May 1963.

TABLE 37

SYRIA - BALANCE OF PAYMENTS
(MILLION U.S. DOLLARS)

Items	1957 Credit	1957 Deb.	1958 Cr.	1958 Deb.	1959 Cr.	1959 Deb.	1960 Cr.	1960 Deb.	1961 Cr.	1961 Deb.
Goods & Services	197	203.6	155.6	206.1	155.3	195.4	163	236.6	144.4	209.9
1. Merchandise[1]	162.5	185	128	198.2	121	187.6	125.1	228.8	109.1	197.4
2. Non-Monetary Gold	5.6	-	-	3.5	.7	-	4.1	-	.3	-
3.& 4. Transportation	-	-	-	-	-	-	-	-	-	-
5. Travel	12.6	16.8	8.4	2.8	6.1	5.6	11.2	5.6	12.5	9.7
6. Investment Income	-	-	-	-	-	-	-	-	-	-
7. Government, n.i.e.	3.1	.8	7	.8	6.9	1.4	6.9	1.4	8.7	1.4
8. Other Services	13.2	1	12.2	.8	20.6	.8	15.7	.8	13.8	1.4
Netgoods and Services	-	6.6	-	50.5	-	40.1	-	73.6	-	65.5
Transfer Payments	13.7	-	23.7	-	35.5	-	44.3	-	43.4	-
9. Private	3	-	4.2	-	9.7	-	9.7	-	2.9	-
10. Central Government	10.7	-	19.5	-	25.8	-	34.6	-	40.5	-
10.1. Concession Payments by Foreign Oil Cos.	9.2	-	16.2	-	20.1	-	24.3	-	25.9	-
10.2. Budget Payment by U.A.R. (Egypt)	-	-	2.5	-	3.8	-	4.2	-	2.4	-
10.3 Other	1.5	-	.8	-	1.9	-	6.1	-	12.2	-
Net Transfer Payments	13.7	-	23.7	-	35.5	-	44.3	-	43.4	-
Net Total (1 through 9)	-	3.6	-	46.3	-	30.4	-	63.9	-	62.6
Net Total (1 " 10)	7.1	-	-	26.8	-	4.6	-	29.3	-	22.1
Capital & Monetary Gold	-	1.4	4.6	-	3.2	-	24.3	-	31	-
Non-monetary Sectors	-	2.8	-	4.2	2.7	-	.8	-	-	.9
11-13. Private	-	2.8	-	4.2	2.8	-	-	3.4	-	20.8
14. Local Government	-	-	-	-	-	-	-	-	-	-
15. Central Government	-	-	-	-	-	.1	4.2	-	19.9	-
15.1. Long-Term Liabs.	-	-	-	-	-	-	2.1	-	10.1	-
15.2. Syrian Pound Liabilities to U.S. Govt.	-	-	-	-	-	-	2.2	-	9.8	-
15.3. Liabilities to IBRD	-	-	-	-	-	-	.6	-	-	-
15.4. IBRD and IFC Subscriptions	-	-	-	-	-	.1	-	.7	-	-
Monetary Sectors	1.4	-	8.8	-	.5	-	23.5	-	31.9	-
16. Commer.Banks-Liabs.	-	2.8	-	9.2	16.9	-	6.0	-	-	18.9
17. Commer.Banks-Assets	2.5	-	2.4	-	-	11.5	2.0	-	12.7	-
18. Central Bank-Liabs.	-	.2	-	.3	2.3	-	20.9	-	20.7	-
18.1. To IMF	-	-	-	-	-	-	21.4	-	-	.7
18.2. Other	-	.2	-	.3	2.3	-	-	.5	21.4	-
19. Central Bank - Assets	1.9	-	15.9	-	-	7.2	-	5.4	17.4	-
19.1. IMF Subscrip.	-	-	-	-	-	-	-	8.5	-	-
19.2. Other Claims	7	-	15.9	-	-	12.2	3.1	-	17.4	-
19.3. Monetary Gold	-	5.1	-	-	5.0	-	-	-	-	-
Net Errors & Omissions	-	5.7	22.2	-	1.4	-	5	-	-	8.9

(1) Exports F.o.b.; Imports C.i.f.

Source: I.M.F., Balance of Payments Yearbook, vol. 14, May 1963.

3. Agricultural Sector and Foreign Exchange Proceeds.

Syria's capacity to import goods is determined by the availability of foreign exchange which in turn depends on (a) value of exports of goods (b) net value of services (c) net movement of capital (d) net unilateral transfers (e) available stock of foreign exchange, gold and other assets readily convertible into foreign exchange. Information pertaining to the first four items is best represented in a balance of payments. "The balance of payments of a country is a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries during a given period of time."[1]

Value of net services during 1957-1961 was 25.1, 35.9, 46.6, 54.4 and 48.7 million U.S. Dollars (See Table 37, Items 2-8 and 10.1). On the other hand net unilateral transfers, consisting mainly of emigrant remittances were insignificant during 1950-61.[2] Lastly, foreign loans were not utilized by Syria in any important proportions. The most noteworthy development in this field has been the much discussed long-term loan advanced by Western Germany to finance the Euphrates dam. However, the political instability did not allow a final agreement between the two countries.

All of this indicates the importance of exports of goods in determining the volume of exchange proceeds in a given year in Syria. The fact that, on the average, during 1951-62, 70% of exports of goods were agricultural poses

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[1]Charles P. Kindleberger, International Economies, Homewood: Richard D. Irwin, Inc., 1958, p. 16.

[2]For the balance of payment of Syria during 1950-1956, See Asfour, op.cit., pp. 36-37.

TABLE 38

MAIN GROUPS OF AGRICULTURAL EXPORTS - 1951-1962
VALUE IN (MILL. L.S.)

Items	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Agricultural Exports:	217	257	306	385	373	408	443	329	276	275	284	513
A. Foodstuffs	48	107	139	224	81	203	198	109	42	47	33	206
1. Meat & Fish	20.3	21.2	23.4	21.9	28.9	33.3	7.3	13.5	18.5	22.3	11.9	18.3
2. Fruits, Vegetables & Legumes	9.4	12.2	13.7	18.2	6.8	26.3	26	19.1	15.9	22.7	15.5	29.6
3. Cereals (Total)	16.9	73.5	101.9	184.0	36.5	143.3	149.6	76.6	7.7	16.2	7.3	158.5
a. Wheat	.9	29.8	46.0	70.3	10.6	56.7	88.6	44.7	-	-	-	74.2
b. Barley	4.2	29.4	24.8	85.5	7.5	65.3	51.9	12.9	-	-	3.6	75.3
c. Millet	2.2	3.3	9.7	4.5	3.5	3.8	2.7	3.0	1.6	6.9	.7	2.2
d. Other Cereals	4.3	5.9	11.4	14.5	4.8	5.7	6.4	4.2	1.8	1.1	1.4	2.7
4. Dairy Products, Eggs & Honey	7.3	5.1	10.0	9.2	10.1	11.8	14.9	11.8	4.3	8.2	1.6	4.1
B. Raw & Semi-manufactured Goods (Total)	168.5	150.1	167.2	160.6	290.6	204.6	245.2	220.1	233.6	227.3	250.3	306.9
1. Oil Seeds												
a. Cotton Seed	4.7	7.2	5.5	6.9	16.0	9.0	14.4	9.7	.1	275	11.4	11.2
B. Other Oil Seeds	1.3	-	1.1	1.3	1.9	2.8	1.6	1.7	15.1	14.3	4.4	5.0
2. Raw Textile Materials												
a. Cotton	116.5	124.3	134.7	124.6	233.9	149.0	190.9	171.6	169.7	180.4	209.0	264.4
b. Wool	39.4	14.7	31.5	23.3	32.9	33.9	29.9	26.3	32.4	17.9	17.5	15.3
c. Other	.6	-	-	-	-	1.8	1.7	1.4	2.5	2.5	1.8	1.9
3. Raw Skins and Hides	3.9	2.3	2.6	3.0	3.9	4.7	4.8	7.3	11.7	10.0	7.0	5.7
4. Guts	2.1	1.6	1.7	1.5	2.1	3.7	1.9	2.2	2.0	1.9	3.2	3.4
Exports of Goods	292	337	408	570	542	602	587	475	468	505	395	617
Imports of Goods	418	444	484	673	723	745	665	730	709	898	711	862
1. Agricultural Exports as % of Goods Exports	74.3	76.2	75	67.5	68.8	67.7	75.5	69.2	58.9	54.4	71.6	83.1
2. Foodstuffs Exports as % of Agricultural Exports	22	41	45	69	24	50	45	33	15	17	11	40
3. Foodstuffs Exports as % of Goods Exports	16.4	31.7	34	39.6	14.9	33.7	33.7	22.9	8.9	9.3	8.1	33
4. Ratio of Merchandise Export to NNP				27.8%	29.7%	26.1%	24.7%	24%	21.9%	22.8%	16.2%	23%
5. Ratio of Merchandise import to NNP				32.9%	39.6%	32.3%	27.9%	30.9%	33.2%	40.6%	29.2%	32.2%

Sources: 1) For 1956-62, Syria Statistical Abstracts.
2) For 1951-55, Foreign Trade Statistics.

important problems to Syria (See Table 38). "The inherent instability in the yield of cereals (and to a lesser degree of cotton) together with the notoriously unstable international price of cotton (and to a lesser degree cereals) pose the greatest challenge and risk to any predetermined and planned expenditure on development, through their influence on the availability of foreign exchange."[1]

For purposes of analysis, it is convenient to distinguish between two classes of agricultural exports (a) foodstuffs (cereals, meat, etc.) (b) raw materials (cotton, wool, etc.). Value of foodstuffs exports as per cent of agricultural exports has been subject to violent swings. In 1954 it was 59% while in 1961 it dropped to 11% (See Table 38). This has been the primary cause behind fluctuations in agricultural exports as per cent of total merchandise export. The effect would have been greater if it were not for the relative stability in raw agricultural exports (Cotton).

Fluctuations in value can result because of changes in volume and/or prices. Changes in volume of agricultural exports can result because of (a) change in domestic production levels (b) dynamic changes of a long-run nature on the international market like a shift in demand schedule brought about by possible changes in tastes, incomes, etc., of major importers of the traded commodities. In Syria, the severe fluctuations in domestic output have been the major factor behind fluctuations in value of agricultural exports. The dependence of foodstuffs on rainfall, in Syria, has been responsible for the ebb and flow in volume of domestic production (See Graph II). The quantum index of plant exports (1952 = 100) fell from 255 in 1957

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[1] Ibid., p. 55.

TABLE 39

ANNUAL INDEX NUMBERS OF FOREIGN TRADE, QUANTUM AND UNIT VALUE 1953 - 1962
(BY ORIGIN FOR EXPORTS AND USE OF GOODS FOR IMPORTS) 1952 = 100

Exports and Imports	Unit Value										Quantum								
	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1953	1954	1955	1956	1957	1958	1959	1960	1961
Exports	83	89	90	91	83	80	86	70	83	89	141	163	176	183	207	187	171	189	164
1. Plant Prod.	79	91	92	90	78	75	84	62	76	85	148	170	168	167	235	168	150	156	177
2. Animal "		101	96	101	98	101	91	89	116	126	133	148	196	197	131	309	91	89	116
3. Cement & Other Mineral Ores	90	87	83	70	65	70	64	100	57	57	185	200	308	106	103	481	583	213	23*
4. Industrial Products	84	71	79	85	91	81	91	83	84	76	120	142	187	236	160	150	143	167	138
Imports	97	94	92	101	93	95	96	134	148	140	104	146	151	154	125	158	151	168	128
1. Prod. for Agricult.	94	112	75	103	86	109	66	84	117	111	53	83	135	87	58	62	124	371	212
2. Prod.for Indust.	91	86	87	89	91	101	85	134	154	132	116	160	168	170	135	183	163	164	136
3. Products for Consumpt.	105	99	102	114	97	91	114	146	149	156	104	144	135	151	129	150	143	127	98

Source: Syria, Statistical Abstracts, (various issues).

to 150 in 1959 (See Table 39). Fluctuations in unit value index of plant exports (1952 = 100) not only was of minor importance as a cause of fluctuations in value of agricultural exports but its temporary improvement in 1959 imparted a stabilizing element to the value of agricultural exports (See Table 39).

4. Composition of Agricultural Exports.

The three main agricultural exports are (a) cotton, (b) Wheat, (c) barley. While domestic production levels of wheat and barley depend directly on amount and pattern of rainfall, cotton suffers from the worm. Reference to table 40 shows that fluctuations in production were most severe in the case of barley followed closely by wheat. Cotton suffered two main drops. In 1955, the cotton worm affected the harvest in Jezireh which prompted the government to establish the Cotton Office. In 1958, the drought affected mainly rain-fed cotton. The relative fluctuations in volume of cotton is very small compared to wheat and barley (See Graph III).

Since 1952, the prices of cotton started to decline; reaching the lowest point in 1958 (1852 L.S. per ton of ginned cotton) compared to 4855 L.S. in 1951. The effect of this downward trend in cotton prices on total value of cotton exports were not as marked as could be expected because of a general opposite change in volume of exports (See Table 40). The trend in the prices of wheat and barley ran parallel to each other. Needless to say, the decline in value of exports of these two commodities was caused by violent swings in volume rather than prices. In 1957, 553 (000 tons) of wheat and 531 (000 tons) of barley were exported while in 1959 and 1960 exports were nil (See Table 40).

TABLE 40

SYRIA TRENDS IN VALUE OF PRODUCTION, EXPORTS & UNIT VALUE OF EXPORTS
1951 - 1962

	Wheat				Barley				Cotton			
Year	(1) Domestic Product. 000 Tons	(2) Exports 000 Tons	Unit Value of Exports L.S./Ton	2 as Per cent of 1	(1) Domestic Product. 000 Tons	(2) Exports 000 Tons	Unit Value of Exports L.S/Ton	2 as Per cent of 1	(1) Domestic Product. 000 Tons	(2) Exports 000 Tons	Unit Value of Exports L.S/Ton	2 as Percent of 1
1951	491	2.7	317	.55	155	17	245	10.9	n.a.	24	4853	n.a.
1952	900	100	297	11.1	467	140	210	29.9	"	38	3271	"
1953	870	180	255	20.7	472	153	162	32.4	"	54	2494	"
1954	965	233	300	24.1	635	431	198	67.8	"	42	2966	"
1955	438	33	321	7.3	137	29	260	21.2	"	89	2627	"
1956	1051	179	317	16	462	302	217	65.3	"	58	2656	"
1957	1354	353	251	26	721	331	157	45.9	"	82	2300	"
1958	562	177.8	250	31.7	228	89	145	39	"	78	2191	"
1959	632	-	-	-	218	-	-	-	"	91	1852	"
1960	555	-	-	-	156	-	-	-	97	81	2157	83.5
1961	757	-	-	-	335	25	145	7.5	111	88	2337	79.3
1962	1374	211	351	15.3	798	390	193	48.8	124	113	2307	91.1

Sources: 1) Syria, Statistical Abstracts.
2) Syria, Foreign Trade Statistics.

5. Pattern of Trade:

a. Pattern of Exports:

More than 85% of Syria's exports of goods were absorbed by (a) Arab countries, (b) Socialist countries, (c) European Common Market countries and (d) Rest of Europe.

The Arab countries have held the first place as importers of Syria's products during 1952-1961. In 1959, 45.6% of total Syrian exports poured into Arab markets (See Table 41). Intraregional trade is of special importance to Syria. The only persistent surplus in the balance of merchandize trade during 1952-62, has been reaped by Syria from trade with the Arab countries (See Table 41).[1] Syria's intraregional trade is already well developed.[2] Possibilities for greater benefits to Syria and other Arab countries from expansion in intraregional trade do exist, but their realisation depends on collective effort. Advocates of closer Arab cooperation stress the importance of creating a common Arab market that would benefit the Arab countries not only through greater specialization along relative comparative advantage lines but members would also enjoy benefits of internal and external economies of scale as a result of direct interdependence of industries.

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[1] Lebanon is the best customer in the Group. During 1952-62, Syria's trade balance with Lebanon showed the following surpluses (Mill.L.S.):

1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
+ 18	+40.2	+64.9	+61.4	+ 59	+68.5	+19.5	+25.4	+19.8	+18	51.6

[2] For suggestions and problems of expansion of intraregional trade in the Middle East see, F.A.O., Production and Trade in the Near East, Rome: 1956.

TABLE 41

GEOGRAPHICAL DISTRIBUTION OF FOREIGN TRADE - 1952-1962
(MILL. L.S.)

	Arab Countries					Socialist Countries					European Common Market Countries					Rest of Europe					U.S.A. & Canada					Rest of the World				Tot
Year	(1) Exps. of Goods	(2) Imps. of Goods	(3) Def't (-) or Surp. (+)	(4) 1 as % of 31	(5) 2 as % 32	(6) Exps. of Goods	(7) Imps. of Goods	(8) Def't (-)or Surp. (+)	(9) 6 as % of 31	(10) 7 as % of 32	(11) Exps. of Goods	(12) Imps. of Goods	(13) Def't (-)or Surp. (+)	(14) 11 as % of 31	(15) 12 as % of 32	(16) Exps. of Goods	(17) Imps. of Goods	(18) Def't (-)or Surp. (+)	(19) 16 as % of 31	(20) 17 as % of 32	(21) Exps. of Goods	(22) Imps. of Goods	(23) Def't (-)or Surp. (+)	(24) 21 as % of 31	(25) 22 as % of 32	(26) Exps. of Goods	(27) Imps. of Goods	(28) Def't (-)or Surp. (+)	(29) 26 as % of 31	(30) 27 as % of 32	(31) Total Exps. Goods	(32) Total Imps. Goods
1952	121.7	88.4	+33.3	38.1	19.2	5.9	16.6	-10.7	1.9	3.6	79.5	125.2	-45.7	24.9	27.3	83.8	110.9	-27.1	26.2	24.1	16.0	69.6	-53.6	5.0	15.2	12.1	48.7	-36.6	13.8	10.6	319.5	459.4
1953	148.0	95.4	+57.6	39.4	20.7	-	16.8	-16.8	-	3.6	135.5	154.3	-18.8	36.1	33.4	52.7	94.5	-41.8	14.0	20.5	20.9	58.9	-38.0	5.6	12.8	18.7	41.8	-23.1	5.0	9.1	375.8	461.7
1954	180.5	114.1	+66.4	38.8	18.0	3.5	31.7	-28.2	.9	5.0	156.7	219.3	-62.6	33.7	34.6	56.1	127.7	-71.6	12.1	20.2	19.2	80.0	-60.8	4.1	12.6	49.7	60.9	-11.2	10.7	9.6	465.7	633.7
1955	169.7	131.7	+38.0	35.8	19.5	8.0	27.4	-19.4	1.7	4.0	183.4	206.3	-22.9	38.7	30.5	52.0	136.1	-84.1	11.0	20.1	21.3	78.8	-57.5	4.5	11.6	39.1	96.6	-57.5	8.2	14.3	473.5	676.9
1956	208.5	169.7	+38.8	40.4	24.6	48.7	34.3	+14.4	9.4	5.0	175.3	196.6	-21.3	34.0	28.5	31.0	130.4	-99.4	6.0	18.9	21.2	76.1	-54.9	4.1	11.0	31.2	82.9	-51.7	6.1	12.0	515.9	690.0
1957	203.3	121.4	+81.9	37.1	19.7	103.7	57.2	+46.5	18.9	9.3	181.2	194.9	-13.7	33.1	31.6	20.7	93.4	-72.7	3.8	15.2	21.4	71.7	-50.3	3.9	11.6	17.7	77.5	-59.8	3.2	12.6	548.0	616.1
1958	155.4	123.9	+31.5	35.6	16.4	135.1	95.4	+39.6	30.9	12.6	98.0	233.0	-135.0	22.5	30.9	14.0	144.8	-130.8	3.2	19.2	14.9	65.0	-50.1	3.4	8.6	19.2	93.1	-73.9	4.4	12.3	436.6	755.2
1959	193.8	120.2	+73.6	45.6	17.3	46.0	80.0	+34.0	10.8	11.5	92.4	239.8	-147.4	21.8	34.6	21.4	129.5	-108.1	5.0	18.7	26.6	50.9	-24.3	6.3	7.3	44.4	73.6	-29.2	10.5	10.6	424.6	694.0
1960	180.7	143.0	+37.7	44.6	16.7	80.4	78.0	+ 2.0	19.8	9.1	72.8	302.3	-129.5	18.0	35.2	23.0	148.8	-125.8	5.7	17.3	12.2	120.7	-108.5	3.0	14.1	36.1	65.5	-29.4	8.9	7.6	405.2	854.0
1961	138.3	110.3	+28.0	35.0	15.5	100.3	76.8	+23.5	25.4	10.8	71.8	192.7	-120.9	18.2	29.1	41.2	108.5	-67.4	10.4	15.3	13.4	110.5	- 97.1	3.4	15.5	29.7	112.4	-82.7	7.5	15.8	394.7	711.3
1962	174.3	99.0	+75.2	28.2	11.5	147.5	122.2	+25.3	23.9	14.2	201.7	260.2	- 58.5	32.7	30.2	58.9	169.8	-110.9	9.5	19.7	8.0	107.8	-99.8	1.3	12.5	26.9	103.3	-76.4	4.4	12.0	617.2	862.3

Source: Banque Centrale De Syrie, Bulletin Periodique, op.cit.

TABLE 41

GEOGRAPHICAL DISTRIBUTION OF FOREIGN TRADE - 1952-1962
(MILL. L.S.)

Socialist Countries						European Common Market Countries				Rest of Europe					U.S.A. & Canada				Rest of the World				Total			
(5) % 2 as % 32	(6) Exps. of Goods	(7) Imps. of Goods	(8) Def't (-)or Surp. (+)	(9) 6 as % of 31	(10) 7 as % of 32	(11) Exps. of Goods	(12) Imps. of Goods	(13) Def't (-)or Surp. (+)	(14) 11 as % of 31	(15) 12 as % of 32	(16) Exps. of Goods	(17) Imps. of Goods	(18) Def't (-)or Surp. (+)	(19) 16 as % of 31	(20) 17 as % of 32	(21) Exps. of Goods	(22) Imps. of Goods	(23) Def't (-)or Surp. (+)	(24) 21 as % of 31	(25) 22 as % of 32	(26) Exps. of Goods	(27) Imps. of Goods	(28) Def't (-)or Surp. (+)	(29) 26 as % of 31	(30) 27 as % of 32	(31) Total Exps. Goods	(32) Total Imps. Goods	(33) Def't (-)or Surp. (+)	(34) 31 as % of 32
19.2	5.9	16.6	-10.7	1.9	3.6	79.5	125.2	-45.7	24.9	27.3	83.8	110.9	-27.1	26.2	24.1	16.0	69.6	-53.6	5.0	15.2	12.1	48.7	-36.6	13.8	10.6	319.5	459.4	-139.9	74.6
20.7	-	16.8	-16.8	-	3.6	135.5	154.3	-18.8	36.1	33.4	52.7	94.5	-41.8	14.0	20.5	20.9	58.9	-38.0	5.6	12.8	18.7	41.8	-23.1	5.0	9.1	375.8	461.7	-85.9	81.5
18.0	3.5	31.7	-28.2	.9	5.0	156.7	219.3	-62.6	33.7	34.6	56.1	127.7	-71.6	12.1	20.2	19.2	80.0	-60.8	4.1	12.6	49.7	60.9	-11.2	10.7	9.6	465.7	633.7	-168.1	73.9
19.5	8.0	27.4	-19.4	1.7	4.0	183.4	206.3	-22.9	38.7	30.5	52.0	136.1	-84.1	11.0	20.1	21.3	78.8	-57.5	4.5	11.6	39.1	96.6	-57.5	8.2	14.3	473.5	676.9	-203.4	69.9
24.6	48.7	34.3	+14.4	9.4	5.0	175.3	196.6	-21.3	34.0	28.5	31.0	130.4	-99.4	6.0	18.9	21.2	76.1	-54.9	4.1	11.0	31.2	82.9	-51.7	6.1	12.0	515.9	690.0	-174.1	74.7
19.7	103.7	57.2	+46.5	18.9	9.3	181.2	194.9	-13.7	33.1	31.6	20.7	93.4	-72.7	3.8	15.2	21.4	71.7	-50.3	3.9	11.6	17.7	77.5	-59.8	3.2	12.6	548.0	616.1	- 68.1	88.9
16.4	135.1	95.4	+39.6	30.9	12.6	98.0	233.0	-135.0	22.5	30.9	14.0	144.8	-130.8	3.2	19.2	14.9	65.0	-50.1	3.4	8.6	19.2	93.1	-73.9	4.4	12.3	436.6	755.2	-318.6	57.8
17.3	46.0	80.0	+34.0	10.8	11.5	92.4	239.8	-147.4	21.8	34.6	21.4	129.5	-108.1	5.0	18.7	26.6	50.9	-24.3	6.3	7.3	44.4	73.6	-29.2	10.5	10.6	424.6	694.0	-269.4	61.2
16.7	80.4	78.0	+ 2.0	19.8	9.1	72.8	302.3	-129.5	18.0	35.2	23.0	148.8	-125.8	5.7	17.3	12.2	120.7	-108.5	3.0	14.1	36.1	65.5	-29.4	8.9	7.6	405.2	854.0	-453.1	47.2
15.5	100.3	76.8	+23.5	25.4	10.8	71.8	192.7	-120.9	18.2	29.1	41.2	108.5	-67.4	10.4	15.3	13.4	110.5	- 97.1	3.4	15.5	29.7	112.4	-82.7	7.5	15.8	394.7	711.3	-316.6	55.5
11.5	147.5	122.2	+25.3	23.9	14.2	201.7	260.2	- 58.5	32.7	30.2	98.9	169.8	-110.9	9.5	19.7	8.0	107.8	-99.8	1.3	12.5	26.9	103.3	-76.4	4.4	12.0	617.2	862.3	-245.1	71.5

yrie, Bulletin Periodique, op.cit.

The European Common Market Countries come second in importance in relation to Syria's exports of goods. Cotton and wheat are their main imports from Syria. France is the first ranking customer of cotton in the group while Syrian hard wheat is especially suited to Italy's food industries. A continuous deficit has been experienced by Syria during 1952-1962 with these countries.

Syria's exports to rest of Europe group and Socialist Countries are inversely related. During 1952-62, Syria's exports to rest of Europe as per cent of total exports dropped from 26.2% to 9.5% while for the same period the Socialist Countries share rose from 1.8% to 25.9%. Economic considerations played a minor role compared to the political in this drastic shift in the destination of Syria's exports. The advent of the U.S.S.R. into the political as well as the economic scene of the Middle East following the famous Czechoslovakian arms deal with Egypt in 1955 and the Suez Canal crisis in 1956, was the main factor behind the shift. Most of the trade between Syria and the Socialist countries has been on barter basis. For example, the oil refinery of Homs was built by Czechoslovakia and paid for in cotton while sizable arms shipments to Syria in 1957 were also on barter basis. Since 1956, Syria has enjoyed a surplus from import-export activity with the Socialist countries.

b. Pattern of Imports:

During 1952-1962, Syria has experienced a chronic deficit in the balance of merchandise trade with her main suppliers. These are the following: (a) European Common Market Countries, (b) Rest of Europe, (c) U.S.A. and Canada.

The European Common Market Countries share of Syria's imports as per cent of total imports fluctuated between a minimum of 27.1% in 1961 and a maximum of 55.2% in 1960 (See Table 41). In absolute amounts the deficit reached its highest in 1960 (229.5 Mill. L.S.) and lowest in 1957 (73.7 Mill. L.S.). West Germany, France and Italy are Syria's main exporters in this group.

Rest of Europe share of Syria's total imports has been subject also to fluctuations, i.e., in 1952, it was 24.1% compared to 15.5% in 1961. England has occupied the first place in this group during the whole period. Syria's main imports from this group has been machinery of various kinds, cars and semi-durable goods.

U.S.A. and Canada occupy an important place as contributors to Syria's deficit. This is because these two countries account for a good percentage of Syria's imports while they absorb a relatively small per cent of her exports. In 1952, 15.1 of Syria's total imports originated there while only 5% of Syria's total exports were imported by U.S.A. and Canada (See Table 41). In 1962, the situation worsendd and the respective percentages for imports and exports were 12.5% and 1.3% respectively. In absolute amounts the deficit rose from 53.6 (Mill.L.S.) in 1952 to 99.8 (Mill. L.S.) in 1962.

The deficit gap with these three groups of countries not only exhibited a chronic nature but more important has been widening. If we take the years 1957 and 1962, both good harvest years, we notice that while the deficit was 156.7 (Mill. L.S.) in 1957 it shot to 269.2 (Mill. L.S.), in 1962, i.e. by more than 100% increase. To say that Syria should try to close this gap in the future as much as possible, is not only saying what is

desirable and beneficial to the development efforts of the Syrian economy, but also stressing the obvious. More relevant are the means that should be followed. Already, Syria has resorted to foreign exchange restrictions, high tariff walls on luxuries and more recently devalued the Syrian pound. One can hardly suggest other direct measures. The main remaining alternative is to increase the value of exports of goods and services so as to improve Syria's capacity to import. This calls for a long term program of diversification of exports, reduction in the severe fluctuation in value of foodstuffs exports and exploitation of tourism industry.

c. Terms of Trade:

Changes in terms of trade are of special importance to developing countries because of its possible effect on their national income, balance of payments and import capacity. "Improvement in terms of foreign trade, i.e., in the relation of export prices to import prices affect the national income of underdeveloped countries as definitely as improved technology, increases in employment or changes from less productive to more productive employment such as occur in the process of industrialization... A favorable change in terms of trade, by providing the opportunity of obtaining an increased quantum of imports for a given quantum of exports, enables an underdeveloped country to obtain its previous quantum of imports for a reduced quantity of exports and to utilize the domestic resources thus set free for purposes of economic development."[1] This does not mean,

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[1] United Nations, Relative Prices of Exports and Imports of Underdeveloped Countries, New York, 1949, p. 121.

however, that changes in terms of trade are the only factor or most important factor in determining national income and availability of funds.

The favorable change in Syria's terms of trade during 1949-1954, particularly in the prices of cotton, was of extreme importance in creating the ability and desire to accelerate the rate of capital formation witnessed during the period. Larger incomes of landlords and merchants made possible a larger volume of savings which were reploughed in continous bounds in agricultural and other projects. However, after 1957, Syria's commodity terms of trade, showed a relatively small downward trend compared to the bare year, 1953, (See Table 42). This documents our previous assertion that fluctuations in international prices were of small importance, since 1958, in their effect on Syria's capacity to import, on national income, internal price stability and capital formation.

6. Implications for Development:

Syria experienced two distinctive periods as far as foreign exchange proceeds from exports of goods are concerned. During 1949-1957, the favorable change in the terms of trade coupled with good harvest years, except 1951 and 1955, enabled Syria to finance its rising imports of capital[1] and consumption goods mainly through exports of goods. In contrast, during 1958-61, the above two mentioned favorable trends worked in the opposite direction, though with different intensities. While exports of goods as

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[1] Imports of capital goods, continued to rise throughout the period, only to exhibit a relatively small drop in 1956. This fall reflects the decline in the rate of private investment in both agriculture and industry.

percent of imports of goods was, on the average, during the normal and good harvest years of 1952-1957 (1955 excluded) 78.6%, it dropped to 58.5% during the bad harvest years of 1955, 1958-61.[1] It can be greatly doubted whether the favorable conditions of 1949-55, would repeat themselves in the immediate future. On the contrary, the long-term trend in the terms of trade has been moving against primary producing countries.[2]

TABLE 42

PERCENTAGE VARIATION OF SYRIA'S COMMODITY TERMS OF TRADE INDICES FROM THE BASE YEAR AND FROM YEAR TO YEAR 1938, 1939, 1951-1960, (1955 = 100)

Year	Commodity Terms of Trade	Percentage Variation from 1955	Year to Year Percentage Variation
1938	94.47	- 5.5	
1939	82.98	-17.0	-12.2
1951	145.18	+45.2	+75.0
1952	115.87	+15.2	-20.1
1955	100.00	0	-13.7
1954	108.05	+ 8.1	+ 8.1
1955	106.85	+ 6.8	- 1.1
1956	108.16	+ 8.2	+ 1.2
1957	96.48	- 3.5	-10.8
1958	96.36	- 3.6	- 0.1
1959	97.74	- 2.3	+ 1.4
1960	91.65	- 8.4	- 6.5

Source: Nabil Khatib, Syria's Terms of Trade, M.A. Thesis (Typescript), A.U.B., 1962, p. 141.

[1]Averages derived from Table 41.

[2]For development purposes, it is the single factoral terms of trade that is important rather than the commodity terms of trade. "The single factoral terms of trade represent the price of imports relative to price of exports adjusted for changes in productivity of a country's factors in production of exports." If, for example, the commodity terms of trade deteriorate but productive efficiency increase more, then the country's position is better off in real terms. Such situation was experienced by England during the 19th Century. See, Kindleberger, op.cit., p. 167.

Net services receipts, increased short term liabilities, U.A.R. contribution to the budget and reduction in official holdings of foreign exchange, were utilized to finance the widening deficit in the balance of merchandise trade during 1958-61. (See Tables 58 and 41).

The dependence of Syria on agricultural crops, which are subject to erratic fluctuations in domestic production levels and, to a lesser extent, international prices, as her main source of foreign exchange not only affects the capacity of the country to import necessary capital goods and services but also can affect investment criteria in the agricultural sector. Syrian internal prices of agricultural commodities are directly linked to international prices. Calculation of cost-benefit ratios depend on the opportunity cost of the investment on the one hand and the expected future prices of the commodities. Persistent fluctuation in international prices pose difficulties for the planners when trying to determine cost-price relationships of different projects. Year to year adjustment becomes unavoidable. Moreover foreign exchange earnings and holdings, "...set a limit to the possible volume of expenditure on development from local resources which is compatible with internal price stability."[1] Indeed, in a development program, of crucial importance is the time gap between investment and realization of returns. Investment funds are expended broadly on (a) wages and salaries, (b) raw materials and equipment. The new added purchasing power in the hands of labor creates a pressure primarily on consumption goods. In the case of Syria, probably most of the added demand would

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[1] Asfour, op.cit., pp. 57-58.

be satisfied from normal agricultural surplus which would result, however, in a reduction in the volume of available agricultural exports. Obviously, if Syria were to possess a stable and sizable source of foreign exchange comparable to Iraq's oil royalties, for example, then any domestic pressure on consumption goods would be counterbalanced by imports. However, the fact that foreign exchange availability is primarily determined by exports of goods which in turn depend on agricultural exports poses a great difficulty to planners in trying to estimate foreign exchange availability and consequently to balance between the competitiveness of capital and consumption goods imports on foreign exchange.

Escape from fluctuations of export proceeds entails a long-term plan. Foremost is diversification of Syria's agricultural and other exports. Second, it is important to stabilize agricultural yields which implies extension of irrigated area. The high ratio of merchandise exports to exports of goods and services can be tackled through promotion of tourism industry and other services.

CONCLUSION

We have already recapitulated our findings concerning the past developments, problems and prospects of the agricultural sector during 1948-62 (See Chapter III). What remains is a two fold task. First, to highlight and relate our main findings with regard to the contribution of the agricultural sector to (a) food supplies, (b) public revenue, (c) foreign exchange proceeds. Second to reveal the implications of the findings to the development efforts of the Syrian Economy.

The main findings with respect to the contribution of agriculture in the process of development can be summarized in the following points:

a. Food Supplies.

1. Agriculture has been able during the last decade, except the period of 1959-61, to provide the rapidly rising population with necessary food supplies. However, there has not been any significant improvement in the levels of apparent consumption, except for 1962, as evidenced by per capita apparent consumption (Table 27, Col. 14).

2. Fluctuations in domestic output of food products has been the major factor behind fluctuations in apparent food consumption.

3. The most important finding, in relation to development, was that of the rising ratio in the value of food products to income generated in the agricultural sector (Table 29, Col. 5). This means that the normal surplus of food products produced and which was made possible through expansion of cultivated area and not in response to improved

productivity, has been constantly decreasing due to higher consumption levels associated with increase in population. Assuming no change in tastes and other autonomous changes, the rate of increase in demand for food can be designated by $D = P + ng$ where (P) and (g) stand for the rate of increase in population and per capita income respectively while (n) represents the income elasticity of demand for food products. A change in one or more of these magnitudes, other things being equal, will cause a shift in the demand schedule. Thus, if rising population is accompanied by a rise in per capita income, given the high income elasticity of demand for food in underdeveloped countries, they tend to aggravate each other in their claim on food products. This implies that either resources, mainly capital, have to be transferred from the rest of the economy into the agricultural sector and/or a better allocation of existing resources within the sector should take place.

In Syria, a sparsely populated country relative to cultivable land resources, future increase and stability in food supplies depend mainly on the expansion of the irrigated area and/or improved productivity. The first calls for state intervention due to the lumpiness of investment and the relatively long gestation period of the projects. The second necessitates vertical improvements, like supply of fertilizers, credit, better seeds, etc., and more important the creation of attitudes and institutions conducive to such a change. In this context land reform and cooperatives have a crucial role to play. One of the main effects of land reform has been the increase in the income of the peasant. The tendency of the peasant is always to improve his food intake rather than

his productive capacity. This exerts further pressure on the available food supplies.

If the rise in population catches up with available food supplies, while the government is embarking on a development program of long gestation period (Euphrates dam), then the whole development program may be jeopardized. Inflationary pressure brought about by an increase of purchasing power of workers and rising money income of land reform beneficiaries, would force a rise primarily of food prices. Aside from the possible distortion of the investment pattern and the plight of the fixed income groups, inflation feeds on itself and involves still higher consumption levels and diverts foreign exchange resources to food imports while simultaneously causing a reduction of food exports.

b. Public Revenues.

1. In the field of public finance, the record of the agricultural sector as a source of public revenues has been poor during 1948-62. Government[1] revenue from the agricultural sector as per cent of toal revenue climbed at first from 17% in 1958 to 21% in 1956 and then dropped to 14% in 1962. The same trend was exhibited in the ratio of central government revenue to income generated in the agricultural sector during 1954-1961-62. This was in contrast to the rising ratio of government revenue from non-agriculture Sectors to income generated there which rose from 16% in 1954 to 23.6% in 1961-62 (See Table 32).

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[1] Government is taken to mean central government only.

It seems that agriculture has been favored vis-a-vis the rest of the economy in the process of development as far as the burden of public revenues are concerned. This becomes clearer when we remember that government revenue from non-agriculture sectors as per cent of total government revenue rose from the already high 78.8% in 1954 to 85.6% in 1961-62 (See Table 32).

The arguments against heavier taxation of agriculture have been primarily based on the beliefs that the taxable capacity of the peasant is small since his average income is lower than the rest of the economy; more over, to tax the incomes of landlords and other entrepreneurs who have been the main savers and investors would only mean a mere transfer of investible funds and no augmentation in volume.

Any contemplated tax on agricultural income should allow a deductible part of income consistent with a minimum subsistence level.[1] Therefore the marginal peasant would escape the tax. Moreover, a distinction should be made, at all levels, between the availability of a volume of investible funds and pattern of investment. Private investment during 1950-1956 was mainly chanelled into construction despite the high capital-output ratio. Actually, total private investment in agriculture constituted only 20% of aggregate private investment compared to 42% for construction. We do not intend at this point to analyze the difference

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[1] We have no illusions about the conceptual difficulties in defining agricultural income and a subsistence level that is consistent with the aims of soceity. Nor are we oblivious of the administrative problems involved in collection.

that could exist between private and social marginal products. Suffice it to say, that a good portion of private investment was of small direct benefit to the Syrian development efforts.

2. Actual government expenditures in agriculture rose from 5.8 (mill. L.S.) in 1948 to 66 (mill.L.S.) during 1960-61 (See Table 53). This reflects the highly justifiable stress of the Five Year Syrian Plan of 1960/61-1964/65, on agricultural development; 50.8% of total planned expenditure have been allocated to agriculture (See Table 54).

c. Foreign Exchange Proceeds.

1. In spite of the growth in oil royalties during the last decade, the ratio of merchandise exports to exports of goods and services remains high. On the average, during 1952-62, 70% of total exports of goods were agricultural products. This means that proceeds of exports of goods are directly dependent on fluctuations in agricultural domestic production levels and any possible significant change in international prices.

2. There is no reason to expect in the immediate future a major worsening or improvement in terms of trade of agricultural products. International cooperation is increasing to stabilize, if possible, or at least mitigate the fluctuations in prices of primary goods. As such, Syria cannot depend on an external stimulus, like the 1949-1954 appreciable increase in prices of cotton and to a lesser extent cereals, to revitalize the energies of private sector.

3. The main future problem is to stabilize and diversify agricultural exports. Barring a major discovery of new oil reserves or

other natural resources, agricultural exports remain the main determinant of Syria's capacity to import necessary capital goods and services.

The agricultural sector has been the prime mover of Syria's rapid development. Development started in the agricultural sector and spilled over the rest of the economy. "If it were possible to abstract from institutional factors, both political and social, the problem of economic development could then be defined as essentially that of how to achieve in real terms an optimal rate and pattern of capital formation."[1] The effect of the performance of the agricultural sector on capital formation has been significant. In this respect two periods can be distinguished.

First, during 1948-1957, agriculture provided the outlets to the investments of the private sector. Second, through the ability to provide necessary food supplies, the economy was able to achieve a high rate of growth without running into the whirl of inflation or balance of payments difficulties. Third, agriculture's exports made possible imports of capital goods without burdening the balance of payments.

During the drought years of 1958-61, the failure of harvests affected the whole economy. Consumption levels declined, balance of payments difficulties were encountered which necessitated exchange restrictions, high tariff walls on luxuries and semi-luxuries and devaluation of

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1 [illegible]/Asfour, op.cit., p.66.

the Syrian pound. To aggravate the situation, the timing of land reform and other institutional reforms was inappropriate and more important the government did not possess a well trained administrative staff, on all levels, to fill the vacuum created by the withdrawal of landlords and businessmen. Expectations in the future and confidence in government intentions were greatly questioned by the private entrepreneurs. The already slowing rate of private investment reached a near standstill. Moreover, sizeable capital fled abroad thus creating serious pressure in the balance of payments position.

The success of future Syrian development efforts greatly depends on the following:

1. The ability and willingness of different political groups to evolve a social organization in the country that would endure and be conducive to economic growth in light of Syria's capacities and aims.

2. The immediate start on the construction of Euphrates dam. For the longer Syria waits, the greater would be the dangers of inflationary pressures and balance of payment difficulties.

3. Revitalization and assistance of private entrepreneurs. One of the main aims of development is the creation of an entrepreneurial class that would conceive, finance and manage a broad base of projects.

Much of Syria's development can be traced to the presence of such a pool of human talent. We should not forget that the human agent is the factor that determines how and when other factors of production should be combined. The first step in the creation of an atmosphere of expectations conducive to private initiative should be undertaken by the government. This entails a drawing of a clear line of demarcation between the future public and private fields.

APPENDIX A

EXPLANATORY NOTE

I. Estimate of Value of Domestic Food Products.

A. Cereals - Values derived during 1950-62 inclusive, by multiplying quantities times Damascus wholesale prices. In the absence of wholesale prices of millet, 1952-1955 inclusive, 90% of the export price was used.

B. Dry Legume -

1. Potatoes - For 1951-1955, 80% of export price was used. For 1950, 1956-62 inclusive the Damascus wholesale prices are given for first grade potatoes. To take account of quality differentiation, 90% of the wholesale prices were multiplied by the respective quantities.

2. Garlic - For 1951-55 inclusive, 80% of export price was used. The price of 1951 was used to derive value of 1950. For 1956-62 inclusive, quantities were multiplied by the respective Damascus wholesale prices.

3. Tomatoes - Quantities were multiplied by 80% of the export price, 1951-62 inclusive. The price of 1951 was used to derive value of 1950.

4. Onions - Values derived by multiplying quantities times respective Damascus wholesale prices.

C. Fruits -

1. In the absence of wholesale and retail price data, 80% of the export price fo quince, almonds, figs, peaches, plums, apples, grapes and appricots were multiplied by the respective quantities to derive value during the period of

1951-62 inclusive. The 1951 prices were used to derive values of 1950. In the case of almonds, the 80% of export price of 1960 was used to derive values of this item during 1961 and 1962.

2. Olives - 60% of Damascus retail price of dan olives was used to derive values for 1950-62 inclusive.

3. Nuts - Quantities were multiplied by Damascus wholesale price to derive values during 1950-62 inclusive.

D. Milk and Milk Products -

1. Cheese and butter - 70% of Damascus retail prices were used to derive values - 1950-62 inclusive.

2. Ghee - Damascus wholesale prices were multiplied by the respective quantities to derive values - 1950-62 inclusive.

3. Milk - It is estimated that 50%, 20% and 5% of total milk production are transformed into Ghee, cheese and butter respectively. Therefore only 25% of total annual milk production was multiplied by 70% of Damascus retail prices to derive values during 1950-62 inclusive. (See, U.A.R., Syria, Estimate of the National Income of Syria - Agricultural Sector 1952-57, Damascus, 1958, p. 34.)

E. Meat - To estimate the value of apparent meat consumption during 1950-62 inclusive the following method was used:

1. The number of slaughtered sheep, lambs, goats, kids, cows, and camels in the slaughter houses in all Syria are reported in the Statistical Abstracts - 1950-62 inclusive.

2. Conversion factors given in, F.A.O., Food Composition Tables, Washington, 1949, pp. 15-16, were used to convert the number of slaughtered head each year into tons of meat (carcasses).

3. Damascus wholesale prices for meat with bones are available for 1956-62 inclusive. The respective quantities were multiplied by the prices to derive values during 1956-62 inclusive.

4. The number of goats and kids after conversion into tons of meat were aggregated annually and the price of goats was utilized to derive the values of the group. Moreover, in the absence of wholesale prices of goats for 1961 and 1962, the wholesale price of 1960 was used to derive values during these two years.

5. In the absence of both wholesale and retail prices for 1950-55 inclusive, except for sheep, the simple average of the wholesale prices of 1956-62 of each group, was used to derive values during 1950-1955 inclusive.

6. In case of sheep, 70% of retail price of meat with bones was used to derive values of this group during 1950-55 inclusive.

7. A 10% of the annual value of total meat consumption was taken to represent the value of slaughtered but uninspected animals. (See U.A.R., Syria, Estimate of National Income of Syria, Agricultural Sector 1952-57, Damascus, 1958, p. 31.)

F. Others -

1. Eggs - The annual production of eggs is reported in thousands in the Syrian Statistical Abstracts while the wholesale prices are given per case (1440 eggs). The number of cases was found and multiplied by the respective Damascus wholesale prices to derive values - 1950-62 inclusive.

2. Five million eggs are utilized annually for hatching purposes. Their values were deducted from the annual value of eggs production during 1950-62. (See, U.A.R., Syria, Estimate of Syrian Nation Income, Agricultural Sector 1952-57, Ibid., p. 35.)

5. Honey - 80% of export prices of natural honey was used to derive values - 1951-62 inclusive.

Sources:

I. Production and Wholesale Prices Data.

A. Syria, Statistical Abstracts, Issues 1950-1957 inclusive and 1962.

B. U.A.R., Syria, Statistical Abstracts, Issues 1958-60.

II. Export Prices.

A. Syria, Direction Generale des Douanes, Statistiques du Commerce Exterieur, Damascus: Jamhurya Press, Issues 1952, 1954, 1956 and 1962.

B. Republique Arabe Unie, Region Syrienne, Statistique du Commerce Exterieur, Damascus: Jamhurya Press, Issues 1958 and 1960.

III. Meat Conversion Factors.

A. F.A.O., Food Composition Tables for International Use, Washington, 1949.

IV. Milk Transformation Ratios.

A. U.A.R., Syrian Region, Estimate of Syrian National Income - Agricultural Sector 1952-57, Damascus: Government Press, No. 1, 1958.

II. Estimate of Value of Seeds -

The following steps were utilized to estimate value of seeds of wheat, maize, rice, millet, chick-peas, lentils, and haricot beans.

1. The planted area of each group during 1950-62 inclusive were taken from the Syrian Statistical Abstracts.

2. Ratios of seeds/hectar were based on Adel Al-Akel, National Income Accounts of Syria, 1955 and 1956, Ph.D. dissertation (unpublished), Columbia University Press, 1958. Originally the figures of Mr. Akel were based on (1) Albert Badre, National Income of Lebanon, (2) Sami Wafa Dajani, National Income of Syria, 1952.

3. The seeds per hector were multiplied by planted hectores of each group to derive tons of seeds consumed - 1950-62 inclusive.

4. Quantities thus derived were multiplied by Damascus wholesale prices to derive values - 1950-62 inclusive. Only, in case of millet, 90% of export prices, during 1952-55 inclusive, were used to derive values.

Sources:

A. Cultivated Area and Damascus Wholesale Prices.

1. Syria, Statistical Abstracts, Issues 1950-57 and 1962.

2. U.A.R., Syrian Region, Statistical Abstracts, Issues 1958-60.

B. Seed Ratios.

1. Adel al-Akel, National Accounts of Syria, 1955 and 1956, Ph.D. Dissertation (Unpublished), Columbia University, 1958.

C. Export Prices of Millet.

1. Syria, Direction Generale des Douanes, Statistiques du Commerce Exterieur, Damascus: Jamhurya Press, Issues 1952-1955.

III. Estimate of Value of Food Exports.

A. Food items were classified under seven groups, namely: Cereals, Dry legume, Vegetables, Fruits, Oils, Milk products and eggs, others.

B. The value of items under each group are given in F.O.B. foreign trade statistics. Each item with a value less than half a million L.S. was neglected. However, when the sum total of neglected items, under each group, added up to more than half a million L.S. they were reported.

IV. Estimate of the Value of Food Imports.

A. Food items were classified under nine groups, namely: Cereals, Dry legume, Vegetables, Fruits, Coffee, Tea & Spices, Fats, Milk and milk products, Sugar and sugar products, Fish and preserved meat.

B. The values of imports for 1951-58 inclusive are given at the official rate of exchange while for 1957-62 inclusive, at free market rate.

C. The same procedure followed in deriving value of exports was applied in case of imports.

Sources:

1. Syria, Direction General des Douanes, Statistique du Commerce Exterieur, Jamhurya Press, Damascus, Issues 1952, 54, 56, and 62.

2. Republique Arabe Unie, Region Syrienne, Statistique du Commerce Exterieur, Jamhurya Press, Damascus, Issues 1958 and 1960.

V. Estimate of Value of Apparent and Per Capita Food Consumption.

A. Value of Apparent food consumption for 1951-62 inclusive equals to: D - S + M - X; where D = Value of domestic food production (Table 45); S = Value of seed consumption (Tables 44 and 45); M = Value of imports of food (Table 46); X = Value of exports of food (Table 47).

B. Per capita value of apparent food consumption =

$$\frac{\text{Value of Apparent food consumption}}{\text{Number of population}}.$$

C. Per capita value of net domestic food production = $\frac{D - S}{P}$, where D = Value of domestic food production; S = Value of seeds consumption; P = Number of population.

TABLE 43

ESTIMATE OF THE VALUE OF DOMESTIC FOOD PRODUCTION AT CURRENT PRICES - 1950-1962
(MILLION L.S.)

	1950			1951			1952			1953			1954			1955			1956			1957			1958			1959			1960			1961			19
	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T
			202.4			183.6			355			281.5			248.1			150.8			322.4			326.6			135.4			198.9			176			238.3		
	830	210	174.3	509.6	330	168.3	900	340	306	870	270	235	965	230	222	438	280	122.6	1052	280	294.6	1354	230	311	562	220	123.6	632	290	183.3	555	300	166.5	757	300	227	1374	260
	75.7	180	13.7	24	320	7.7	106	331	35.1	124	194	24	114	175	19.9	71	261	16.5	75	270	20	52	210	11	50	180	9	42	260	10.9	29	230	6.7	38	210	8	56.5	190
	35.6	180	6.5	21.8	310	6.8	23	320	7.4	22	240	5.3	24	190	4.6	18	260	4.7	15	270	4	15	240	3.6	10	240	2.4	12	310	3.7	9	280	2.5	10	290	2.9	7	270
	18	440	7.9	.9	720	.8	5.8	1080	6.5	16.2	1060	17	19	850	16	10.5	500	5	6	630	3.8	2	540	1	.7	620	.4	2	590	1	.4	670	.3	.5	730	.4	1	800
ume			18.2			25.9			37.8			31.2			26.5			15.2			27.5			31.9			22.8			24.8			10.6			26.5		
ans	1	350	.4	1	350	.4	1	740	.7	1	920	.9	1	650	.6	.8	460	.4	1	630	.6	.8	730	.6	1	720	.7	.1	960	.9	.9	860	.8	.1	750	.7	2	770
as	15.7	250	3.9	8.6	360	3.0	24	390	9.3	10.6	390	4.1	22.6	310	7	13.6	330	4.5	14	400	5.6	12	370	4.4	7	430	3	5.9	550	3.2	3.5	560	2	14	530	7.4	24	560
e	26.6	290	7.7	30	470	14.1	50.6	470	23.8	62.8	370	23.2	58	280	16.2	35.7	220	8	75	260	19.5	77	310	23.8	35.8	480	17.2	31.6	580	18.3	10	610	6.1	34	470	16	69.5	310
as	19	330	6.2	25.5	330	8.4	12	330	4	11	280	3	11.7	230	2.7	8.8	260	2.3	6.6	280	1.8	10	310	3.1	6.7	280	1.9	7.5	330	2.4	5	350	1.7	8	300	2.4	12	280
es			23.5			25.0			23.1			18.9			12.5			10.3			19.5			30.3			27.8			26.0			24.3			27.9		
es	34	190	6.4	36.6	152	5.5	38	216	8.2	37.7	160	6.0	27	98	2.6	23.7	112	2.6	25	261	6.5	32	171	5.5	21	261	5.5	14	243	3.4	27.9	207	5.8	30	243	7.3	34	279
	4	182	.3	4.6	82	.4	4	128	.5	4	149	.6	4	134	.5	3.6	139	.5	3.8	300	1.1	3.7	840	3.1	3	310	2.1	3	410	1.2	2	380	.7	3	540	1.6	14	900
es	50.9	240	12.2	67	240	16		66.7 128	8.5	70	87	6.0	69	78	5.4	64	79	5	81	80	6.4	95.5	171	16.3	71	217	15.4	98	188	18.4	74.6	141	10.5	93	124	11.5	116	165
	42	110	4.6	39.7	80	3.1	33	180	5.9	36.8	90	3.3	36.7	110	4	25	90	2.2	30.8	180	5.5	33.6	160	5.4	32	150	4.8	28	110	3	31.9	230	7.3	37.5	200	7.5	38.9	160
			86.4			79.9			78.1			79.0			71.3			72.4			110			115.3			136.4			94.1			123.9			134.8		
	1	456	.5	1.7	456	.8	1	216	.2	1	132	.1	1	200	.2	1	160	.2	1	320	.3	.9	324	.3	.8	184	.1	.7	740	.5	.8			.6	500	.3	1.6	399
	4	400	1.6	2	400	.8	2	1032	2.1	2.7	744	2.0	2.5	632	1.5	2	819	1.6	1.9	1648	3.1	2.5	774	1.9	1.6	2964	4.7	2.0	1534	3.1	1.7	2852	4.8	2.0	2852	5.7	2	285
	42	117	4.9	34	117	4.0	48	117	5.6	53	189	10	56	152	8.5	50	220	11	48	208	10	51	556	28	49	318	15.6	40	282	11.3	30	280	8.4	28	280	7.8	55	682
	3.7	2430	9	5	2210	11	3.6	3090	11.1	6	2760	16.5	6	3300	19.8	5.6	3790	21.2	4	1590	6.3	4.5	970	4.3	3	1220	3.7	13.7	1300	4.8	2.5	2050	5	8	1570	12.6	9	122
	1	275	.3	1.5	275	.4	1.5	283	.3	1	257	.3	1.6	192	.3	1	256	.3	1	275	.3	1	930	.9	1	323	.3	1.6	466	.7	1	662	.7	2	434	.9	7	39
	2	150	.3	2	150	.3	2	426	.8	2	186	.4	2.8	83	.2	2	160	.3	26	189	.5	3	374	1.1	2.8	314	.9	3	780	2.3	2	337	.7	2	255	3.5	3.5	22
	5	232	1.2	7	232	1.6	6	224	1.3	7.6	160	1.2	10	187	1.9	8	240	1.9	9.9	437	4.3	10.7	552	5.9	8	466	3.7	7.5	365	2.7	8.6	490	4.2	10	208	2	2.3	33
	245	220	53.9	185	182	33.7	169	200	33.4	244	88	21.5	257	96	24.7	206	97	20	194	136	26.4	241	157	37.8	200	243	48.6	216	154	33.6	198	156	30.9	243	134	326	255	14
	19	588	11.2	40	588	23.5	33	606	20.0	49	474	23.2	36	444	16	39	444	12.9	78	708	55.2	38	720	27.4	65	744	48.4	28	792	22.2	53	128	59.8	83	738	61.2	87	76
ts	21	165	3.5	23	165	3.8	15	221	3.3	23	166	3.8	25	103	2.6	12	250	3	10	360	3.6	24	320	7.7	29	360	10.4	26	496	12.9	18	520	9.4	18	624	11.2	43	46
ilk Pro.			58.1			70.0			84.8			105.4			102.8			93.6			127.3			123.3			79.7			57.0			39.8			49.2		
	Tons																																					
	638	3395	2.2	626	4095	2.6	832	3899	3.2	1668	3700	6.2	1647	3450	5.7	1945	3500	6.8	1897	4200	8	856	4137	3.5	558	3808	21	420	4501	.9	419	3381	1.4	496	2695	1.3	438	280
	6048	1512	9.1	12985	1575	20.4	12745	1736	22.1	18253	1386	25.3	13189	1372	18	11211	1253	14	11741	1512	17.7	14867	1771	26.3	11058	1806	20	7365	2016	14.8	4201	1967	8.3	4962	1925	9.5	12766	147
	5456	4660	25.4	5576	5170	28.3	6029	6070	36.6	10727	4670	51	11790	4450	52.2	15574	4920	47.1	11515	5230	60.2	8716	6080	58	5749	6280	36.1	3185	8090	25.8	2072	8130	16.8	2542	7390	18.7	5766	587
	87250	245	21.4	68500	273	18.7	74250	308	22.9	81750	280	22.9	81750	280	22.9	81500	294	26.9	85250	301	25.7	125750	329	41.4	125750	322	40.5	64000	336	21.5	39750	399	13.3	40250	490	19.7	66250	39
			32.1			38.2			35.5			35.4			37.0			47.5			45.6			56.2			59.7			81.8			82.1			78.5		
	6567	2240	14.7	7542	2240	16.8	7098	2450	17.4	6674	2275	15.2	7802	2247	17.5	8505	2261	19.2	8211	2570	21.1	9432	2840	26.8	11983	2550	30.5	15574	3050	47.5	17756	2870	52.3	14531	3260	47.4	1131	309
	1657	3010	5.0	2756	3010	8.3	3630	3010	4.9	2421	3010	7.3	1998	3010	6.0	3322	3010	10.0	3372	2700	9.1	3094	3020	9.3	4067	2570	10.5	3308	2810	9.3	2155	3390	7.3	3302	3230	10.7	4415	317
lds	1372	2520	3.4	1328	2520	3.3	1552	2520	3.9	1619	2520	4.1	1790	2520	4.5	3497	2520	8.8	2288	2340	5.3	2437	2790	6.8	2136	2420	5.2	2538	2450	6.2	1495	2600	3.9	1136	2600	2.9	1003	260
	901	2231	2	1341	2231	3.0	1213	2231	2.7	1071	2231	2.4	1202	2231	3.7	1317	2231	2.9	1668	1950	3.2	1974	2220	4.4	1670	2040	3.4	2248	2070	4.6	1578	2230	3.5	1623	2660	4.8	2215	346
	2029	2024	4.1	1680	2024	3.4	1664	2024	3.4	1609	2024	3.2	1376	2024	2.8	1151	2024	2.3	1401	2030	2.8	1999	1850	3.7	2621	1810	4.7	3767	1810	6.8	4241	1820	7.7	2631	2434	6.4	2167	423
			5.8			11.5			2.0			18.3			15.9			14.0			16.6			15.0			14.8			11.3			14.4			17.7		
)	a0853	90	5.4	143650	115	11.1	217385	133	19.5	216687	121	17.8	172856	130	15.3	150725	128	13.5	155495	156	16.3	146340	148	14.5	137685	161	14.8	104655	156	10.9	146754	144	14.2	167880	154	17.4	22565	151
	ons)	235	1849	.4	242	1840	.4	256	1920	.5	246	1896	.5	207	456	.1	278	1784	.8	195	1688	.3	211	2451	.5	150	415	1	182	2706	.5	74	2954	.2	104	3234	.3	117	370
			426.5			434.1			634.3			556.5			514.1			403.8			668.9			690.6			473.6			493.9			471.1			572.9		

TABLE 43

ESTIMATE OF THE VALUE OF DOMESTIC FOOD PRODUCTION AT CURRENT PRICES - 1950-1962
(MILLION L.S.)

	1953			1954			1955			1956			1957			1958			1959			1960			1961			1962		
	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill	Q 000 Tons	P/T	V Mill
5			281.5			248.1			150.8			322.4			326.6			135.4			198.9			176			238.3			370.4
6	870	270	235	965	230	222	438	280	122.6	1052	280	294.6	1354	230	311	562	220	123.6	632	290	183.3	555	300	166.5	757	300	227	1374	260	357
.1	124	194	24	114	175	19.9	71	261	18.5	75	270	20	52	210	11	50	180	9	42	260	10.9	29	230	6.7	38	210	8	56.5	190	10.7
.4	22	240	5.3	24	190	4.6	18	260	4.7	15	270	4	15	240	3.6	10	240	2.4	12	310	3.7	9	280	2.5	10	290	2.9	7	270	1.9
.5	16.2	1060	17	19	850	16	10.5	500	5	6	630	3.8	2	540	1	.7	620	.4	2	590	1	.4	670	.3	.5	730	.4	1	800	.8
.8			31.2			26.5			15.2			27.5			31.9			22.8			24.8			10.6			26.5			39.7
.7	1	920	.9	1	650	.6	.8	460	.4	1	630	.6	.8	730	.6	1	720	.7	.1	960	.9	.9	860	.8	.1	750	.7	2	770	1.5
.3	10.6	390	4.1	22.6	310	7	13.6	330	4.5	14	400	5.6	12	370	4.4	7	430	3	5.9	550	3.2	3.5	560	2	14	530	7.4	24	560	13.4
.8	62.8	370	23.2	58	280	16.2	35.7	220	8	75	260	19.5	77	310	23.8	35.8	480	17.2	31.6	580	18.3	10	610	6.1	34	470	16	69.5	310	21.5
	11	280	3	11.7	230	2.7	8.8	260	2.3	6.6	280	1.8	10	310	3.1	6.7	280	1.9	7.5	330	2.4	5	350	1.7	8	300	2.4	12	280	3.3
.1			18.9			12.5			10.3			19.5			30.3			27.8			26.0			24.3			27.9			47.4
.2	37.7	160	6.0	27	98	2.6	23.7	112	2.6	25	261	6.5	32	171	5.5	21	261	5.5	14	243	3.4	27.9	207	5.8	30	243	7.3	34	279	9.5
.5	4	149	.6	4	134	.5	3.6	139	.5	3.8	300	1.1	3.7	840	3.1	13	310	2.1	3	410	1.2	2	380	.7	3	540	1.6	14	900	12.6
.5	70	87	6.0	69	78	5.4	64	79	5	81	80	6.4	95.5	171	16.3	71	217	15.4	98	188	18.4	74.6	141	10.5	93	124	11.5	116	165	19.1
.9	36.8	90	3.3	36.7	110	4	25	90	2.2	30.8	180	5.5	33.6	160	5.4	32	150	4.8	28	110	3	31.9	230	7.3	37.5	200	7.5	38.9	160	6.2
.1			79.0			71.3			72.4			110			115.3			136.4			94.1			123.9			134.8			189.8
			.1	1	200	.2	1	160	.2	1	320	.3	.9	324	.3	.8	184	.1	.7	740	.5	.8			.6	500	.3	1.6	399	.6
.2	1	132	2.0	2.5	632	1.5	2	819	1.6	1.9	1648	3.1	2.5	774	1.9	1.6	2964	4.7	2.0	1534	3.1	1.7	2852	4.8	2.0	2852	5.7	2	2852	5.7
.1	2.7	744	10	56	152	8.5	50	220	11	48	208	10	51	556	28	49	318	15.6	40	282	11.3	30	280	6.4	28	280	7.8	55	682	37.5
.6	53	189	16.5	6	3300	19.8	5.6	3790	21.2	4	1590	6.3	4.5	970	4.3	3	1220	3.7	13.7	1300	4.8	2.5	2050	5	8	1570	12.6	9	1220	11
.1	6	2760	.3	1.6	192	.3	1	256	.3	1	275	.3	1	930	.9	1	323	.3	1.6	466	.7	1	662	.7	2	434	.9	7	394	2.7
.3	1	257	.4	2.8	83	.2	2	160	.3	26	189	.5	3	374	1.1	2.8	314	.9	3	780	2.3	2	337	.7	2	255	3.5	3.5	222	.8
.8	2	186	1.2	10	187	1.9	1	240	1.9	9.9	437	4.3	10.7	552	5.9	8	466	3.7	7.5	365	2.7	8.6	490	4.2	10	208	2	2.3	338	7.8
.3	7.6	160	21.5	257	96	24.7	106	97	20	194	136	26.4	241	157	37.8	200	243	48.6	218	154	33.6	198	156	30.9	243	134	326	255	147	37.5
.4	244	88	23.2	36	444	16	9	444	12.9	78	708	55.2	38	720	27.4	65	744	48.4	28	792	22.2	53	128	59.8	83	738	61.2	87	762	66.3
.0	49	474	23.2	36	444	16	9	444	12.9	78	708	55.2	38	720	27.4	65	744	48.4	28	792	22.2	53	128	59.8	83	738	61.2	87	762	66.3
.3	23	166	3.8	25	103	2.6	2	250	3	10	360	3.6	24	320	7.7	29	360	10.4	26	496	12.9	18	520	9.4	18	624	11.2	43	462	19.9
.8			105.4			102.8			93.6			127.3			123.3			79.7			57.0			39.8			49.2			80.2
.2	1668	3700	6.2	1647	3450	5.7	945	3500	6.8	1897	4200	8	856	4137	3.5	558	3808	21	420	4501	.9	419	3381	1.4	496	2695	1.3	438	2800	1.2
.1	18253	1386	25.3	13109	1372	18	1211	1253	14	11741	1512	17.7	14867	1771	26.3	11058	1806	20	7365	2016	14.8	4201	1967	8.3	4962	1925	9.5	12766	1470	18.8
.6	10727	4670	51	11790	4450	52.2	574	4920	47.1	11515	5230	60.2	8716	6080	53	5749	6280	36.1	3185	8090	25.8	2072	8130	16.8	2542	7390	18.7	5766	5870	33.8
.9	81750	280	22.9	81750	280	22.9	1500	294	26.9	85250	301	25.7	125750	339	41.4	125750	322	40.5	64000	336	21.5	39750	399	13.3	40250	490	19.7	66250	399	26.4
.5			35.4			37.0			47.5			45.6			56.2			59.7			81.8			82.1			78.5			66.1
.4	6674	2275	15.2	780	2247	17.5	1505	2261	19.2	8211	2570	21.1	9432	2840	26.8	11983	2550	30.5	15574	3050	47.5	17756	2870	52.3	14531	3260	47.4	11318	3090	35.0
.9	2421	3010	7.3	1990	3010	6.0	1322	3010	10.0	3372	2700	9.1	3094	3020	9.3	4087	2570	10.5	3308	2810	9.3	2155	3390	7.3	3302	3230	10.7	4415	3170	14.0
.9	1619	2520	4.1	1790	2520	4.5	1497	2520	8.8	2280	2340	5.3	2437	2790	6.8	2136	2420	5.2	2538	2450	6.2	1495	2600	3.9	1136	2600	2.9	1003	2600	2.6
.7	1071	2231	2.4	1202	2231	2.7	1317	2231	2.9	1666	1950	3.2	1974	2220	4.4	1670	2040	3.4	2240	2070	4.6	1570	2230	3.5	1623	2660	4.3	1215	2460	5.4
.4	1609	2024	3.2	1378	2024	2.8	1151	2024	2.3	1401	2030	2.8	1999	1850	3.7	2621	1810	4.7	3767	1810	6.8	4241	1820	7.7	2631	2434	6.4	1167	2424	5.2
.0			18.3			15.9			14.0			16.6			15.0			14.8			11.3			14.4			17.7			24.2
.5	16687	121	17.6	17655	130	15.8	10755	128	13.5	155495	156	16.3	146348	148	14.5	137685	161	14.8	104655	156	10.8	146754	144	14.2	167880	154	17.4	25656	155	23.8
.5	246	1896	.5	207	456	.1	278	1784	.5	195	1688	.3	211	2451	.5	150	415	1	182	2706	.5	74	2954	.2	104	3234	.3	117	3707	.4
4.3			556.5			514.1			403.8			668.9			693.6			470.6			493.9			481.1			572.9			819.2

TABLE 44

ESTIMATE OF SEED CONSUMPTION - 1950-1962
(IN TONS)

Year	Wheat			Maize			Rice			Millet			Chick Peas			Lentils			Haricut Beans		
	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons	Seeds/ Hect. (Tons)	Area (000 Hect.)	Seeds Tons
1950	0.10	992	99200	0.075	24.8	1860	0.14	9.4	1316	.050	94	4700	0.075	33.1	2482	0.15	59.2	8880	0.06	1.8	108
1951	"	1073	107300	"	16	1200	"	.5	70	"	71.4	3570	"	27.4	2055	"	65.7	9855	"	1.5	90
1952	"	1167	116700	"	19.2	1440	"	2.8	392	"	114.9	5745	"	28.4	2130	"	66.2	9930	"	1.4	84
1953	"	1314	131400	"	18.1	1360	"	5.3	742	"	97.6	4880	"	22.5	1687	"	70.9	10635	"	1.6	96
1954	"	1347	134700	"	17.3	1300	"	6.0	840	"	102.4	5120	"	27.4	2055	"	76.4	11460	"	1.8	108
1955	"	1463	146300	"	13	975	"	4.0	560	"	69.9	3495	"	25.2	1890	"	77.5	11625	"	1.5	90
1956	"	1537	153700	"	10.1	758	"	2.4	336	"	86.7	4335	"	25.4	1905	"	85.1	12765	"	1.6	96
1957	"	1495	149500	"	9.7	728	"	1.0	140	"	70.3	3515	"	29.2	2190	"	93.1	13965	"	1.5	90
1958	"	1461	146100	"	8.5	638	"	.4	56	"	57.4	2870	"	35.5	2662	"	119.3	17895	"	1.5	90
1959	"	1422	142200	"	8.5	638	"	.8	112	"	57.7	2885	"	28.6	2145	"	83.6	12555	"	1.6	96
1960	"	1549	154900	"	6.8	510	"	.2	28	"	50.5	2575	"	11.7	877	"	55.8	8370	"	1.1	66
1961	"	1315	131500	"	9.7	728	"	.2	28	"	60.5	3025	"	25	1885	"	57.6	8670	"	1.6	96
1962	"	1417	141700	"	7.5	563	"	.4	56	"	68.7	3435	"	40.1	3007	"	81.2	12180	"	1.6	96

TABLE 45

ESTIMATE OF THE VALUE OF SEED CONSUMPTION - 1950-1962
(IN MILL.L.S.)

	Wheat			Maize			Rice			Millet			Chick Peas			Lentils			Haricot Beans		
Year	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)	Seeds (Tons)	P/T L.S.	Value (Mill. L.S.)
1950	99200	210	20.8	1860	180	.3	1316	440	.6	4700	180	.8	2482	250	.6	8880	290	2.6	108	350	.04
1951	107300	330	35.4	1200	310	.4	70	770	.05	3570	320	1.1	2055	360	.7	9855	470	4.6	90	350	.03
1952	116700	340	39.7	1440	320	.5	392	1080	.4	5745	331	1.9	2130	390	.8	9930	470	4.7	84	740	.06
1953	131400	270	35.5	1360	240	.3	742	1060	.8	4880	194	.9	1687	390	.4	10635	370	3.9	96	920	.09
1954	134700	230	31	1300	190	.2	840	850	.7	5120	175	.9	2055	310	.6	11460	280	3.2	108	650	.07
1955	146300	280	41	975	260	.3	560	500	.3	3495	261	.9	1890	330	.6	11625	220	2.6	90	460	.04
1956	153700	280	43	258	270	.2	336	630	.2	4335	270	1.2	1905	400	.8	12765	260	3.3	96	630	.06
1957	149500	230	34.8	728	240	.2	140	540	.7	3515	210	.7	2190	370	.8	13965	310	4.3	90	730	.06
1958	146100	220	32.1	638	240	.2	56	620	.03	2870	180	.5	2662	430	1.1	17895	480	8.6	90	720	.06
1959	142200	290	41.2	638	310	.2	112	590	.06	2885	260	.7	2145	550	1.2	12555	580	7.3	96	960	.09
1960	154900	300	46.5	510	280	.1	28	670	.02	2525	230	.6	877	560	.5	8370	610	5.1	66	860	.06
1961	131500	300	39.4	728	290	.2	28	730	.02	3025	210	.6	1875	530	1.0	8640	470	4.1	96	750	.07
1962	141700	260	36.8	563	270	.2	56	800	.04	3435	190	.6	3007	560	1.7	12180	310	3.8	96	770	.07

(IN MILL. L.S.)

Item	1951 Q (000 Tons)	1951 V (Mill. L.S.)	1952 Q (000 Tons)	1952 V (Mill. L.S.)	1953 Q (000 Tons)	1953 V (Mill. L.S.)	1954 Q (000 Tons)	1954 V (Mill. L.S.)	19[illegible] Q (000 Tons)	1956 Q (000 Tons)	1956 V (Mill. L.S.)	1957 Q (000 Tons)	1957 V (Mill. L.S.)	1958 Q (000 Tons)	1958 V (Mill. L.S.)	1959 Q (000 Tons)	1959 V (Mill. L.S.)	1960 Q (000 Tons)	1960 V (Mill. L.S.)	1961 Q (000 Tons)	1961 V (Mill. L.S.)	1962 Q (000 Tons)	1962 V (Mill. L.S.)
Cereals		11.4		16.1	3.2	3.2		4.9		[illegible]	9.7		11.9		10.1		28.3		80.9		51.1		59.9
Wheat	22	7.8	33.6	12	-	-	-	-	31	[illegible]	2.5	-	-	-	-	61.7	14.6	228	54.3	104	23.5	81	20.2
Rice	8	2.9	8	3.6	5.8	3.2	9.6	4.9	18	[illegible]	5.5	23	10.1	24	3.6	17	5	28	10.3	-	-	35	15.9
Flour	16	.7	1	.5	-	-	-	-	2	[illegible]	1.7	6	1.3	5.9	1.5	2	8.7	90	16.3	116	24.6	82	21.8
Maize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	3	7	2
Dry Legume																			.8				
Chick Peas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	.8	-	-	-	-
Vegetables		1.4		4.2		4.4		5.0		[illegible]	7.0		10.6		11.0		10.1		9.9		6.4		6.9
Tomatoes	5	.5	5	.7	6.5	1	5	1.2	8	[illegible]	1.7	10.5	2.6	10.8	2.8	8.9	2.6	12.5	2.4	11	2.4	11	2.2
Potatoes	-	-	10.5	1.6	8.5	1.4	11.5	1.5	5.8	[illegible]	1.9	19.8	3.5	18	3.5	19.7	3.8	27.5	4.7	[illegible]	1.6	8	1.7
Cucumber, Squash	-	-	-	-	1.7	.5	3	.6	2.9	[illegible]	.9	3	.9	5	1.3	-	-	-	-	-	-	-	-
Beans	-	-	-	-	-	-	-	-	-	[illegible]	.5	2.7	.7	2	.5	1.5	.5	1.7	.5	[illegible]	.5	3	.9
Onions	-	-	-	-	-	-	-	-	-	[illegible]	-	2	.5	-	-	4	.7	7.6	1	-	-	-	-
Cabbage & Cauliflr.	-	-	-	-	-	-	-	-	-	[illegible]	-	-	-	3	.6	3	.7	3.9	.5	-	-	-	-
Others	6.5	.9	9.7	1.9	8.5	1.5	9.7	1.7	12	[illegible]	2	10	2.4	3.8	2.3	5	1.8	5	1.7	10.5	1.9	11	2.1
Fruits		10.6	[illegible]	13.0	[illegible]	12.0	[illegible]	12.	16.0	[illegible]	16.9		22.3		27.4		27.3		27.4		24.0		30.6
Plums	-	-	-	-	-	-	-	-	-	[illegible]	-	-	-	-	-	2.6	.5	-	-	-	-	-	-
Almonds (Shelled	-	-	-	-	-	-	-	-	-	[illegible]	-	-	-	-	-	-	-	-	.5	-	.5	-	.5
Bananas "	3	.9	4	1.3	4	1.4	3.9	1.	8	[illegible]	2.6	6	2.6	9	3.8	7.6	2.7	8	2.9	7	2.8	8	3.3
Orange & Mandar.	24	3.0	26	4.1	19	3.6	24	4.	21.5	[illegible]	5	29.7	6.9	30	7.5	40.5	8.6	39.9	8.3	31	7.6	48	10.7
Lemon "	-	-	3	.6	2	.5	3	.	3	[illegible]	.7	2	.9	3	1.2	5	1.4	6	1.8	5	1.5	6	1.8
Watermelon	-	-	9	.9	11	1.3	14	1.	9.5	[illegible]	2	16	2.7	16.8	2.3	7	.9	5	.7	13	1.2	14	1.7
Dates	-	-	-	-	21.8	2.6	19.5	2.	36.9	[illegible]	3.2	23.6	3.3	45.8	6.3	29.7	4.4	30	4.6	25	4	26	3.9
Apples	-	-	-	-	2	.8	1.8	.	2	[illegible]	1.6	6	2.8	6.6	2.6	11.7	4.4	11.5	4.5	8	3.4	14	5.1
Pistachio(shelled)	-	-	-	-	-	-	-	-	-	-	-	-	-	N	.5	-	.6	-	.7	-	.6	-	.7
" (unshelled)	-	-	-	-	-	-	-	-	-	-	-	-	-	.3	.7	.2	.6	.2	.5	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	.5	-	-	-	-	1	.5
Others	51.5	6.7	41	6.1	7	1.8	6.5	1.	4.9	[illegible]	1.8	8.5	3.1	6.5	2.5	6	2.7	5.6	2.9	7	2.4	7	2.4
Coffee, Tea & Spices		3.9		4.1		4.6		5.		[illegible]	5.8		13.4	14.1	16.1	14.7	13.3		14.7		11.4		25.1
Unroasted Coffee	1	2.3	1	2.8	1	2.6	1	3.	1	[illegible]	2.8	1.5	5.5	1.7	5.8	1.9	5.2	1.8	4.7	2	4.2	4	8
Tea	.6	1.6	.6	1.3	.8	2.2	.9	2.	1	[illegible]	3	1.5	7.4	1.6	8.3	1.6	7.5	2	10	1	7.2	3.7	17.1
Spices	-	-	-	-	-	-	-	-	-	-	-	.1	.5	-	-	.3	.6	-	-	-	-	-	-
Fats		.9		2.7		2.0		1.		[illegible]	2.9		4		3.7		10.5		11.4		1.7		
Olive Oil (edible)	-	-	.8	1.2	1	2	1.5	1.	.8	[illegible]	1	.8	1.4	-	-	.3	.5	-	-	-	-	-	-
Coconut Oil	1	.9	2.5	1.5	-	-	-	-	2.7	[illegible]	1.9	2.5	2.1	3	2.5	4.5	3.7	4	3	-	-	-	-
Margerine	-	-	-	-	-	-	-	-	-	[illegible]	-	.4	.5	.8	1.2	4.6	5.7	6.7	7.7	1.5	1.7	-	-
Raw fats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.6	.6	.8	.7	-	-	-	-
Milk & Milk Products						0.8		0.9		[illegible]	1.8	1.6	1.6		1.5		3.2		11.2		5.8		6.9
Butter, Fresh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.2	.7	.5	1.3	.5	1.2
Ghee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.4	2.3	-	-	.5	.5
White Cheese	-	-	-	-	-	-	-	-	-	-	-	.2	.6	-	0	-	-	3.8	.8	-	-	-	-
Milk	-	-	-	-	.5	.8	.6	.9	.7	.9	.7	1.8	.4	1	1.6	1.5	1	1	.9	1	2.5	1.9	3.5
Other Cheese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	3.2	.9	2	.8	1.7
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2.2	2	3.2	-	-	-	-
Sugar & Products		2.9		5.0		4.9		6		[illegible]	10		19.8		18.1		18.2		17.5		19.9		18.2
Refined Sugar	7	2.9	12	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glucose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raw Sugar	-	-	-	-	23.8	4.9	28.7	6	41.7	8.8	19	49	19.8	53.9	18.1	58	17.6	58	16.3	75	19.2	73	17.6
Sugar Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.2	.7	-	-	-	-
Molasses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	.6	1.9	.5	2	.7	2	.6
Fish & Pres.Meat								.5			1.3		2.3		2.5		2.5		7.1		5.9		6.4
Fish Cooked or Pres.	-	-	-	-	-	-	.4	.5	-	-	.6	.9	1.6	.6	1	1	2	2	3.3	1	2.8	1	2.8
Preserved Meat	-	-	-	-	-	-	-	-	-	-	.5	.7	.6	1.2	.7	1.5	-	-	1	2.7	.8	1.8	1	2.3
Raw Fish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.8	.5	.9	1.1	2	1.3	1.8	1.3
		31.1		45.1		31.9		37.[illegible]		52.2	55.4		86.4		88.4		113.4		180.9		126.2		154.0

TABLE 47

ESTIMATE OF THE VALUE OF MAIN ITEMS OF FOOD EXPORTS - 1951-62
(IN MILL L.S.)

Items	1951		1952		1953		1954		1955		1956		1957		1958		1959		196		1961		1962	
	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	(Mi. L)	Q (000 Tons)	V (Mill. L.S.)	Q (000 Tons)	V (Mill. L.S.)
Cereals		5.6		36.3		62.7		83.6		15.4		62.3		91.3		48.3		1.6				0.6		76.4
Wheat	.3	.9	100	29.7	180.1	46	233	70	32.8	10.6	179	56.7	352.8	88.6	177.8	44.7	-	-	-		-	-	211	74.2
Maize	-	-	-	-	3.4	.8	3.2	.6	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Millet	9	2	14.5	3	44.7	9.6	22.7	4.4	11.8	3.5	15	3.8	13	2.7	20	3	5.6	1.6	2.7		3	.6	12	2.2
Flour	5.5	1.9	9	3.6	22.3	6.3	2.8	8.8	2	.6	3.7	1	-	-	2.5	.6	-	-	-		-	-	-	-
Rice	1	.8	-	-	-	-	-	-	2	.7	1.9	.8	-	-	-	-	-	-	-		-	-	-	-
Dry Legume		2.0		2.3		6.7		9.0		5.2		12.9		14.5		10.6		4.9				1.4		14.7
Lentils	4.9	2	5.4	2.3	18	6.7	34.6	9	17	4.6	44.5	12	38	12.6	18	8.7	7.5	4.9	-		3	1.4	35	12.3
Chick Peas	-	-	-	-	-	-	-	-	2	.6	2.5	.9	5.7	1.9	5	1.9	-	-	-		-	-	5.7	2.4
Vegetables		4.2		5.9		3.2		3.5		5.5		6.1		4.2		5.1		4.8				3.2		7.5
Beans	-	-	-	-	3	.9	6.5	1.6	5.5	1.4	9	2.6	3	.9	2	.6	2	.6	-		-	-	-	-
Onions	13.4	1.3	9.8	1.2	12.7	1.1	14.9	1	10	.6	6.5	.7	5	.7	9	1.3	7.7	1.1	1		7	.9	12	1
Potatoes	-	-	2.8	.8	-	-	-	-	-	-	-	-	-	-	3	.5	-	-	-		-	-	-	-
Peas	-	-	-	-	-	-	-	-	2	.6	1.9	.5	-	-	-	-	-	-	-		-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-	-	-	-	-	2	.5	3.5	.9	5	1.2	-		3	.5	6	1.3
Others	9.7	2.9	14	3.9	8.8	1.2	7.6	.9	16	2.9	15	2.3	11	2.1	9.8	1.8	9	1.9	20		9	1.8	16	5.2
Fruits		2.6		3.8		3.9		5.5		5.2		5.1		6.3		11.9		11.1		10		4.8		5.1
Grapes	-	-	2	.7	-	-	5	.6	4.9	.6	5.6	.9	5.9	1.2	1.8	.6	5.9	1	5		4	.6	4	.7
Nuts	.7	.5	.2	.5	.9	2.1	1	1.4	1.3	1.6	.2	.6	1	1.2	-	1.3	-	.8	-		-	-	-	.5
Pistachio (shelled)	-	-	-	-	-	-	.4	.9	.2	.5	.2	.5	-	-	-	-	-	-	-		-	.5	-	-
Chestnuts	-	-	.7	.6	-	-	-	-	-	-	6.0	.6	4	.5	4	.6	6	1.2	6	1	16	2	18	1.5
Watermelon	-	-	6.8	.5	-	-	-	-	-	-	.1	.5	1.1	.5	.1	.6	-	-	-	-	-	-	-	-
Orange & Mandarine	-	-	-	-	-	-	-	-	-	-	.8	.5	.7	.5	1.5	1.7	3.6	3.9	3	4	-	-	1	.7
Apples	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	5	-	-	-	-
Melons	-	-	-	-	-	-	-	-	9	2.5	6	1.5	7.5	2.4	4.1	7.7	5.5	4.2	3.3	3	7.2	1.7	7.9	1.7
Others	5.9	2.1	3.8	1.5	16.8	1.8	12.7	2.6																
Oils		2.2		1.3		4.6		11.7		5.9		1.3		1.9		3		3.8						5.6
Sesame Oil	-	-	-	-	-	-	-	-	-	-	-	-	.8	1.1	-	-	-	-	-		-	-	-	-
Cotton Oil	-	-	-	-	1	1.4	.7	.8	1.9	2	.8	.8	1.5	1.8	1	1.3	1.9	1.9	2.5	2	2	2.9	-	.5
Olive Oil	-	-	-	-	.4	.8	.3	.5	1	2.6	4	10.9	1	3	-	-	-	-	.3	5	-	.5	1	2
Milk Products & Eggs		7		5		9.8		8.8		9.7		11.2		14.3		11.2		4.7		7				3.1
Ghee	.8	3.7	.1	.7	1	5.3	1	4.1	1	6.2	1	5.9	1.5	7.6	.8	4.7	.2	1.6	-		-	-	.6	3.1
White Cheese	.7	1.3	.8	1.7	1	2	1	1.8	1	1.4	1.5	2.4	1.7	2.7	1	2.7	.4	.8	-		-	-	-	-
Eggs	1.5	2	1.6	2.6	1.7	2.5	2	2.9	1.6	2.1	1.8	2.9	2	4	2	3.8	1	2.3	.5	7	-	-	-	-
Others		2		2		1.7		2.6		3		2.8		2		2.1		1.7		13		1.5		3.1
Fish (Raw)	3	2	2	2	1	1.7	2.7	2.6	3	3	2	2.3	1.6	2	1.7	2.1	.7	.8	.5	7	.5	.8	1.7	2.4
Grand Total		23.4		55.3		90.2		114.5		48.6		112.1		138.5		89.4		30.7		210		14.9		115.5

TABLE 48

ESTIMATE OF THE VALUE OF MEAT CONSUMPTION - 1950-1962

	Sheep					Lambs					Goats & Kids					Cows					Camels				
Year	No. of Sheep	Conversion Factor (Kgs)	Appt. Consump. (Tons)	P/T	Value (Mill. L.S.)	No. of Lambs	Conversion Factor (Kgs)	Appt. Consump. (Tons)	P/T	Value (Mill. L.S.)	No. of Goats	No. of Kids	Conversion Factor (Kgs)	Appt. Consump. (Tons)	P/T	Value (Mill. L.S.)	No. of Cows	Conv. Factor (Kgs)	Appt. Cons. (Tons)	P/T	Value (Mill. L.S.	No. of Camels	Conv. Factor (Kgs)	Appt. Cons. (Tons)	P/T	Value (Mill. L.S.)
1950	291,885	22.5	6567	2240	14.7	184,143	9	1657	3010	5	77,487	32,035	1489	1372	2520	3.4	7,572	119	901	2231	2	9223	220	2029	2024	4.1
1951	335,212	"	7542	2240	16.8	306,227	"	2756	3010	8.3	78,184	25,933	"	1328	2520	3.3	11,269	"	1341	2231	3	7635	"	1680	2024	3.4
1952	315,471	"	7098	2450	17.4	181,171	"	1630	3010	4.9	91,557	29,972	"	1552	2520	3.9	10,195	"	1213	2231	2.7	7563	"	1654	2024	3.4
1953	296,640	"	6674	2275	15.2	269,062	"	2421	3010	7.3	76,566	60,761	"	1619	2520	4.1	9,002	"	1071	2231	2.4	7312	"	1609	2024	3.2
1954	346,751	"	7802	2247	17.5	221,997	"	1998	3010	6	99,535	44,157	"	1790	2520	4.5	10,099	"	1202	2231	2.7	6285	"	1376	2024	2.8
1955	377,987	"	8505	2261	19.2	369,168	"	3322	3010	10	86,671	54,950	"	3997	2520	8.8	11070	"	1317	2231	2.9	5234	"	1151	2024	2.3
1956	364,953	"	8211	2570	21.1	374,720	"	3372	2700	9.1	128,713	53,981	"	2286	2340	5.3	14,017	"	1668	1950	3.2	6367	"	1401	2030	2.8
1957	419,216	"	9432	2840	26.8	343,779	"	3094	3020	9.3	145,455	44,573	"	2437	2790	6.8	16,591	"	1974	2220	4.4	9087	"	1999	1850	3.7
1958	532,616	"	11983	2550	30.5	454,095	"	4087	2570	10.5	128760	36,986	"	2136	2420	5.2	14,032	"	1670	2040	3.4	11913	"	2621	1810	4.7
1959	692,178	"	15574	3050	47.5	367,518	"	3308	2810	9.3	160484	32,332	"	2538	2450	6.2	18,995	"	2249	2070	4.6	17121	"	3767	1810	6.8
1960	789,163	"	17,756	2970	52.3	239,504	"	2155	3390	7.3	82,326	38,014	"	1495	2660	3.9	13,262	"	1578	2230	3.5	19278	"	4241	1820	7.7
1961	645,850	"	14531	3260	47.4	366,901	"	3302	3230	10.7	60,650	32,028	"	1136	2600	2.9	13,639	"	1623	2660	4.3	11958	"	2631	2430	6.4
1962	503,038	"	11318	3090	35	490,627	"	4915	3170	14	38,410	51,652	"	1003	2600	2.6	10,611	"	2215	2460	5.4	9651	"	2167	2420	5.2

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