

Agricultural Development in the Libyan Arab Republic

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ABSTRACT

Agricultural development is a part of the general economic and social development whose goal is to raise the per capita income for rural population. Agriculture plays an important role in economic development since it must expand its products to meet the expanding demand for food; it is an important source of capital, whether this is foreign or domestic, needed for development; a source of labor force needed for expansion in other sectors; a source of raw materials, needed for some industries; and it is an important market for non-agricultural products.

The First of September Revolution is giving agriculture and its development special attention, since agriculture is the second major sector in the Libyan economy with respect to the contribution to national income, exports, and employment. The government allocated more than 440 million dinars for agricultural development during the three-year plan (1973–1975), which is about 15 times the expenditure on agriculture during the 5 years just prior to the Revolution.

The objectives of agricultural development and planning in the L.A.R. are: the use of all resources available for self-sufficiency of agricultural products; to enable the government to export agricultural products; to raise and stabilize farmers' income; to reduce the dependence on oil production as a major source for national income; and to establish a sound agriculture as a base for economic development.

INTRODUCTION

Agriculture is considered to be a major sector in the Libyan economy, second only to oil production. Its contribution to national income and employment is significant, and it contributes to self-sufficiency in terms of agricultural production. Furthermore, it plays a great role in social development and in raising the per capita income due to the existence of about five million hectares of arable land and the possibility of using modern techniques of agriculture on a large scale. This paper consists of three sections dealing with agricultural development; the role of agriculture in economic development; and the Libyan agricultural development, respectively.

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I. Agricultural development

Agricultural development is a part of general economic and social development. Its main objective is to raise the per capita income of the rural population through increasing the total agricultural production by mechanization and modern technology, as well as enhancing the contribution of the individual to the whole economic process in Libya. Consequently, the contribution of agriculture to the development of society will be greater.

In order for agricultural development plans to achieve their objectives, they ought to be analyzed from the stand point of:

1. The demand for agricultural products.
2. The supply of agricultural products, and the forces controlling them.

Economic development and the demand for agricultural products. For a given period of time, the change in total use of a product is highly correlated to the change in population and the change in per capita use. The change in per capita could be attributed to the per capita income and consequently, the income elasticity of demand.

Table 1 shows the differences between countries with low and those with high national income (1). Also included are differences between countries with low and high economic growth rate with respect to the rate of increase in population, per capita income, and the elasticity of demand.

Table 2, however, shows the expected rate of increase in demand in four selected areas in the world (1). This rate of increase is an accumulative one; for instance, in a 10-year period, the 2% and the 3.5% rate of increase per year leads to a 22% and 41% total increase respectively. Thus, there is a large and serious increase in demand for food, especially in the developing countries, as a result of internal economic expansion. This clarifies the need and the necessity for increasing agricultural production which might be absorbed by the sharp increase in the demand for food. Food production must be increased by the same rate as demand is increasing, otherwise, the rate of economic growth will slow down and this could lead to inflation.

Increasing the supply of agricultural production. Agricultural production may be increased by increasing the productivity of the agricultural sector; that is, by introducing modern technology, and increasing the expenditure of development plans on un-

Table 1 Relationship between national income, growth rate, population growth, per capita income growth, and demand elasticity (1)^a

Item	Population growth rate	Per capita income growth rate	Elasticity of demand
Countries with high national income	< 1-2%	< 2-3%	0.1-0.5%
Countries with low national income:			
a) Countries with low growth rate	> 2%	< 2-3%	0.5-0.9%
b) Countries with high growth rate	> 2%	> 3%	0.5-0.9%

^a Reference.

Table 2 Rate of increase in demand for food from 1957-1959 to 1969-1970, in some selected areas (1)^a

Item	Asia ^b	Latin America ^c	Europe	U.S.A. and Canada
Population	2.3	2.7	0.7	1.80
Per capita income	1.3	2.0	3.9	1.30
Elasticity of demand	0.9	0.6	0.5	0.16
Percentage of growth in:				
Total demand	3.4	3.7	2.1	1.9
Individual demand	1.0	1.0	1.4	0.16
GNP per capita 1959 ^d	165	491	1285	2190

^a Reference.^b Excluding China and Japan.^c Excluding Argentina, Uruguay, Mexico, and Central America.^d Converted into U.S. dollars 1955.

conventional resources such as new breeds, new varieties and indirect services such as agricultural research, agricultural education, and agricultural extension services and training.

Agricultural production may be increased by the re-distribution of factors of production in agriculture according to the optimum combinations and least-cost combination of these productive resources; the benefit from the complementary and supplementary relationships between these resources; the differentiation between the use of limited and relatively unlimited resources. In short, agricultural production can be physically increased by any or all of the following: Increasing the quantity of factors of production; improving the quality of factors of production; better knowledge of modern technology, land reclamation, land reform; irrigation; drainage; changes in attitudes, goals and objectives of farmers and their families.

Improved technology is important for increasing agricultural production, but the most significant factors are the indirect services which may be classified into four groups: scientific research for best probability of production techniques, for solving farm problems; agricultural education and agriculture extension programs; providing farmers with improved factors of production; and providing firms with political, economic and social laws and institutes that serve agricultural production, and governmental agencies for security in rural communities.

II. The role of agriculture in economic development

Agriculture plays an important role in economic development and contributes much to society's welfare as a whole by raising the standard of living. Agricultural contributions to economic development may be summarized as follow:

1. Economic development is characterized by a greater demand for agricultural products: the failure to satisfy this demand may hinder the economic growth rates, (and might cause a destruction effect on the standard of living through inflation). Thus, agricultural production should be increased to meet the increase in demand.
2. Expanding exports of agricultural products is considered one of the most important sources of income and hard currencies specially during the early stages of development.

3. Man-power force needed for expanding industry and other sectors comes basically from agriculture, since the largest sector in the population is agricultural, and population growth rates are higher in rural areas, in addition to the spread of disguised unemployment.
4. Agriculture also contributes much to necessary capital needed for economic development plans through savings, taxes paid by the agricultural sector, and in terms of hard currencies earned from exported agricultural products. These currencies could be directed towards the purchasing of machines and equipment needed not only by agriculture but by all sectors of the economy.
5. Raising the net monetary income of rural people that might lead to an increase in the rate of industrial expansion. The increase in farmer's net income may encourage them to buy other non-agricultural products, leading to an increase in demand for these products, which will raise the prices that will make these industries more profitable. This will result in expanding and improving the products of these industries. Thus, the final result is the prosperity of all, farmers and non-farmers alike.
6. Main source of raw materials needed for expanding important industries, such as food processing and textile industries.

III. Agricultural development in the Libyan Arab Republic

According to the economic and social development plans in the Libyan Arab Republic, the direct needs for human well-being such as food, clothing, housing, health, and education come in first place. The economic development plans for agriculture can match these needs through increasing agricultural production, raising labor productivity, and cultivating as many areas as possible of the possible arable land. For this, the First of September Revolution gave agricultural development special attention, and established the Agricultural Development Council to be in charge of all land reform programs in the L.A.R. The Revolutionary government decided that the only way for agricultural development is the green revolution, and it is not the responsibility of the farmers only but of the whole society.

In spite of the importance of the agricultural sector in the national economy, the situation of the Libyan agriculture requires fast and strong improvements since: the cultivated area and the productive land is a small part of the large area of arable land; the agricultural sector contributes only 2.8% of the Libyan national income, while 30% of the population depends on agriculture for their income and living; the L.A.R. still depends heavily on imports with respect to the agricultural products for consumption; the average personal income has increased between 1964 and 1972 by 101.7% and 210.5% for workers in agriculture and workers in other sectors respectively.

In order to understand the efforts made in agricultural development we have to compare the situation before and after the 1969 Revolution. This comparison may be clarified by looking at the expenditure of the five-year development plan (1963-1968) and the three-years development plan (1973-1975) shown in Tables 3 and 4 respectively (2,3) as a reflection of the attention given to agricultural development.

These figures show that the share of agriculture during the five-years 1963-1968 was 29.375 million dinars or 18% of the total expenditure; while its share during the three-years 1973-1975 is 441.285 million dinars or 20% of the total, but it is about 15 times its share during the five-years period up to the First of September revolution.

The objectives of the 1973–1975 agricultural development plan are; to reduce the dependence on imports through increasing agricultural products; raising farm income considerably to match the increase in non-farm income, and also stabilizing farm income; to begin the execution of agricultural development plans and conducting of necessary studies for it; and the final objective of agricultural planning is to reduce the role of oil in the national income, since it is confined to oil reserves, and this objective could be achieved by establishing a sound agricultural sector to play this role.

Table 3 Total expenditures of the five-years development plan 1963–1968, by sector (2)^a

Sector	Total expenditures Thousand L.D.
Agriculture	29,375
Industry	6,900
National economy	2,870
Communication	27,460
Public works	38,662
Education	22,365
Public health	12,500
Labor and social affairs	8,690
General administration	6,425
News and guidance	2,550
Planning and development	11,400
Total	169,097

^a Reference.

Table 4 Total expenditures allocated for three-year general plan for social and economic development 1973–1975, by sector (2, 3)^a

Sector	Total expenditures Thousand L.D.
Agriculture and agricultural reform	159,182
The complete agricultural development	282,103
Industry and mineral health	361,844
Oil	189,390
Electricity	220,000
Communication and transportation	199,003
Education	185,919
General health	69,793
Labor	32,496
Youth and social affairs	17,496
Housing and services	294,991
Economic and tourism	9,630
National administration	141,068
Planning	5,000
Administration development	2,515
Projects reserve	33,000
Total	2,203,430

^a References.

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التنمية الاقتصادية بالجمهورية العربية الليبية

اسماعيل فرح

المستخلص

لقد أولت ثورة الفاتح من سبتمبر أهمية خاصة لقطاع الزراعة باعتباره أكبر قطاعات الاقتصاد الوطنى من حيث المساهمة في الدخل القومى وفي الصادرات في العمالة .

ولقد بلغت جملة الاستثمارات المخصصة للتنمية الزراعية خلال الخطة الثلاثية للتنمية الاقتصادية والاجتماعية ٧٣ - ١٩٧٥م أكثر من ٤٤٠ مليون ديناراً ليبيا والتي تمثل حوالى ١٥ مرة قدر الاستثمارات التي وجهت لقطاع الزراعة خلال الخمس سنوات السابقة لقيام الثورة ٦٣ - ١٩٦٨م .

وتستهدف التنمية الزراعية في الجمهورية العربية الليبية إلى تحقيق الاكتفاء الذاتى من المنتجات الزراعية وذلك من خلال استخدام جميع الموارد الاقتصادية المتاحة والتوسع في تصدير بعض المنتجات الزراعية ورفع واستقرار دخل المزارعين وتقليل درجة اعتماد الدولة على البترول كمصدر رئيسى للدخل القومى وأخيراً انشاء زراعة حديثة قائمة على أحدث الأساليب والأسس العلمية العصرية حتى تكون قاعدة صلبة للتنمية الإقتصادية المستقبلية .