CHAPTER III

AGRICULTURAL STRUCTURE OF INDIA AND ARAB OIL EXPORTING COUNTRIES:
Comparison and analysis
In this chapter it is attempted to assess the agricultural structure of India and Arab Oil Exporting Countries. This will help us to get the proper perspective of the study. To find out the possibilities of economic co-operation between India and Arab Oil Exporting Countries we have to study the production of agricultural goods in these countries, as well as the importance of this sector in the economics of these countries. For this purpose we have to consider the similar or dissimilar production structure in agricultural sector of India and Arab Oil Exporting Countries. If the participating countries in economic co-operation produce some agricultural goods then their agricultural structures can be regarded as similar. It is regarded as dissimilar if the participating countries in economic co-operation produce agricultural goods needed by each other. In economic co-operation through various agreements needs to increase exchange of at least some of the agricultural goods between the participating countries. There is more possibility of economic co-operation between those participating countries which are producing agricultural goods needed by each other. Therefore, study aims to examine the agricultural structures of India and Arab Oil Exporting Countries.
1) Importance of agriculture in India and Arab Oil Exporting Countries.

The importance of agriculture in the economies of India and Arab Oil Exporting Countries can be seen by examining the following aspects:

a) Dependence of population of these countries on agriculture for their livelihood.

b) The contribution of agriculture to national income of these countries.

Considering the point that more than 63 per cent population of India depends on agriculture for its livelihood, it already implies that India is an agricultural country (See Table 3.1). On the contrary, among all the Arab Oil Exporting countries only Iraq, Saudi Arabia and Oman seem to be agricultural countries. The dependance of total population of these countries on agriculture varies between 40 per cent to 60 per cent. In rest of the Arab Oil Exporting countries agriculture is not supposed to be an important factor for their livelihood. In one of the Arab Oil Exporting Countries like Bahrain, about 1250 acres land area devoted to the cultivation of dates 750, acres are being cultivated for vegetables, about 1250 acres are under alfalfa for livestock, feed, and about 250 acres are used for the cultivation of citrus and other fruits. About 4,000 of the total working force

of 60,000 are engaged in agriculture and fisheries. The traditional occupations of Bahrain were agriculture, fishing (including pearling) and boat construction. All these suffered to a greater or lesser extent as the newly-created oil wealth drew people from the villages and into the towns and industry where more money was to be earned. The importance of agriculture in the economies like Kuwait is very negligible. Only 2 per cent of Kuwait's total population depends on agriculture for their livelihood (see Table 3.1). In Kuwait¹ owing to lack of water, agriculture is very restricted and virtually all food is imported. But there are signs that an increasing interest is being taken in agriculture. Dr. Fil explained that Kuwait and the United Arab Emirates have adequate quantities of underground water to be exploited for at least a century and cultivate different types of crops and fruits.


On the contrary, the contribution of agriculture and allied industries to gross domestic product of most of the Arab Oil Exporting Countries during 1971 to 1979 ranged between less than 1 per cent and little more than 16 per cent. Among these countries the contribution of agriculture and allied services to gross domestic product of Iraq from the year 1971 to 1979 was between 8.86 per cent and 16.30 per cent. This had increased from 15.96 per cent in 1971 to 16.30 per cent in 1972. In 1973 and 1974 it had declined to 11.58 per cent and 6.86 per cent respectively while in 1975, 1976, and 1978 it varied from 6 to 7 per cent.

The contribution of agriculture and allied services to gross domestic product of Kuwait during 1971-79 was less than 1 per cent. In case of Oman the contribution of agriculture and allied services to its gross domestic product was between 2 per cent and 13 per cent. This contribution had declined from 13.6 per cent in 1971 to 12.05 per cent in 1972 and again from 10 per cent in 1973 to 2.53 per cent in 1976. In 1977 and 1978 it had slightly increased to 2.72 per cent and 3.02 per cent respectively. But in 1979 it had again declined to 2.72 per cent.
The picture of relative importance of various economic activities in India and Arab Oil Exporting countries is more clear from the classification of national income by sources of individual origin of these countries. Table 3.2 shows that the gross domestic product (GDP) of India originates more from agriculture and allied services such as forestry, hunting and fishing in percentage terms than from other sections. While in case of all the Arab Oil Exporting Countries mining is the only section which contributes more to their gross domestic product (GDP) than other sections. The contribution of agriculture and allied services to the gross domestic product of India from 1971 to 1979 ranges from 31.39 percent to 45.44 percent. The contribution of agriculture and allied services to GDP of India had declined from 41.70 percent in 1971 to 41.54 percent in 1972. This had increased to 45.44 percent in 1973 and declined again to 41.73 percent, 37.62 percent and 36.18 percent in 1974 and 1975 and 1976 respectively. It had slightly declined to 36.91 percent and 34.18 percent in 1977 and 1978 respectively. But in 1979 it had further declined to 31.39 percent.
In Saudi Arabia the contribution of agriculture and allied industries from 1971 to 1979 was between 1 percent and 3 percent. During this period the rate of decline of the contribution of agriculture in its GDP was 3.74 percent, 2.80 percent, 1.14 percent, 0.99 percent, 0.96 percent and 0.90 percent in 1972, 1973, 1974, 1975, 1976 and 1977 respectively. This had again increased to 1 percent and 1.03 percent in 1978 and 1979 respectively. In case of United Arab Emirates (UAE) the contribution of agriculture and allied services to its GDP from 1971 to 1979 was between less than 1 percent to 2 percent. During 1971-73 the rate of decline was 1.79 percent, 1.36 percent and less than 1 percent in 1972, 1973, and 1974 respectively. This had increased to nearly 1 percent in both 1975 and 1976. Again it had declined to 0.81 percent in 1977 and increased to 0.87 percent in 1978.

While studying the importance of agriculture in India and Arab Oil Exporting Countries we have seen in details the dependence of population of these countries on agriculture as well as contribution of agriculture and allied industries in their Gross domestic product (GDP). On the basis of this information and statistics it can be concluded that majority of population of India depends on agriculture and the contribution of agriculture
and allied services to the gross domestic product is comparatively more in India than that in Arab Oil Exporting Countries. Hence agriculture plays an important role in Indian economy. It accounts for nearly 50 percent of national income, and about 70 percent of the population derives its livelihood from land. However, the characteristics of some of the economies of Arab Oil Exporting Countries like Iraq, Oman and Saudi Arabia indicate a high degree of dualism. Because in these countries agriculture employs more working force of the country and contributes less to gross domestic product. On the contrary, manufacturing including oil employs less working force of the country and contributes more to gross domestic product. This disparity is seen because these countries have employed less capital and outdated technology in agriculture, while employing more capital and modern technology in industrial fields.

It is clear that India is an agricultural economy. Economies of the most of the Arab Oil Exporting Countries are non-agricultural. We can examine the production structure of agricultural goods in India as well as

3. Ibid.
in Arab Oil Exporting Countries. The possibilities of economic co-operation between India and Arab Oil Exporting Countries largely depend on the production structure of different agricultural goods in these countries. If these countries produce different agricultural goods needed by each other then there are more chances for increasing exchange of such goods between these countries. This ultimately helps them to enhance co-operation between themselves.

The important factors which influence agricultural production are fertility of soil, land tenure system, climate, rainfall and capital investment in the form of irrigation facilities, fertilizers and flood control etc. In many of the developing countries of Asia, land productivity have remained very low, because of the lack of investment in lands such as flood control, irri-

1. In economic integration the participating countries can obtain more benefits if they are producing similar agricultural goods presently, and if there is possibility of producing different agricultural goods, or if they are producing different agricultural goods presently. It means the potential as well as actual dissimilar production of agricultural goods enables them to enhance interexchange of these goods between themselves. However, in economic co-operation through various agreements the participating countries have to increase exchange of at least some of the agricultural goods between themselves. Hence there is more possibility of economic co-operation between countries which are producing such goods needed by each other.
gation and drainage. As compared to India the Arab Oil Exporting Countries have high per capita income as well as high national income. But availability of capital to agriculture in India as well as in Arab Oil Exporting Countries is more or less the same. At the same time the hot and humid climate, less rainfall and sandy nature of land in most of the Arab Oil Exporting Countries is responsible to restrict the agricultural activities in these countries. Moreover, India and the Arab Oil Exporting Countries represent the same features of age old agriculture. Therefore, the average production of different agricultural goods and share of these agricultural goods in total agricultural production is considered to find out the production structure of agricultural goods in India and Arab Oil Exporting Countries.

ii) **Agricultural Production in India and Arab Oil Exporting Countries** :

Agriculture is the most important form of economic activity in India. It is because "the agricultural sector contributes nearly one-half of the national income, provides livelihood to about three-fourth of the population, supplies the bulk of wage goods required by the non-agricultural
sector and raw materials for a large section of industry. It also provides a substantial portion of the country's exports. Transport, marketing, processing and other aspects of agricultural production also have a strong bearing on the national economy.1

The important agricultural crops produced in India are cereals like rice, wheat, barley, maize, millet, pulses, root crops such as potatoes, sweet potatoes, cassava, oil seeds such as groundnuts etc. It also grows cash crops such as sugar cane, coffee, tea, tobacco, jute, onions, vegetables, like tomatoes, cauliflower and fruits like apples, pears, orange, mangoes and pineapples. It is also interesting to note that there are two outstanding features of agricultural production in India. They are the wide variety of crops and the preponderance of food over non-food crops.2 On the contrary, agriculture is not an important economic activity in most of the Arab Oil Exporting countries. Due to the non-conducive climates the agricultural activities are limited only to a small part of these countries. Among these countries the agricultural activity is

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2. Ibid.
found to be important in Iraq and Saudi Arabia, and to some extent it is important in Oman. Therefore the production structure of agricultural goods in Arab Oil Exporting Countries is related with few agricultural crops and the preponderance of non-food crops over food crops. The production of different agricultural crops and importance of some of the agricultural crops in total agricultural production of India and Arab Oil Exporting Countries is more clear from the following facts.

a) Agricultural Production in India:

Of all the crops produced in India rice is the most important from the viewpoint of consideration of farm output. The average production of rice in 1971 was 64602 thousand tonnes. It had increased from 57949 thousand tonnes in 1972 to 67600 thousand tonnes in 1973. In 1974 it had fallen to 59368 thousand tonnes, and increased to 74186 thousand tonnes in 1975 again. But in 1976 it had declined to 70500 thousand tonnes. However, the increase in production continued to 79006 thousand tonnes, and 80743 thousand tonnes during the year 1977 and 1978.

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1. In most of the Arab Oil Exporting Countries the production of dates a non-food crop is more as compared to other food crops. In a country like Iraq, dates are after oil, one of the biggest export commodities. The Middle East and North Africa, 1978-79, Europa Publications Ltd, 18 Bedford Square, London, WC 1978, p. 386.
respectively. Again it had declined to 69000 thousand tonnes in 1979 (See Table 3.3). Although the share of rice production to total agricultural production varied from more than 13 per cent to more than 15 per cent during 1971 to 1979, it had declined from 15.05 per cent in 1971 to 14.15 per cent in 1972. In 1973 it had increased to 15.52 per cent and fallen to 14.13 per cent in 1974 again. But in 1975 it had increased to 15.81 per cent and again declined to nearly 15 per cent in 1976. Again in 1977 it had increased to 15.73 per cent. However, the decline continued to 15.23 per cent and 13.99 per cent during the year 1978 and 1979 respectively (See Table 3.3). These details clearly show that rice is an important crop grown in India. In this respect rice is supposed to be main food of India. And also an important source of foreign exchange earnings.

The other important field crops in India are wheat, pulses, millets and sorghum. Among these the production of wheat was 23.83 million tonnes in 1971. This had increased to 26.41 million tonnes in 1972, and fallen to 24.92

1. Its continuous trade deficit from 1971 to 1977 has changed as trade surplus in the years 1978 and 1979.
Million tonnes and 21.78 million tonnes in 1973, and 1974 respectively. It had again increased to 24.1 million tonnes in 1975. And the increased in production continued to 28.14 million tonnes, 29.01 million tonnes, 31.75 million tonnes and 34.98 million tonnes in 1976, 1977, 1978 and 1979 respectively (See Table 3.3).

The share of production of wheat to total agricultural production varied from 5.14 per cent to 7.09 per cent during 1971 to 1979. This share had increased from 5.55 per cent in 1971 to 6.61 per cent in 1972. However, the decline continued to 5.72 per cent, 5.18 per cent, and 5.14 per cent during the year 1973, 1974 and 1975 respectively. In 1976 it had increased to 6.03 per cent and fallen down to 5.78 per cent in 1977. Again in 1978 and 1979 it had increased to 5.99 per cent and 7.09 per cent respectively (See Table 3.3). Moreover, the production of pulses is also an important economic activity in India. The share of which in the total agricultural production during 1971-79 was nearly 2.50 per cent.

The share of millet and sorghum in the total agricultural production varied from 1.67 per cent to 2.16 per cent and 1.61 per cent to 2.48 per cent respectively during the period from 1971-79 (See Table 3.3).
In India, there are crops like beans dry, groundnuts, chickpeas and maize also. The share of production of these crops to total agricultural production varied less than 1 per cent to little more than 2 per cent during the period from 1971 to 1979. While crops like sugar cane, coffee, tea, tobacco, jute and onions are the important cash crops of India. Among these crops sugarcane forms more share of production to total agricultural production during the period from 1971 to 1979. The share of its production to the total agricultural production varied from 26.47 to 33.50 per cent during the period from 1971 (see Table 3.3). Other crops formed less than 1 per cent of the total agricultural production. However, all these crops are important from the viewpoint of income since they are the cash crops.

The crops like barley and potatoes are also grown in India. During 1971-79 the share of production of barley in total agricultural production varied between less than 1 per cent. While the share of production of potatoes in the total agricultural production during the period from 1971-79 varied between less than 1 per cent and little more than 2 per cent. Cabbages, tomatoes and cauliflower are the important vegetables grown in India. The
of tomatoes and cauliflower in the total agricultural production during 1971-79 varied between less than 1 percent. Moreover, the apples, mangoes and oranges are also prominent fruits grown in India.

b) **Agricultural Production in Arab Oil Exporting Countries**:

The agricultural sector, in most of the Arab Oil Exporting Countries is limited but agricultural production in those countries is confined to a few agricultural goods. But in recent years with the huge earnings of oil revenues, the governments in all those countries have started diversifying their activities from a single sector, i.e., production of petroleum and petroleum products, to the development of other sectors. These countries are trying to attain self-sufficiency in production of some of the agricultural products.

**Bahrain**

Before the production of oil and the construction of oil refinery, the traditional occupations of Bahraini's were agriculture, fishing (including pearl-fishing) and boat construction. These traditional occupations continue but on a much smaller scale than before. There is more scope

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for the expansion of agricultural activities. Because only about half the cultivable land in the country is actually under cultivation. However, the main problem is that of irrigation, which can be solved through desali- ni- tion of sea water with cheaper methods.

In Bahrain among 60,000 of the total work force, about 4000 are engaged in agriculture and fisheries. While about 1250 acres of land are used for the cultivation of dates, 750 acres are being useful for vegetables, about 1250 acres are used for alfalfa for livestock feed, and 250 acres are used for the cultivation of citrus and other fruits.

The annual rainfall in the country is less than 3". This water is adequate for agricultural purposes, particularly for the cultivation of the date palm. Cultivation of the date palm in the country is through traditional methods. The whole production of dates is consumed locally. The other crops grown in the country during the winter are tomatoes, cucumbers, melons, cabbage, cauliflower, carrots, onions, egg plants, okra and salad vegetables.

There is an experimental and model farm at Budaiya established by government of Bahrain. In this farm
improved seed and plant samples are grown experimentally and sold to the local farmers at concessional rates. This centre also gives advice to farmers and provides agricultural machinery.

From the above facts it is clear that the agricultural sector in Bahrain is very small.

Production of few agricultural goods is insufficient for domestic consumption. The urbanization of the fertile land in the country, the lowering of the water table and increasing salinity of the soil are the important difficulties faced by the agricultural sector in Bahrain.

Iraq:

In Iraq agriculture is of secondary importance as compared to oil industry. The population of the country largely depends on agriculture for its living. Because in Iraq agriculture is main source of employment and next to oil, the most important sector. Despite the importance of agriculture, the country depends more on imports of agricultural goods for meeting its requirements. The country's agriculture is in the

state of backwardness and has a primitive nature because of the use of traditional methods. The important agricultural region in Iraq is the Tigris Euphrates plain. Iraq uses land to produce cereals like wheat, rice, barley, maize, millet, sargho, and pulses. It grows cash crops like sugarcane, sugar beet, tobacco, onions, and dates. Cotton is also grown on a small scale in central Iraq. The vegetables like cauliflower, cabbages, and tomatoes are also grown. Fruits like pumpkins, cucumbers, eggplants, water melons etc. are also grown. However, Iraq is a world famous producer and exporters of dates. Dates after oil is the biggest export commodity.

Wheat occupies more crop production as compared with other field crops grown in Iraq. The production of wheat had increased from 8 million tonnes in 1971 to 2.63 million tonnes in 1972. But in 1973 it


had declined to 0.9 million tonnes. Again in 1974 it had increased to 1.34 million tonnes, and fallen to 0.8 million tonnes in 1975. In the same way it had increased to 1.3 million tonnes in 1976, and declined to 0.6 million tonnes. However, the increased continued to 0.9 and 1.5 million tonnes during the year 1978 and 1979 (See Table 3.3). While during the period from 1971 to 1979 the share of wheat production to total agricultural production varied from 11.46 percent to 25.68 percent (See Table 3.3).

Among other field crops barley is also an important crop grown in Iraq. Normally Iraq produces an exportable surplus of barley, though in years of low rainfall barley exports are not possible. The production of barley was increased from 0.4 million tonnes in 1971 to 1.5 million tonnes in 1972. But it had fallen to 0.5 million tonnes in 1973, and increased to 0.5 million tonnes in 1974. Again in 1975 it had declined to 0.4 million tonnes and increased to 0.5 million tonnes in 1976 and declined to 0.5 million tonnes in 1977. In both 1978 and 1979 it had increased to 0.6 million tonnes and 0.9 million tonnes respectively (See Table 3.3). As considered the share

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of its production to total agricultural production, barley forms the important crop in Iraq. It formed 7.38 percent to 9.84 percent of total agricultural production during the period from 1971 to 1979 (See Table 3.3). Iraq also grows rice and pulses. The average production of rice varied from 0.6 million tonnes to 0.3 million tonnes during the period from 1971 to 1979. While its share of production to total agricultural production during the same period varied from 1.24 percent to 5.24 percent. In the same way the average production of pulses varied from 37 thousand tonnes to 45 thousand tonnes, during the period from 1971 to 1979. And the share of its production in total agricultural production of Iraq during the same period had varied between less than 1 percent (See Table 3.3).

Besides the above referred crops there are crops like maize, potatoes, beans dry etc. These crops occupied less than 1 percent of the total agricultural production of Iraq during the period from 1971 to 1979. The cash crops like sugarcane, tobacco and onions are grown in Iraq. The share of production of sugarcane and onions in total agricultural production of Iraq during 1971 to 1979 varied from less than 1 percent to little more than 3 percent. While the share of
production of tobacco to total agricultural production of Iraq during the same period varied from less than 1 per cent. Cabbages, tomatoes and cauliflowers are the important vegetables grown in Iraq. But from the point of view of production these crops form less than 1 per cent of share of production to total agricultural production of Iraq. The pumpkins, lentils, chickpeas, eggplants, water melons, cucumbers and grapes are also prominent fruits grown in Iraq. Among these fruits the share of production of watermelon in total agricultural production of Iraq during 1971 to 1979 varied from 5.08 per cent to 10.54 per cent (See Table 3.3).

From the above study of cropping pattern of Iraq it becomes clear that from the point of view of share of production in total agricultural production wheat, barley and rice are the important crops grown in Iraq. Among these cereals wheat is found to be relatively more important from the viewpoint of average production as well as from share of its production to total agricultural production of the country. In this respect wheat is an important food of Iraq. But its production in the country is not sufficient for domestic consumption. Hence it cannot be a source of foreign exchange.

Iraq depends more on imports of food grains like wheat. For details refer chapter V.
Kuwait

Kuwait is totally a non-agricultural country. Because of its geographical location in barren desert, the agricultural base is negligible and economy is entirely dependent for its foods on imports. But there are signs, however, that an increasing interest is being taken in agriculture. In 1977, total cultivated area was estimated at 17000 dunums. Of this cultivated area maximum vegetables and crops occupy about 6000 dunums. A government experimental farm has been established, which occupies about 90 acres of cultivated land. The purpose is to test crops which can be grown with brackish water. The farm has produced many types of vegetables as well as plants and trees which are used in public gardens. It is also interesting to note that in recent years the growing of dates in the country has increased.

In the village of Al Jahara, there are some wells containing potable water. This water is used for irrigation in the villages and small amounts of vegetables and date palms are grown.

In Oman agriculture does not appear to be an important economic activity as compared to the production of petroleum and petroleum products. Moreover, it provides livelihood for the majority of population in the country. Prior to oil exploration the economy of Oman was dominated by subsistence agriculture. At present subsistence farming dominates Oman's agriculture, because of the very wide variations in rainfall from one year to another. Farming is heavily dependent on irrigation. Annual rainfall is very negligible. It is 2" in Muscat and 25" to 30" in Dhofar. Therefore agriculture is dependent on ground water and irrigation. In this respect Omani farmers obtain his water from irrigation from wells and the falaj system which is peculiar to Oman. Oman uses land to produce cereals like wheat, root and tubers, pulses, vegetables, melons, onions, bananas, dates, oranges and mangoes. Among these crops the production of wheat in Oman had fallen from 5 thousand tonnes in 1973 to 3 thousand tonnes in 1974. It had remained

1. NCAER, Survey of India's export potential within the Indian Ocean basin and nearby areas, Trucial states Abu Dhabi, Dhahi, Muscat and Oman, NCAER, New Delhi, 1970, p. 140.
constant at 3 thousand tonnes during the period from 1975 to 1977. It had increased to 4 thousand tonnes in 1978 and remained constant at 4 thousand tonnes in the year 1979 (See Table 2.3). During the period from 1973 to 1979 the share of wheat production to total agricultural production varied from 3.66 per cent to 18.52 per cent.

Onions and bananas are the other crops grown in Oman. The production of onion had increased from 6 thousand tonnes in 1971 to 7 thousand tonnes in 1972. This had remained constant at 7 thousand tonnes in 1973. But in 1974 it had increased to 8 thousand tonnes and remained constant at 8 thousand tonnes in 1975. In 1976 it had fallen to 7 thousand tonnes and increased to 8 thousand tonnes in 1977. In both 1978, and 1979 it had remained constant at 8 thousand tonnes respectively (See Table 2.3). Oman also produces crops like pulses, vegetables, melons, bananas, dates, oranges and mangoes. But the annual average production as well as the share of production of each of these crops in total agricultural production of Oman during the period from 1971 to 1979 was very small.

From the above discussion it is clear that the agricultural production in Oman is confined to very limited agricultural goods. But it must be noted that "the main aim of the agricultural policy introduced
after 1970 was to utilise Oman's natural resources and to make the country more self-sufficient in food and products which can be grown in Oman as well as to increase production for export. Oman has the advantage of being the only country from the Arabian Gulf where agriculture has been practised on a large scale in the past and where there is scope for expansion in modern circumstances.¹

Qatar²:

In Qatar agriculture is still in a developing state. Most of the population of the country is employed in the oil industry. Export of petroleum and petroleum products is the main source of country's salth. Qatar uses land to produce crops like vegetables such as tomatoes, marrows and cucumbers. The production of certain fruits and planting of trees is making rapid progress. Among these crops Qatar had already achieved the self-subsidiary in the production of vegetables, fruits and plantation of trees. It is interesting to note that some vegetables mainly tomatoes, marrows, and cucumbers are now exported to other Gulf states.

¹ Lovjiet Kohli, Oman the emergence of a new era, Published in 'The New Arab', Vol.1, January 1978, p.32.

Saudi Arabia:

Agriculture is not the most important economic activity in Saudi Arabia, even then it gives employment to half of the population of the country. Agriculture in the country is confined to oasis and to irrigated region. Saudi Arabia uses land to produce cereals like wheat, sorghum, mallet, barley and rice. It also produces tomatoes, onions, pulses, sesame seed and maize. Production of wheat which is the second largest crop after dates provided only 25 percent of requirements in 1973-74.1 During the period from 1971 to 1979 the production of wheat varied from 90 thousand tonnes to 205 thousand tonnes. This was 150 thousand tonnes in 1971 and remained constant to 150 thousand tonnes during the years 1972 and 1973 respectively. In 1974 it had declined to 90 thousand tonnes and increased to 192 thousand tonnes and 205 thousand tonnes in 1975, and 1976 respectively. In 1977 it had fallen to 125 thousand tonnes but it had increased to 150 thousand tonnes in 1978 and remained constant to 150 thousand tonnes in 1979 (See Table 3.3). In the same way during the period from 1971 to 1979 the share of wheat production in total agricultural production of Saudi Arabia varied from 6.45 percent to 14.28 percent (See Table 3.3).

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Millet and sorghum are other field crops grown in Saudi Arabia. The average production of millet in 1971 was 134 thousand tonnes. This had increased to 135 thousand tonnes in 1972 and declined to 130 thousand tonnes in 1973. In 1974 this had increased to 150 thousand tonnes and remained constant to 150 thousand tonnes in 1975 and 1976 respectively. But in 1977 and 1978 it had declined to 13 thousand and 10 thousand tonnes respectively. In the year 1979 it had remained constant at 10 thousand tonnes (See Table 3.3). Considering the share of production of millet in total agricultural production of Saudi Arabia we find that it varied from less than 1 percent to 13.19 percent (See Table 3.3). While the average production of sorghum was 190 thousand tonnes in 1971. This had remained constant at 190 thousand tonnes in 1972 but declined to 175 thousand tonnes in 1973. In 1974 this had increased to 200 thousand tonnes in 1975 and 1976 respectively. It had again increased to 273 thousand tonnes in 1977. However, it declined to 90 thousand tonnes in 1978 and again increased to 100 thousand tonnes in 1979 (See Table 3.3). The share of production of sorghum in total agricultural production of Saudi Arabia during 1971 to 1979 varied 4.62 percent to 17.59 percent (See Table 3.3).

Among the cereals it also grows rich barley and maize. But the share of production of these crops
in total agricultural production of Saudi Arabia during 1971–79 varied from less than 1 percent to 1.93 percent. Among vegetables Saudi Arabia grows tomatoes and among cash crops it grows onions. The share of production of tomatoes in total agricultural production of Saudi Arabia varied from 5.01 to 9.81 percent during the period from 1971 to 1979. In the same way the share of production of onions in its total agricultural production during the same period varied from 1.33 percent to 4.45 percent (See Table 3.3). Pulses and sesame seed are the field crops grown in Saudi Arabia. But the share of production of these crops in total agricultural production of Saudi Arabia varied from less than 1 percent to 1.50 percent during the period from 1971 to 1979 (See Table 3.3).

From the above discussion of cropping pattern of Saudi Arabia it is clear that cereals like wheat, millet and sorghum appear to be the important farm crops which are grown in Saudi Arabia. But production of these crops is not sufficient for the domestic consumptions.

The above study of cropping pattern of India and Arab Oil Exporting Countries shows that India grows a variety of agricultural crops. The production of different cereals like rice, wheat, millet and pulses is an important economic activity in the country. Among these cereals wheat and rice are considered as important crops of food in India. However, the production of these crops is not main source of foreign exchange earnings. The production of cash crops
like sugarcane, coffee, tea, jute, onions and groundnuts in India is an important source of foreign exchange earnings. On the contrary, the Arab Oil Exporting Countries use more cultivated land for the production of cereals like wheat, rice, barley, millet, sorghan and dates. The production of dates in some of the Arab Oil Exporting Countries like in Iraq is the important source of foreign exchange earnings. However, the production of other crops in these countries is insufficient for their domestic consumption. In this respect the cropping pattern of India and Arab Oil Exporting Countries shows the possibilities to enhance exchange of agricultural goods between these countries. Ultimately it indicates the possibilities for enhancing economic co-operation between these countries. But in this respect it is also necessary to examine the trade in agricultural goods of India and Arab Oil Exporting Countries. It will help us to find out the possibility of creation of trade in agricultural goods in these countries.

It is found that over the years from 1971 to 1979 India had continuous trade balance in agricultural goods. On the contrary all the Arab Oil Exporting Countries during 1971 to 1979 have continuous trade deficit in agricultural goods. The trade balance in agricultural products of India in 1971 was US $ 9404 thousands. This had increased to US $ 35056 in thousands in 1972,
and declined to US $ 18119 thousands in 1973. In 1974 it had again increased to US $ 25361 thousands and declined to US $ 15174 thousands in 1975. In 1976, 1977 and 1978 and 1979 it had increased to US $ 23054 thousands, 60287, thousands, 71956 thousands and 138672 thousands respectively. (see Table 3.4).

On the other hand the trade deficit in agricultural products of Bahrain was US $ 2751 thousands in 1971, which had continuously increased to US $ 3257 thousands, 4472 thousands, 5208 thousands, 6349 thousands, 6989 thousands, 16299 thousands and 21289 thousands in 1972, 1973, 1974, 1975, 1976, 1977, 1978 and 1979 respectively (See Table 3.4). In case of Iraq its trade deficit in agricultural products was US $ 18248 thousands in 1971. It had declined to US $ 8800 thousand tonnes in 1972, and increased to US $ 14901 thousand, 70802 thousands, 72199 thousands in 1973, 1974 and 1975 respectively. In 1976 this had again declined to US $ 66769 thousands, increased to US $ 87967, 107675 thousands and 152114 thousands in 1977, 1978 and 1979 respectively (See Table 3.4). In the same way the trade deficit in agricultural products of Kuwait was US $ 19570 thousand tonnes in 1971. It had increased to US $ 14878 thousands, 17807 thousands, 24353 thousands and 37683 thousands in 1972, 1973, 1974 and 1975 respectively. In 1976,
it had fallen to US $33,848 thousands and again increased to US $58,570 thousands, 67,681 thousands, and 79,235 thousands in the year 1977, 1978, and 1979 respectively (See Table 3.4). The trade deficit in agricultural products of Oman has US $15,322 thousands in 1971. This deficit had continuously increased to US $16,111 thousands, 30,300 thousands, 49,996 thousands, 54,322 thousands, 57,265 thousands, 124,889 thousands, 136,712 thousands, and 175,333 thousands in 1972, 1973, 1974, 1975, 1976, 1977, 1978, and 1979 respectively (See Table 3.4). While in 1971 the trade deficit in agricultural goods of Qatar was US $22,699 thousands. It had come down to US $18,922 thousands in 1972, and increased to US $24,151 thousands and 58,985 thousands in 1973 and 1974 respectively. In 1975 it had again fallen down to US $50,676 thousands. But in 1976, 1977, 1978, and 1979 it had continuously increased to US $54,336 thousands, 105,200 thousands, 133,669 thousands, and 167,227 thousands respectively (See Table 3.4). In case of Saudi Arabia the trade deficit in agricultural products had continuously increased from US $23,267 thousands in 1971 to US $27,641 thousands, 38,526 thousands, 53,894 thousands, 69,348 thousands, 78,077 thousands, 184,355 thousands, 257,700 thousands, and 352,660 thousands, in 1972, 1973, 1974, 1975, 1976, 1977, 1978, and 1979 respectively (See Table 3.4). Moreover, it is also in
case of United Arab Emirates (UAE) the trade deficit in agricultural goods had continuously increased from US $280 thousands, $310 in 1971 to US $400 thousands, 620 thousands, 2150 thousands, 3700 thousands, 4800 thousands, 44671 thousands, 50747 thousands and 750001 thousands in 1972, 1973, 1974, 1975, 1976, 1977, 1978 and 1979 respectively (See Table 3.4).

The above discussion of trade in agricultural products indicates that during the period from 1971 to 1979 India had trade balance while all the Arab Oil Exporting Countries had trade deficit. It also reveals that, except Iraq and Qatar the trade deficit in agricultural products of other Arab Oil Exporting Countries had successively increased over the previous years during the period from 1971 to 1979. This situation helps to increase trade of agricultural goods between India and Arab Oil Exporting Countries. Hence the agricultural structure of India and Arab Oil Exporting Countries is favourable to adopt economic co-operation between these countries.

From the preceding discussion of agricultural structure of India and Arab Oil Exporting Countries it is clear that India is an agricultural country. India's majority population depends on agriculture for the
livelihoo. The agricultural sector of India contributes more to the gross domestic product (GDP) of the country than any other sector. Moreover, India grows a variety of crops like rice, wheat, pulses, sugarcane, coffee, tea, jute, onions, groundnuts etc. On the contrary all the Arab Oil Exporting countries are mainly non-agricultural. Among all the above referred Arab Countries agriculture is more important in Iraq, Saudi Arabia and to some extent in Oman. The variety of agricultural crops cultivated in these Arab countries is very limited. Moreover, all the Arab Oil Exporting Countries depend upon for their consump- tion on the imports of different agricultural products.

On this background, the economic co-operation between India and Arab Oil Exporting Countries will help them for their agricultural development. Through economic co-operation these countries can enhance interexchange of agricultural goods between themselves. This point is discussed in more detail in chapter V related to trade pattern of India and Arab Oil Exporting Countries.