CHAPTER I

INTRODUCTION

I. According to the Concise Oxford Dictionary, agriculture means a cultivation of the soil. The Encyclopaedia Britannica defines agriculture as "cultivation or tillage of the ground for the productions of plants for food." Webster's New International Dictionary defines agriculture in a broader sense as, "the Science and the art of the production of plants and animals useful to man, including to a variable extent the preparation of these products for man's use and their disposal by marketing or otherwise." While the New Standard Dictionary defines agriculture as, the Science, the art and the process of supplying human wants by raising the products of the soil. Sharvashri Srivastava S.K. and others have explained agriculture as both a science and an art of cultivation and the raising of livestock. Mr. Christopher Riston has defined agriculture as an activity in which mankind attempts to control groups of plants or animals in order to fulfil certain human wants, mainly by producing food.

While narrating the scope of agriculture, Shri B.N. Pal in his book entitled, "Principles of Agricultural Economics", states that agriculture in its widest aspect assumed to include all forms of soil production, from forestry to glass-house culture, from fishery to artificial insemination and from breeding to horticulture. Industrial classification, includes cultivation of land, rearing and maintenance of livestock, forest
operations, fishing and hunting, but it excludes fruit growing or plantation. The Second Agricultural Labour Enquiry (1956-57) in its report had included dairy farming, horticulture, raising of livestock, bees, poultry, etc., in agricultural operations. Again, our Planning Commission included such activities as agricultural production, land reforms, soil conservation, animal husbandry and dairying, fishery, forestry, irrigation, poultry in agriculture and allied activities for the purpose of allocating financial aid for development of agriculture.

In view of what has been stated above, one can say that agriculture is a very wide and comprehensive economic activity embracing cultivation of soil for growing of plants for food and raw-materials, raising and maintenance of livestock, forestry, fishing, hunting, horticulture, fruit growing, glass-house culture, bees, poultry, etc. Thus, in a narrow sense for the purpose of this study, agriculture is an economic activity in which human being labours to cultivate the soil for growing plants and undertakes allied activities for satisfying certain human wants.

II. ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT

Agriculture makes a significant contribution to economic development. The fundamental Physiocratic proposition was that only agriculture produced an economic surplus or "net product" over costs of production and, therefore, the agricultural sector plays the most strategic role in economic development. Quesnay
believed that economic development in a country was not possible without agricultural growth. The industrial and other sectors of the economy were wholly dependent on agricultural sector since the demand for manufacture and other services depend on the size of economic surplus which was wholly derived from agriculture. The basic model underlying classical economics, the role of agriculture in economic development was given a crucial significance.

In considering the contribution of agriculture in the economic growth of a country, one should recognize an element of ambiguity. Since any sector is a part of an interdependent system represented by the country's economy, what a sector does is not fully attributable or credited to it but is contingent upon what happens in the other sectors and perhaps also outside the country. The first type of contribution of agriculture to the economic growth of a nation is that constituted by growth of product within the sector itself. An increase in the net output of agriculture represents a rise in the GNP of the country, since the later is the sum of increases in the net products of the several sectors. The subject of contribution of agriculture in economic development is quite complex.

The record of birth of organised society in almost any civilization has invariably coincided with the time that man began to regulate his environment through the cultivation of crops and the husbandry of animals. Agriculture is the oldest business in the world, and even today the largest. It is the occupation of a majority of the human race. The Food and
Agricultural Organisation of the United Nations estimates that in the world as a whole, 50 per cent of the population is engaged in agriculture, or dependent on agriculture. Eitcher and Witt are of the view that in a typical less developed nation, agriculture occupies half or more of the labour force and generates from one fourth to one half of the gross national product. In a majority of the developed nations also, during the primary stage of development, the labour force in agriculture was high. Dovring has, with the help of data obtained from advanced countries, indicated that the absolute number of people in agriculture increased in early stages of growth of the presently advanced nations and declined only after a relatively long period of time.

According to Mellor, when development occurs, the population grows and per capita incomes rises. To feed more people a better quality diet, agricultural production must increase. Life and food are inseparable. As a hymn from India's ancient books of wisdom, the Upanishads, puts it:

From food are born all creatures that live on earth, afterwards they live on food and when they die they return to food.

The search for food is the foundation of all other quests. The wish for plenty - whether from hunt, catch or harvest - is easily mankind's oldest collective thought. The earliest civilizations arose when hunter turned into farmer. Agriculture cradled culture. If food supplies fail to expand in pace with growth of demand, the result is likely to be substantial rise in
food prices leading to discontent and pressure on wage rates with consequent adverse effects on industrial profits, investment and economic growth.

Nicholls William H. has explained in his paper entitled 'The Place of Agriculture in Economic Development' that until underdeveloped countries succeed in achieving a sustained reliable food surplus, they had not fulfilled the fundamental precondition for economic development. England and Western Europe were able to initiate industrial revolution because an agricultural revolution had already provided a domestic food surplus.

It can be argued that a way out is to import food to make deficient domestic production and/or inadequate marketable surplus. But it is easier said than done. The foreign exchange is usually in short supply and urgently required for imports of machinery and other requisites for industrial development that cannot be produced domestically. There is no simple or general answer to this question of import substitution that Chenery has described as "the most important and most difficult aspect of development....." According to Johnston and Mellor, in view of the potential that exists for increasing agricultural productivity, it is likely to be advantageous, to obtain the additional food supplies by increased domestic output rather than by relying on expansion of exports to finance enlarged food imports.
Agriculture may make significant contribution to net foreign exchange earnings through displacement of current and potential imports and through enlarged exports. According to Mellor, it is through increased agricultural exports that agriculture plays its most obvious role in generating foreign exchange. Most low-income countries rely on exports on primary products in general and agricultural commodities specially as their major source of foreign exchange. According to Johnston and Mellor, a profitable export crop can frequently be added to an existing cropping system; the capital requirements for such innovations are often moderate and largely dependent on direct, non-monetary investment by farmers.

An underdeveloped country requires huge amount of capital to create and expand manufacturing and mining enterprises, for overhead investment in transportation and utilities and for the revenue needed to expand education and development services. The sheer size of agricultural sector as the only major existing industry in the underdeveloped countries, points to its importance as a source of capital for over-all economic growth. Since there is scope for raising productivity in agriculture by means that requires only moderate capital outlays, it is possible for the agricultural sector to make net contribution to the raw materials capital requirements for infra-structures and for industrial expansion.

Agriculture provides most of the raw materials required by industries. It also provides raw materials to industrial nations. The raw material situation assumes an important place,
when war begins and it is an accepted fact that a nation wins which has the largest raw material supplies. It is because of this that agricultural production has been practised in the industrial countries; they want to assure themselves of regular raw material supplies. Raw materials are as necessary for peace-time industries as for war-time operations. Considering this fact, one has to admit that agriculture, the source of raw material, is important.

Agricultural progress is normally a precondition for industrial development. Economic historians generally concur that there are no cases of successful development of major country in which a rise in agricultural productivity did not precede or accompany industrial development. In the case of closed economy, one of the most important preconditions of industrial expansion is the achievement of a rate of increase in agricultural productivity. Rising agricultural productivity supports and sustains industrial development in several ways. First, it permits agriculture to release part of its labour force for industrial employment while meeting the increasing food needs of the non-agricultural sector. According to Lewis, it is easy to draw man power from agriculture for manufacturing and other expanding sectors. Johnston and Mellor also believe that in any event the bulk of the labour for the expanding sectors must be drawn from agriculture in early stages of development simply because there are almost no other sector. Second, it raises agricultural income, thereby increasing the rural purchasing power needed to buy the new industrial goods and rural savings.
which may then be mobilised, by direct or indirect means, to finance industrial development. Finally, it enables agriculture to supply the major wage-goods (food) for industrial workers at prices favourable to the profitability of new industry.

For an open economy, with access to international trade, the contribution of generally rising agricultural productivity to industrial development may be diminished. For the given nation may find it more economical to import some of its food needs because its comparative advantage lies in non-food production, some of which it may export in exchange for food.

According to Nicholls, for overall economic growth, balanced agricultural and industrial development is needed. Lewis has also indicated that for the overall economic development of the country, there should be a proper balance between the growth of manufacturing and agriculture. No underdeveloped country can at any stage afford to concentrate all its investment on either agricultural or industrial development until it has succeeded in achieving a reliable food surplus.

III. SIGNIFICANCE OF THE STUDY

The farm entrepreneurs are the leading group of cultivators who get higher net returns from their holdings in comparison to other sections of the farmers because they make a more rational use of their production-factors and adopt technical innovations more quickly and attain high rate of productivity and income by skilful appliance of modern farming inputs, such as
irrigation, fertilizers, agricultural implements or by an early introduction of new methods of agricultural practices, or by better farm organization. These progressive farmers or entrepreneurs are identical with the innovators or in other words, early adopters, who are quite ahead of the rest of the other farmers.

Despite the pride of place agricultural sector enjoys in our economy by providing livelihood to about 70 per cent of the population and contributing a major share in the national income, studies on entrepreneurship in such a vital sector are quite few. Even such few studies on farmers were mostly concerned with the adoption of innovations, decision making behaviour and how farmers of varying landholdings respond to the various opportunities and so on. For instance Epstein in his study identified the characteristics of farm entrepreneurs. He concluded that high education, contacts with various people, innovation and adoption of improved practices in farming make an agricultural entrepreneurs. Sinha and Mehta indicated that farmers with medium size land holdings show greater motivation to achieve and readiness to change compared to both small and large farmers and the younger ones are better disposed to achieve change. Sambrani in a study pointed out that the subsistence farmer is not irrational. He will hesitate about the adoption of an innovation that has proved successful elsewhere, not of illogical traits; but because of the involved risks. Further, he stated low aspiration and low productive expectation which force
him to avoid most risks. Singh showed that high scores on attitude towards farming, preference for activity, pride in work, upward striving, continuous decision-making were associated with successful farm behaviour, low scores on these variables were associated with static or declining farm success. In yet another study on the entrepreneurial behaviour of small farmers, Nandapurkar found that those farmers who participated in the various extension programmes and demonstrations exhibited greater entrepreneurial thrust as compared to non-participants. He suggests that entrepreneurial behaviour could be promoted by means of educational programmes. Swamy has focused on entrepreneurship of migrated farmers. He found that neither agricultural entrepreneurship nor migration of farmers received adequate attention despite their importance in the furtherance of economic development and integrity of the nation.

Thus, it could be observed from the above that entrepreneurship as a variable in farming is less recognised. Further, research-based literature on agricultural entrepreneurship is too limited. Of the few studies, perhaps none of them thoroughly examined agricultural entrepreneurship keeping in mind the different variables such as farm size groups, education groups, age groups, size of family groups, caste groups, Income groups.

To provide an insight into the various aspects discussed above, the present study has been carried out with the following objectives:
(1) To examine the role and significance of agriculture in economic development.

(2) To review the role of farm entrepreneurs in agricultural development.

(3) To measure the entrepreneurial ability in farming.

(4) To derive appropriate conclusions for improving the role of farm entrepreneurs in agricultural development.

Methodology:

The study is empirical in nature and is based on primary and secondary data. It is mainly based on the primary data. An individual farmer's schedule was designed and the interviewing method was used to collect data from the sample households of Bharuch district. The schedule was designed in such a way as to collect quantitative and qualitative informations on social, economical, and psychological attitudes of farm entrepreneurs and their innovativeness in agricultural development.

A list of farmers, according to the size of land holding, from 12 (twelve) villages of six (6) talukas of Bharuch district was prepared. Out of all the small, medium and large farmers, with the help of random sampling, 220 households were selected. The frequency distribution of selected farmers has been presented in the following table:
Frequency Distribution of the respondents by their size of land holding and villages

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Location of sample surveyed</th>
<th>Large farmers</th>
<th>Medium farmers</th>
<th>Small farmers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taluka Villages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Bharuch</td>
<td>11</td>
<td>05</td>
<td>04</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Zadeswar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nikora</td>
<td>04</td>
<td>08</td>
<td>08</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Jambusar</td>
<td>05</td>
<td>01</td>
<td>02</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>Sarod</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nothna</td>
<td>06</td>
<td>03</td>
<td>03</td>
<td>12</td>
</tr>
<tr>
<td>3.</td>
<td>Jhagadia</td>
<td>09</td>
<td>03</td>
<td>08</td>
<td>20</td>
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<tr>
<td></td>
<td>Rajpardi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Umarilla</td>
<td>10</td>
<td>07</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>4.</td>
<td>Nandod</td>
<td>05</td>
<td>11</td>
<td>04</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Rajpilpa</td>
<td></td>
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<tr>
<td></td>
<td>Vanazer</td>
<td>03</td>
<td>07</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>5.</td>
<td>Dediapada</td>
<td>10</td>
<td>08</td>
<td>02</td>
<td>20</td>
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<tr>
<td></td>
<td>Bhatpur</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6.</td>
<td>Valia</td>
<td>09</td>
<td>07</td>
<td>06</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Borkhadi</td>
<td>08</td>
<td>--</td>
<td>--</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>Netrang</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>84</td>
<td>68</td>
<td>68</td>
<td>220</td>
</tr>
</tbody>
</table>

It is clear from the table that out of the total 220 respondents, 84 farmers (30.18 per cent of the total) were large farmers, 68 farmers (30.91 per cent out of the total) were medium farmers, and 68 farmers (30.91 per cent of the total) were small farmers.

The information regarding other five variables viz., education group, age group, size of family group, caste group and income group has been presented in the following paragraphs:
In the education group out of 220 sample farmers, 129 farmers (58.64 per cent of the total) were educated upto primary/middle school level, 67 farmers (30.45 per cent of the total) were educated upto high school/intermediate level and 24 farmers (10.91 per cent of the total) were educated upto graduate/postgraduate level.

In the case of age group, out of the total 220 sample farmers 37 farmers (16.82 per cent of the total) were in the young age group (upto 35 years), 135 sample farmers (61.36 per cent of the total) were in the middle age group (35.1 to 55 years) and 48 farmers (21.82 per cent of the total) were in the old age group (55.1 and above).

The size of family group has been divided in 3 sub-groups namely small, medium and large family. Out of 220 farmers 104 farmers (47.27 per cent of the total) belongs to small family (upto 5 members), 97 farmers (44.09 per cent of the total) were of medium family (6 to 10 members) and 19 farmers (8.64 per cent of the total) were of large family (more than 10 members).

In the case of caste group, 103 farmers (46.82 per cent of the total) were those belonging to caste `B' (B.C., S.T. and Baxi). 117 households (53.18 per cent of the total) were in the caste `O' or those other than B.C., S.T. and Baxi panch groups.

Finally, in the income group considered in the study out 220 sample farmers, 80 farmers (36.36 per cent of the total) were in
low income group, (annual income ranging from Rs. 1 to 18,000), 87 farmers (39.55 per cent of the total) were in the medium income group (annual income from 18001 to 36,000) and 53 farmers (24.09 per cent of the total) were in higher income group (annual income more than Rs. 36,000).

The secondary data regarding the inter-district variations and the district profile are collected from various district credit plans, the statistical outline of Bharuch district, statistical outline of Gujarat State and other Government publications. Important findings reported in various experts' committee reports and other studies on farm entrepreneurship in agricultural development have also been used. Information has also been obtained by personal visits and discussions with experts in the concerned area.

Limitations:

The subject selected for this study has a fairly wide scope. It is obviously not possible for an individual researcher to cover and do justice to all the aspects of farm entrepreneurship. The present study has a broad coverage and it is intended to provide an overall perspective about the significance of farm entrepreneurship in agricultural development.
Chapter Scheme

This study has been divided into six chapters.

Chapter -I
Introduction:
This chapter provides the rationale for the study. It also covers objectives, methodology and limitations of the study.

Chapter - II
Profile of Study Area : Bharuch district:
This chapter presents a detailed profile of Bharuch district.

Chapter - III
Role of Farm Entrepreneurs in Agricultural Development:
In this chapter the meaning of entrepreneurship and farm entrepreneurs, the significance of farm entrepreneurs in agricultural development and theoretical aspects regarding farm entrepreneurs has been presented.

Chapter - IV
Characteristics of Farm Entrepreneurs:
This chapter presents the characteristics of farm entrepreneurs.

Chapter - V
Farm Entrepreneurship and Agricultural Development - A Case Study:
In this chapter the role of farm entrepreneurs at the micro level has been studied. To understand the impact of farm
entrepreneurship at the farm level, a field survey has been carried out by way of a case study. Basic data relating to different variables such as farm size, education, age, size of family, caste, income etc., have been analysed with the help of different tools and techniques.

Chapter - VI

Summary and Conclusions:

This chapter summarises the main findings of the study and attempts to provide suggestions for improving entrepreneurial ability in agricultural development.

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REFERENCES

16. F.A.O., Production Year Book, Annual Series.


