CHAPTER I

INDIA’S AGRICULTURE AND AGRICULTURAL MARKETING

Introduction

The Agriculture is the backbone of Indian Economy. About 65% of Indian population depends directly on agriculture and it accounts for around 22% of GDP. Agriculture derives its importance from the fact that it has vital supply and demand links with the manufacturing sector. During the past five years agriculture sector has witnessed spectacular advances in the production and productivity of food grains, oilseeds, commercial crops, fruits, vegetables, food grains, poultry and dairy. India has emerged as the second largest producer of fruits and vegetables in the world in addition to being the largest overseas exporter of cashews and spices. Further, India is the highest producer of milk in the world. The Agricultural marketing is a matter of great importance to farmers, consumers, middlemen’s and society. It provides the channel of communication between farmers and the society. It also gives continuous information about the demands of the agricultural produce. Agricultural marketing in general includes all activities form farm to the kitchen of the consumers. Thus the marketing of agricultural produce has become an integral part of the modern production and consumption process. Agricultural marketing is a process by which the producers and the buyers are brought together to effect the sale on the part of the producers and make the purchase on the part of consumers.

Ref: - International journal physical and social sciences, volume2, issue5, ISSN: 2249-5894, AuthorDr. Vandana Tyagi
1.1 The history of Indian agriculture:
The post-Independence history of Indian agriculture can be broadly grouped into four periods. Before describing them, it should mention that during the colonial era famines were frequent and famine commissions were abundant. The growth rate in food production during the 1900-1947 periods was hardly 0.1 per cent. Most of the important institutional developments in agriculture emanated from the recommendations of famine commissions. The great Bengal Famine of 1942-43 provided the backdrop to India’s Independence.

The first stage 1947-64: It is the Jawaharlal Nehru era where the major emphasis was on the development of infrastructure for scientific agriculture. The steps taken included the establishment of fertilizer and pesticide factories, construction of large multi-purpose irrigation-cum-power projects, organization of community development and national extension programs and, above all, the starting of agricultural universities, beginning with the Pant Nagar University established in 1958, as well as new agricultural research institutions, as for example the Central Rice Research Institute, Cuttack, and the Central Potato Research Institute, Shimla. During this period, the population started increasing by over 3 per cent a year as a result of both the steps taken to strengthen public health care systems and advances in preventive and curative medicine. The growth in food production was inadequate to meet the consumption needs of the growing population, and food imports became essential. Such food imports, largely under the PL-480 programmed of the United States touched a peak of 10 million tones in 1966.

The second stage 1965-1985: The period coincides with the leadership of Lal Bahadur Shastri and Indira Gandhi, with Morarji Desai and Charan Singh serving as Prime Ministers during 1977-79. The emphasis was on maximizing the benefits of infrastructure created during step-I, particularly in the areas of irrigation and technology transfer. Major gaps in the strategies adopted during step-I were filled,
as for example the introduction of semi-dwarf high-yielding varieties of wheat and rice, which could utilize sunlight, water, and nutrients more efficiently and yield two to three times more than the strains included in the Intensive Agriculture District Programme (IADP) of the early 1960s. This period also saw the reorganization and strengthening of agricultural research, education and extension, and the creation of institutions to provide farmers assured marketing opportunities and remunerative prices for their produce.

The National Bank for Agriculture and Rural Development (NABARD) was set up. All these steps led to a quantum jump in the productivity and production of crops such as wheat and rice, a phenomenon christened in 1968 as the Green Revolution. C. Subramaniam (1964-67) and Jagjivan Ram provided the necessary public policy guidance and support. The Green Revolution generated a mood of self-confidence in our agricultural capability. The gains were consolidated during the Sixth Five Year Plan period (1980-85) when for the first time agricultural growth rate exceeded the general economic growth rate. Also, the growth rate in food production exceeded that of the population. The Sixth Plan achievement illustrates the benefits arising from farmer-centered priorities in investment and in the overall agricultural production strategy

**The third stage: 1985-2000**

It is an era of Rajiv Gandhi, P.V. Narasimha Rao and Atal Bihari Vajpayee, with several other Prime Minister serving for short periods.

The phase was characterized by greater emphasis on the production of pulses and oilseeds as well as of vegetables, fruits, and milk. Rajiv Gandhi introduced organizational innovations like Technology Missions, which resulted in a rapid rise in oilseed production. The Mission approach involves concurrent attention to conservation, cultivation, consumption, and commerce. Rain-fed areas and wastelands received greater attention and a Wasteland Development Board was set up. Wherever an end-to-end approach was introduced involving attention to all

*Ref: - International journal physical and social sciences, volume2, issue5, ISSN:2249-5894, Author Dr. Vandana Tyagi*
links in the production-consumption chain, progress was steady and sometimes striking as in the case of milk and egg production. This period ended with large grain reserves with the government, with the media highlighting the co-existence of “Grain Mountains and hungry millions.” This period also saw a gradual decline in public investment in irrigation and infrastructure essential for agricultural progress as well as a gradual collapse of the cooperative credit system.

**The fourth stage: 2001 to the present day:**

Despite of the efforts of Prime Ministers Atal Bihari Vajpayee and Manmohan Singh, this phase is best described as one characterized by policy fatigue, resulting in technology extension and production fatigues. No wonder that the farmers, who keep others alive, are now forced to take their own lives and 40 per cent of them want to quit farming, if there is an alternative option. The agricultural decline is taking place at a time when international prices of major food grains are going up steeply, partly owing to the use of grain for ethanol production. Land for food versus fuel is becoming a major issue. For example, the export price of wheat has raised from $197 a tone in 2005 to $263 a tone in 2007. Maize price has gone up from about $100 a tone in 2005 to $166 a tone now. International trade is also becoming free but not fair. Compounding these problems is the possibility of adverse changes in rainfall, temperature, and the sea level as a result of global warming. Melting of Himalayan ice and glaciers will result in floods of unprecedented dimensions in north India. If agricultural production does not remain above the population growth rate and if the public distribution system is starved of grain, there is every likelihood of our going back to the pre-Independence situation of recurrent famines. The grain mountains have disappeared and we are today in the era of diminishing grain reserves, escalating prices, and persistence of widespread under-nutrition.

**ef: - International journal physical and social sciences, volume2,issue5,ISSN:2249-5894,AuthorDr.Vandana Tyagi**
1.2 Role of the Agriculture in Indian economy

India is second most populous country in the world. Majority of its population lives in villages and earns their livelihood through farming. Agriculture is the backbone of Indian economy. It contributes around 22% of the total GDP. 65% of Indian population lives mainly in its 600,000 villages. Agriculture is the mainstay of the majority of the villagers as they are employed in agriculture or agriculture related services. Presence of diverse agro climate zones and a variety of soil and agro-climatic conditions have made possible the cultivation of almost every item from cash crops to food grains.

The Agriculture sector provides livelihood to about 65% of the labor force and accounts for 8.56% of India's exports. After USA, India has maximum area of arable land but productivity per hectare is nowhere near the world best. India is not in the top ten countries in terms of productivity of rice and wheat. Despite green revolution Indian agriculture sector has not been able to achieve the world level productivity. Cardinal reasons behind this are highly fragmented nature of Indian farming with close to 33% of arable land held in units of less than 2 hectares per owner. It doesn’t let farmers enjoy the economies of scale in operations and modern farming equipment proves very expensive for them. Low quality is also a problem. So there is a need to look for interventions that can help the farmers realize higher level of income.

1.2.1 Share in national income: – At the time of first world war, agriculture practical on-existence of industrial development and infrastructure. However, after the initiation of planning in India, the share of agriculture has persistently declined on account of the development of the secondary and tertiary sectors of the economy.
Table-1.1

Share of Agriculture sector in Total Gross Domestic Product

(At1999-00 Prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage in terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-51</td>
<td>56.5</td>
</tr>
<tr>
<td>1970-71</td>
<td>45.9</td>
</tr>
<tr>
<td>1990-91</td>
<td>34.0</td>
</tr>
<tr>
<td>2000-01</td>
<td>24.7</td>
</tr>
<tr>
<td>2005-06</td>
<td>19.55</td>
</tr>
<tr>
<td>2006-07</td>
<td>18.51</td>
</tr>
<tr>
<td>2007-08</td>
<td>17.8</td>
</tr>
<tr>
<td>(2004-05 Prices)</td>
<td></td>
</tr>
<tr>
<td>2008-09</td>
<td>15.7</td>
</tr>
<tr>
<td>2009-10</td>
<td>14.7</td>
</tr>
<tr>
<td>2010-11</td>
<td>14.5</td>
</tr>
<tr>
<td>2011-12</td>
<td>13.9</td>
</tr>
</tbody>
</table>


The share of agriculture in national income is often taken as an indicator of economic development. Normally, developed economies are less dependent on agriculture as compared to underdeveloped countries. For example, only 2 percent of GDP is derived from agriculture in the USA and the UK. Thus, it seems that as the country progresses, the dependence on agriculture declines.

1.2.2 Largest Employment Providing sector: - In 1951, 69.5 percent of the working population was engaged in agriculture. This percentage fell to 66.9 percent in 1991 and to 56.7 percent in 2001. In 2004-05, agriculture provided employment to 52.1 percent of the work-force. However, with rapid increase in population the absolute number of people engaged in agriculture has become exceedingly large. The development of the other sectors of the economy has not been sufficient to provide employment to the increasing additions to working population who are, therefore, forced to fall back upon agriculture even if their
marginal productivity on land is zero or nearly so. It gives rise to the familiar problem of underemployment and disguised unemployment. Most of the underdeveloped countries exhibit this heavy dependence of working population on agriculture. For example, 57 percent of the economically active population in Bangladesh was engaged in agriculture in 1999. This percent was 68 in China and 48 in Pakistan in the same year. As against this, the percent of economically active population engaged in agriculture is very much less in developed countries. For example, in Japan and France 4 percent and in USA and UK only 2 percent of the economically active population was engaged in agriculture in 1999.

### 1.2.3 Provision of food surplus to the expanding population:

Due to heavy pressure of population in labour-surplus economies like India and its rapid increase, the demand for food increases at a fast rate.

The existing levels of food consumption in these countries are very low and with a little increase in per capita income, the demand for food rises steeply (in other words it can be stated that the income elastically of demand for food is very high in developing countries). Therefore unless agriculture is able to continuously increase its marketed surplus of food grains, a crisis is likely to emerge. Many developing countries are passing through this phase and, in a bid to meet the increasing food requirement, have been compelled to import large quantities of food grains. Domestic demand or food grains is expected to increase from 207 million tones in 2004-05 to 235.6 million tones by the end of the Eleventh Five Year plan (i.e. by 2011-12) and further to 280.6 million tones by the end 2020-21. Meeting this demand would require 1.86 percent annual growth in food grains production during the Eleventh plan and 2 percent per annum beyond that. The challenges facing the economy would be clear from the fact that during the recent 10 years (1997-98 to 2006-07), food grains production increased annually by a meager 0.48 percent.

1.2.4 Contribution to capital formation: – There is a general agreement on the importance of capital formation in economic development. Unless the rate of capital formation increases to a sufficiently high degree, economic development cannot be achieved. Since agriculture happens to be the largest industry in developing countries like India, it can, and must, play an important role in pushing up the rate of capital formation. If it fails to do so the whole process of economic development will suffer a setback. The policies are advocated to extract surplus from agriculture, The transfer of labor and capital from farm to non-farm activities; Taxation of agriculture in such a way that the burden on agriculture is and turning the terms of trade against agriculture by imposing price controls on agriculture products, taxation or the use of multiple exchange rates that discriminate against agriculture. The implementation of these policy measures in the developing countries is, however, a difficult task; therefore, generation of surplus from agriculture will ultimately depend on increasing the agricultural productivity considerably.

1.2.5 Providing raw materials to industries: – The Agriculture provides raw materials to various industries of national importance. Sugar industry, jute industry, cotton textile industry, vanaspati industry are examples of some such industries which depend on agriculture for their development. The entire range of food processing industries is similarly dependant on agriculture. Therefore, unless agriculture develops, these industries will also remain backward.

1.2.6 Market for industrial product: – Since more than two thirds of the population of developing countries like India lives in rural areas, increased rural purchasing power is a valuable stimulus to industrial development. This point was emphatically brought home by Ragnar Nurkse when he stated,”the trouble is this: there is not a sufficient market for Manufactured goods in a country where peasants, farm laborers and their families, comprising typically two-third to four-

fifths of the population are too poor to buy any factory products, or anything in addition to the little they already buy. There is a lack of real purchasing power, reflecting the low productivity in agriculture. Therefore, if steps are taken to expand agriculture output and productivity, the income of the rural sector will increase causing, in turn, an increased demand for industrial products and the process of industrial development will also receive a boost up. In India, with the spread of Green Revolution to more and more areas in recent years (particularly during the two three decades), incomes of large farmers have increased considerably whereas their tax liabilities are negligible. It has increased their purchasing power substantially with the markets is witnessing a market increase. The corporate sector is very well aware of this rising demand and is reorienting its marketing strategy and production pattern to tap this large market. The manufacturers of household items (particularly items of daily use like tea, soaps, detergents, clothes, cycles, scooters, radios and transistors, television etc.) are vying with each other to get as large a chunk of this market as possible. In fact, many multinational corporations planning to enter the Indian market have an eye on this expanding market.

1.2.7 Importance in international trade:-For a number of years the three agriculture based exports of India-cotton textiles, jute and tea –accounted for more than 50 percent of export earnings of the country. If we add the export of the agricultural commodities like cashew kernels, tobacco, coffee, vanaspati oil, sugar etc.the share of agriculture in total, exports rose to around 70 to 75 percent. Such heavy dependence on agriculture commodities for export earnings reflected the underdeveloped nature of the economy. With economic progress and consequent diversification of production base, the share of agricultural goods in total exports has consistency fallen. For instance, the share of agricultural exports in total exports was 44.2 percent in 1960-61. This fell consistently to 30.7 percent in
1980-81 and 9.9 percent in 2009-10. As far as composition of imports is concerned, capital goods, industrial machinery, petroleum and petroleum products and maintenance imports have accounted for the bulk of imports. However, during certain years the country has faced severe drought conditions and large-scale imports of food grains had to be resorted to India also imports dairy products, fruits, vegetables, animal and vegetable oils and raw materials.

Table 1.2

Agricultural Exports as a percentage of Total Exports. (Rs. In crore)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural Exports</th>
<th>Total Exports</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>6,013</td>
<td>32,527</td>
<td>18.5</td>
</tr>
<tr>
<td>1996-97</td>
<td>24,161</td>
<td>118,817</td>
<td>20.3</td>
</tr>
<tr>
<td>2000-01</td>
<td>28,657</td>
<td>201,356</td>
<td>14.2</td>
</tr>
<tr>
<td>2005-06</td>
<td>61,194</td>
<td>456,418</td>
<td>10.8</td>
</tr>
<tr>
<td>2006-07</td>
<td>62,411</td>
<td>571,779</td>
<td>10.92</td>
</tr>
<tr>
<td>2007-08</td>
<td>79,040</td>
<td>6,55,864</td>
<td>12.05</td>
</tr>
<tr>
<td>2008-09</td>
<td>85,952</td>
<td>8,40,755</td>
<td>10.22</td>
</tr>
<tr>
<td>2009-10</td>
<td>87,523</td>
<td>8,45,125</td>
<td>10.59</td>
</tr>
<tr>
<td>2010-11</td>
<td>1,13,116</td>
<td>11,42,649</td>
<td>9.9</td>
</tr>
</tbody>
</table>

1.3 Nature of India’s Agriculture

At the time of Independence, India’s agriculture was in a state of backwardness. Productivity per hectare and per worker was extremely low. The techniques employed were age-old and traditional. Due to low productivity, agriculture merely provided ‘subsistence ‘to the farmers and had not become ‘commercialized’. Approximately 45 percent of the total consumption of farmers came from their own production in 1951-52. It highlights the low importance of money in the village economy. All the factors described above when taken together describe the nature of India’s agriculture. They reveal that Indian agriculture was backward and qualitatively traditional in nature on the eve of the First Five Year plan. However, it is not sufficient to call Indian agriculture backward traditional and stagnant and leave the discussion there. We must examine the causes responsible for this state of affairs. The exercise can be carried out by examining the land relations, size of holdings, agriculture techniques , irrigation facilities, widespread rural indebtedness, role of moneylenders in rural economy , etc. let us examine these causes in some detail.

1.3.1 Feudal relations of production:- At the time of Independence, three types of land tenure system were prevalent in the country – Zamindari, mahalwari and ryotwari. Approximately 57 percent area of the country was under the Zamindari system. In terms of coverage, ryotwari came second with 38 percent area, while mahalwari was restricted to only 5 percent area. The Zamindari system was based on exploitation since zamindars pressurized peasants in a variety of ways with the objectives of extracting as much rent from them as possible. The Zamindari system was a major hindrance to agriculture development. Ryots in the ryotwari system also leased out their land to tenants for cultivation and their tenants were also subjected to the same types of exploitation as prevalent under the Zamindari system.
After Independence, the state Governments enacted laws to abolish the intermediaries. However, these were entirely inadequate to have any drastic impact on the agrarian structure.

The zamindars only changed their garb and became absentee landlords. Obviously, the classes that are exploited by these landlords are the classes of tenants and agriculture workers. Though no exact estimates on tenancy are available, it has been estimated that around 50 percent of the cultivated land is under written or oral tenancy. A large number of tenants come under the category of tenants-at–will and sub–tenants. These classes of tenants possess no security of tenure and enjoy cultivation rights only so long as the landlords allow them to do so. It exposes them to the exploitative practices of the landlords. The second exploited class is constituted of agricultural workers. The class is at the lowest rung of social ladder in rural areas. It can be divided into two categories- (i) attached laborers, and (ii) casual laborers. The former are attached to some cultivation household on the basis of a written or oral contract. Normally, they are not free to work at any other place. As against this, casual laborers are free to work on the farm of any farmer. A large number of tenants have also been evicted under the guise of personal cultivation and have swelled the rank of agricultural laborers. The growing number of agricultural laborers indicates the process of ‘immiserisation’ of the rural poor.

1.3.2 Usurious capital and rural indebtedness: - The control of usurious capital is very strong on the Indian agriculture and indebtedness is a common legacy of poor farmers. During the pre-independence period, moneylenders and mahajans ruled the roost as there was no other credit agency worth the name. Taking advantage of their position, these people exploited the farmers in a number of ways. After Independence, the government has initiated a number of steps to curb their activities – the most important policy measure being the development of cooperative credit institution and the increasing participation of banks in

Ref:- Indian economy 2008 edition, Author Dr. Desai and Dr. Bhalerao, Nirali prakashan, page no. 168 to 244 and www.indiastudychannel.com
providing rural credit. However, because of a number of factors, the small and marginal farmers continue to depend on moneylenders for fulfilling their credit requirement to a large extent and thus become victims of exploitation by the latter. The phrase ‘once in debt’ expresses the condition of these farmers graphically.

The moneylenders charge exorbitant rates of interest, manipulation accounts to their advantage and often seize the land of small and marginal farmers on one pretext or the other. The usurious capital and rural indebtedness in India is a result of the social system or the relations of production prevailing in agriculture. Since long the Indian peasant has been living the life of bonded land-slave. It is this wretched existence that is responsible for this economic bankruptcy and consequently for this continued indebtedness.

1.3.3 Labour market dualism: - The excessive pressure of population on land, wages in the agricultural sector tend to be considerably lower as compared to the modern (industrial) Sector. It leads to a labor market dualism. The dualism is explained by the fact that large number of workers remain sticking to traditional agriculture despite low wage due either to ignorance of better opportunities outside agriculture, or to their inability to obtain a modern sector job despite wishing to do so, or to cost of moving being unacceptably high (Including the cost of giving up the relative security of remaining at home) in relation to the expected wage premium. Low wages in the agricultural sector lead to low per capita income and this, in turn, results in low labour productivity. The cheapness of labor in the traditional agricultural sector causes it to be used extensively there. That is, extra labor is employed to perform tasks which would be unprofitable at the modern wage rate. Moreover, cheap labor leads to the adoption of labor intensive methods of production such as cultivation by hand rather than mechanically.

Ref: Indian economy 2008 edition, Author Dr.Desai and Dr.Bhalerao, Nirali prakashan, page no.168to 244 and www.indiastudychannel.com
1.3.4 Outmoded farming techniques: – Most of the Indian farmers continue to use outmoded farming techniques. The traditional agriculture depends on the biological sources of energy (Human and animal labor), rains and dung manure. The returns to farmers under the technique of production are very meager and the nature of farming is appropriately described as ‘subsistence farming’. However, with the advent of new agricultural strategy in 1996, modern techniques of production were initiated in certain selected regions of the country like Punjab, Haryana and Western Uttar Pradesh.

As a consequence of the adoption of modern techniques of production and new high –yielding varieties of seeds, agricultural productivity registered substantial increases in these areas. However, since large areas of the country continue to use outmoded agricultural techniques, a sort of technological dualism has emerged in the country.

1.3.5 Fluctuations and instability in crop output: - The Indian agriculture has rightly been called a ‘gamble in monsoons’. The Gross cropped area in 1951-1952 was 133.2 million hectares whereas gross irrigated area was only 23.2 million hectares. Thus, only 17.4 per cent of gross cropped area had irrigation facilities. In 2007-08, the gross cropped area was 195.83 million hectares of which 87.26 million hectares was irrigated. Thus, 44.6 percent of gross cropped area had irrigation facilities in 2007-08. This shows that even now approximately 56 percent of gross cropped area continues to depend on rainfall. Therefore, nature continues to play a major role in determining the level of agricultural production. If anything, the use of biochemical technology in the post 1965 period has increased the sensitivity (except wheat) to variation in rainfall. However, according to C.H. Hanumantha Rao, the increase in instability is not due to new technology but arises from the adverse agro-climatic conditions in which the technology used.

Ref; Indian economy 2008 edition, Author Dr.Desai and Dr.Bhalerao, Nirali prakashan, page no.168to 244 and www.indiastudychannel.com
The new technology has raised the ‘response’ of output to water. As a result, for a given variability in rainfall or moisture conditions, the instability in output would be greater. According to Economic Survey, 2006—07, there was ‘deficient rainfall’ in 2002, 2004 and 2006 during the Tenth Plan period and this led to:

1] Poor agriculture growth,
2] Reduction in the share of agriculture in GDP,
3] Creating inflationary pressure in some primary products,
4] Reduction in the potential growth of other sectors by damping demand.

For example, the production of food grains which had touched the level of 212.9 million tones in 2001-02, fell to 174.8 million tones in 2002-03.

Again after rising to the record level of 213.2 million tones in 2003-04, it fell to 198.4 million tones in 2004-05. Food grains production rose to 234.4 million tones in 2008-09 but fell to 218.2 million tons in 2009-10. Third advance estimates for the year 2010-11 released on April 6, 2011 estimate the food grain production in this year at 235.9 million tones (the highest level recorded so far).

1.3.6 Diversities in the agricultural sector and the problem of generalization:
- India is a large country having substantial agricultural diversities. Different regions exhibit entirely different characteristics so that no one plan can be conceived for all agricultural regions of the country. The nature of soil, the magnitude of rainfall. While western Rajasthan and a part of the Thar Desert have a very uncertain rainfall of 4 to 5 inches a year, Cherrapunji in Assam has an annual rainfall of more than 450 inches. While considerable areas face drought conditions in a particular year, some areas encounter the fury of floods. Some areas face the problems of water logging and salinity. Practically the entire cultivated area of the country suffers from deficiency of nitrogen. Elements of

Ref: Indian economy 2008 edition, Author Dr. Desai and Dr. Bhalerao, Nirali prakashan, page no. 168 to 244 and www.indiastudychannel.com
phosphates and potash also differ significantly in different areas. It is not infrequent to find plots of land of highly different productivity existing side by side in a particular village. Not only this, relations of production are different in different states. There are substantial regional inequalities also in regard to sub-division and fragmentation of holdings. The presence of large diversities in the agricultural sector makes it necessary to diverse separate agricultural policies for different regions. It is not possible to generalize and formulate a single agricultural policy for the nation as a whole as such generalization is bound to gloss over interregional differences and fail to deliver the goods.

1.4 Scenario of India Agriculture

Agriculture in India is a major economic sector and it creates plenty of employment opportunities as well. India agriculture has an extensive background which goes back to 10 thousand years. At present, in terms of agricultural production, the country holds the second position all over the world. In 2007, agriculture and other associated industries such as lumbering and forestry represented around 16.6% of the Gross Domestic Product of the country. In addition, the sector recruited about 52% of the entire manpower.

Regardless of the fact that there has been a gradual slump in its contribution to the gross domestic product of the country, India agriculture is currently the biggest industry in India. On the whole, it has a key role in the socioeconomic growth of the country.

In terms of agricultural contribution, the following states in India are the most developed states: Punjab, Uttar Pradesh, Madhya Pradesh, Haryana, Bihar, Andhra Pradesh, Maharashtra, and West Bengal All these states play a key role in the agrarian development of India.

Ref: http://www.mapsofindia.com/indiaagriculture/
The total arable territory in India is 1,269,219 km², which represents about 56.78% of the overall land zone of the country. Arable land in India is diminishing because of continuous strain from an ever-increasing number of inhabitants and growing urbanization. The overall water surface area of the country is 31440 km² and the country experiences a mean yearly precipitation of 1,100 mm. Irrigation represents 92% of the consumption of water and in 1974, it was 380 km². By 2025, the capacity will probably increase to 1,050 km², with the equilibrium justifying both household and industrial usage.

1.4.1 Agricultural Products in India

India ranks first in producing the following agricultural outputs:

Anise, Fresh fruit, Badian, Fennel, Tropical fresh fruit, Coriander, Pigeon peas, Jute, Spices, Pulses, Castor oil seed, Millets, Safflower seeds, Sesame seeds, Limes, Lemons, Dry chillies and peppers, Cow's milk, Cashew nuts, Chickpeas, Ginger, Okra, Guavas, Turmeric, Goat milk, Mangoes, Meat, Buffalo milk. In addition, the country also ranks as the top producer of millets such as Bajra, Jowar, and Ragi. In terms of rice production, India holds the second position after China. About 10% of the fruits produced in the world are produced in India. India holds the first position in the world in producing the following fruits: Papaya, Mangoes, Sapota, and Banana. India holds the third rank in the Rapeseed world in the production of the following:

Sorghum, Tobacco, Coconuts, Rapeseed, Hen's eggs. By coffee production, India holds the sixth rank in the world. India houses the biggest number of livestock in the world and the count is 281 million. In 2008, the country housed the second biggest number of cattle in the world and the count was 175 million livestock.

Ref:-http://www.mapsofindia.com/indiaagriculture/
India ranks as the second biggest producer of the following:

Cabbages, Cashews, Fresh vegetables, Cotton seed and lint, Brinjal, Garlic Silk, Goat meat, Cardamom, Nutmeg and Mace, Wheat, Onions, Sugarcane, Rice, Dry beans, Lentil Tea, Groundnut, Cauliflowers, Green peas, Pumpkins, Potatoes, Gourds, Squashes, Inland fish.

The population of India is increasing at a faster pace than its capacity to produce wheat and rice. India holds the second position in production of wheat, rice, cotton, sugarcane, and groundnuts. It is also the second biggest harvester of vegetables and fruit, representing 8.6% and 10.9% of the overall vegetable and fruit production in the world correspondingly.

The country is the top producer of jute, milk, and pulses and holds the second rank in the production of silk and it is the biggest consumer of silk in the world. In 2005, the country produced 77,000 million tons of silk.

1.4.2 Initiatives taken by Government for Indian Agriculture.

In a huge country like India, the necessary extent of outlay for the expansion of merchandising, warehousing, and cold storage arrangement is expected to be massive.

The Government of India has been earnestly trying to put into operation different plans to increase investment or outlay in merchandizing and commercializing.

Some of the known plans and strategies of the Indian Government include the following:

- Market Research and Information Network.
- Construction of Rural Godowns.
- Grading and Standardization.
- Development/Strengthening of Agricultural Marketing Infrastructure.

Ref: http://www.mapsofindia.com/indiaagriculture/
The Indian Council of Agricultural Research (ICAR) is the principal authority in farming and ancillary industries, which comprise learning and research. The post of the President of the ICAR is held by the Union Minister of Agriculture and at present, Mr. Sharad Pawar is holding the position. The Indian Agricultural Research Institute (IARI) was set up in the year 1905. The institute had a key role in the studies and explorations that resulted in the Green Revolution in the decade of the 1970s. The Indian Agricultural Statistics Research Institute formulates new methods for the planning of agricultural testing. It also evaluates information associated with cultivation and offers expert advices in statistical methods for livestock and tree rising. Of late, the Government of India has established Farmers Commission to fully assess the cultivation plan. Nonetheless, the suggestions received varied responses.

1.4.3 Other interesting facts about Indian Agriculture.

India enjoys the second position all over the world in terms of agricultural production. During the period of 2009-10, farming and associated industries such as lumbering, forestry, and fishing represented approximately 15.7% of the Gross Domestic Product of the country. These industries also recruited 52.1% of the overall manpower of India. Outputs on a unitary basis for every type of harvest have increased from 1950. This has been possible since the government has put particular focus on farming operations in the five-year plans (Panchabarshiki Parikalpana) and stable developments in the domains of engineering science, irrigation, implementation of contemporary farming operations, and supply of cultivation loans and grants after the Green Revolution took place in the country. Nonetheless, worldwide evaluative studies disclose that the mean agricultural output in the country is typically 30%-50% of the maximum average output in the world. "Slow agricultural growth is a concern for policymakers as some two-thirds of India’s people depend on rural employment for a living.

Ref: http://www.mapsofindia.com/indiaagriculture/
Current agricultural practices are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible. Farmers' access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation."

—World Bank: "India Country Overview 2008"

"With a population of just over 1.2 billion, India is the world’s largest democracy. In the past decade, the country has witnessed accelerated economic growth, emerged as a global player with the world’s fourth largest economy in purchasing power parity terms, and made progress towards achieving most of the Millennium Development Goals. India’s integration into the global economy has been accompanied by impressive economic growth that has brought significant economic and social benefits to the country. Nevertheless, disparities in income and human development are on the rise. Preliminary estimates suggest that in 2009-10 the combined all India poverty rate was 32% compared to 37% in 2004-05. Going forward, it will be essential for India to build a productive, competitive, and diversified agricultural sector and facilitate rural, non-farm entrepreneurship and employment. Encouraging policies that promote competition in agricultural marketing will ensure that farmers receive better prices."

—World Bank: "India Country Overview 2011"

The analysis in 2003 about India’s agricultural growth from 1970 to 2001, by Food and Agriculture Organization of the United Nations, identified systemic problems in Indian agriculture. For food staples, the annual growth rate in production during the six-year segments 1970-76, 1976–82, 1982–88, 1988–1994, 1994-2000 were found to be respectively 2.5, 2.5, 3.0, 2.6, and 1.8 percent per annum.
Corresponding analyses for the index of total agricultural production show a similar pattern, with the growth rate for 1994-2000 attaining only 1.5 percent per annum. The low growth rates may constitute in part a response to inadequate returns to Indian farmers. India has very poor rural roads affecting timely supply of inputs and timely transfer of outputs from Indian farms, inadequate irrigation systems, crop failures in some parts of the country because of lack of water while in other parts because of regional floods, poor seed quality and inefficient farming practices in certain parts of India, lack of cold storage and harvest spoilage causing over 30% of farmer's produce going to waste, lack of organized retail and competing buyers thereby limiting Indian farmer's ability to sell the surplus and commercial crops. The Indian farmer receives just 10 to 23 percent of the price the Indian consumer pays for exactly the same produce, the difference going to losses, inefficiencies and middlemen traders. Farmers in developed economies of Europe and the United States, in contrast, receive 64 to 81 percent of the price the local consumer pays for exactly the same produce in their super markets. Even though, India has shown remarkable progress in recent years and has attained self-sufficiency in food staples, the productivity of Indian farms for the same crop is very low compared to farms in Brazil, the United States, France and other nations. Indian wheat farms, for example, produce about a third of wheat per hectare per year in contrast with wheat farms in France. Similarly, at 44 million hectares, India had the largest farm area under rice production in 2009; yet, the rice farm productivity in India was less than half the rice farm productivity in China. Other food staples productivity in India is similarly low, suggesting a major opportunity for growth and future agricultural prosperity potential in India. Indian total factor productivity growth remains below 2 percent per annum; in contrast, China has shown total factor productivity growths of about 6 percent per annum, even though China too has small holding farmers. If India could adopt technologies and improve its infrastructure, several studies suggest India could eradicate hunger and malnutrition within India, and be a major source of food for the world.

Ref:- http://www.mapsofindia.com/indiaagriculture/
Indian farms are not poor performing for every crop. For some, Indian farms post the best yields. For example, some of India's regions consistently post some of the highest yields for sugarcane, cassava and tea crops every year. Within India, average yields for various crops vary significantly between Indian states. Some Indian states produce two to three times more grains per acre of land than the grain produced in same acre of land in other Indian states.

Table 1.3

Key Indicators of Agricultural Progress

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Foodgrains (M. tonnes)</td>
<td>51</td>
<td>89</td>
<td>176</td>
<td>231</td>
<td>234</td>
<td>218</td>
<td>242</td>
<td>4.75</td>
</tr>
<tr>
<td>Rice (M. tonnes)</td>
<td>21</td>
<td>39</td>
<td>74</td>
<td>96</td>
<td>99</td>
<td>89</td>
<td>96</td>
<td>4.57</td>
</tr>
<tr>
<td>Wheat (M. tonnes)</td>
<td>06</td>
<td>12</td>
<td>55</td>
<td>78</td>
<td>81</td>
<td>81</td>
<td>86</td>
<td>14.3</td>
</tr>
<tr>
<td>2. Oilseeds (M. tonnes)</td>
<td>05</td>
<td>09</td>
<td>19</td>
<td>29</td>
<td>28</td>
<td>25</td>
<td>31</td>
<td>6.2</td>
</tr>
<tr>
<td>3. Sugarcane (M. tonnes)</td>
<td>57</td>
<td>122</td>
<td>241</td>
<td>341</td>
<td>274</td>
<td>278</td>
<td>339</td>
<td>5.95</td>
</tr>
<tr>
<td>4. Cotton (M. bale)</td>
<td>03</td>
<td>06</td>
<td>07</td>
<td>25</td>
<td>23</td>
<td>24</td>
<td>33</td>
<td>11.0</td>
</tr>
<tr>
<td>5. Jute and Mesta (M. bale)</td>
<td>03</td>
<td>04</td>
<td>08</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>3.67</td>
</tr>
<tr>
<td>6. Potato</td>
<td>03</td>
<td>04</td>
<td>15</td>
<td>n.a</td>
<td>29</td>
<td>n.a</td>
<td>37</td>
<td>12.3</td>
</tr>
</tbody>
</table>

(Source: Economic Survey, 2009-10)

Ref: Indian Economy, Datt and Sundaram 66th Edition 2012 Pg.531
Table 1.4  
Per Hectare Yield of Principal Crops Since 1950-51

<table>
<thead>
<tr>
<th></th>
<th>1950-51</th>
<th>1964-65</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Foodgrains</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice (Quintals)</td>
<td>7.1</td>
<td>10.8</td>
<td>22.4</td>
</tr>
<tr>
<td>Wheat (Quintals)</td>
<td>6.6</td>
<td>9.1</td>
<td>29.4</td>
</tr>
<tr>
<td>Coarse cereals(Quintals)</td>
<td>4.3</td>
<td>5.1</td>
<td>14.18</td>
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<tr>
<td>Pulses(Quintals)</td>
<td>4.0</td>
<td>5.2</td>
<td>6.9</td>
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<tr>
<td><strong>2. Non-Foodgrains</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oilseeds(Quintals)</td>
<td>5.2</td>
<td>5.6</td>
<td>11.6</td>
</tr>
<tr>
<td>Sugarcane(Quintals)</td>
<td>34</td>
<td>47</td>
<td>69</td>
</tr>
<tr>
<td>Cotton (K.g)</td>
<td>95</td>
<td>122</td>
<td>510</td>
</tr>
<tr>
<td>Potato(Quintals)</td>
<td>66</td>
<td>84</td>
<td>203</td>
</tr>
</tbody>
</table>


Ref: Indian Economy, Datt and Sundharam 66th Edition 2012 Pg.532
### Table 1.5

Actual Yield per hectare in quintals during 2006 in Comparison with world’s highest yield and yields of world’s largest producer

<table>
<thead>
<tr>
<th>Quintals/hectare</th>
<th>Potentials of high-yielding Indian varieties</th>
<th>Actual yield in India</th>
<th>Actual yield of the world’s largest producer</th>
<th>Country</th>
<th>World’s highest yield</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice (paddy)</td>
<td>40 to 58</td>
<td>31.9</td>
<td>65.8</td>
<td>China</td>
<td>100.0</td>
<td>Egypt</td>
</tr>
<tr>
<td>Wheat</td>
<td>60 to 68</td>
<td>29.1</td>
<td>47.4</td>
<td>China</td>
<td>79.3</td>
<td>UK</td>
</tr>
<tr>
<td>Maize</td>
<td>60 to 80</td>
<td>20.0</td>
<td>103.4</td>
<td>USA</td>
<td>103.4</td>
<td>USA</td>
</tr>
<tr>
<td><strong>Non-food crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugarcane</td>
<td>-</td>
<td>644</td>
<td>789</td>
<td>Brazil</td>
<td>1214</td>
<td>Egypt</td>
</tr>
<tr>
<td>Groundnut(pods)</td>
<td>20 to 30</td>
<td>10.1</td>
<td>33.6</td>
<td>China</td>
<td>33.6</td>
<td>China</td>
</tr>
</tbody>
</table>


Ref: Indian Economy, Datt and Sundaram 66th Edition 2012 Pg.532
Crop yields for some farms within India are within 90% of the best achieved yields by farms in developed countries such as the United States and in European Union. No single state of India is best in every crop. Indian states such as Tamil Nadu achieve highest yields in rice and sugarcane, Haryana enjoys the highest yields in wheat and coarse grains, Karnataka does well in cotton, Bihar does well in pulses, while other states do well in horticulture, aquaculture, flower and fruit plantations. These differences in agricultural productivity within India are based on local infrastructure, soil quality, micro-climate, local resources, farmers knowledge and innovations. However, one of the serious problems in India is the lack of rural road network, storage, logistic network and efficient retail to allow flow of farm produce from most productive but distant Indian farms to Indian consumer’s Indian retail system is highly inefficient. Movement of agricultural produce within India is heavily and overly regulated, with inter-state and even inter-district restrictions on marketing and movement of agricultural goods. The talented and efficient farms are currently unable to focus on the crops they can produce with high yields and at lowest costs. One study suggests Indian agricultural policy should best focus on improving rural infrastructure primarily in form of irrigation and flood control infrastructure, knowledge transfer in forms of better yielding and more disease resistant seeds with the goal of sustainable producing as many kilograms of food staples per hectare as already produced sustainable in other nations. Additionally, cold storage, hygienic food packaging and efficient modern retail to reduce waste can also dramatically improve India’s agricultural output availability and rural incomes.

1.4.4 The low productivity in India is a result of the following factors:

The average size of land holdings is very small (less than 2 hectares) and is subject to fragmentation due to land ceiling acts, and in some cases, family disputes. Such small holdings are often over-manned, resulting in disguised unemployment and low productivity of labour.

- Some of the reports claim smallholder farming may not be cause of poor productivity, since the productivity is higher in China and many developing economies even though China smallholder farmers constitute over 97 percent of its farming population. Chinese smallholder farmer is able to rent his land to larger farmers, China's organized retail and extensive Chinese highways are able to provide the incentive and infrastructure necessary to its farmers for sharp increases in farm productivity.

- Adoption of modern agricultural practices and use of technology is inadequate, hampered by ignorance of such practices, high costs and impracticality in the case of small land holdings.

According to the World Bank, Indian Branch: Priorities for Agriculture and Rural Development", India's large agricultural subsidies are hampering productivity-enhancing investment. Overregulation of agriculture has increased costs, price risks and uncertainty. Government intervenes in labor, land, and credit markets. India has inadequate infrastructure and services. World Bank also says that the allocation of water is inefficient, unsustainable and inequitable. The irrigation infrastructure is deteriorating. The overuse of water is currently being covered by over pumping aquifers, but as these are falling by foot of groundwater each year, this is a limited resource.

• Illiteracy, general socio-economic backwardness, slow progress in implementing land reforms and inadequate or inefficient finance and marketing services for farm produce.

• Inconsistent government policy. Agricultural subsidies and taxes often changed without notice for short term political ends. Irrigation facilities are inadequate, as revealed by the fact that only 52.6% of the land was irrigated in 2003–04, which result in farmers still being dependent on rainfall, specifically the Monsoon season. A good monsoon results in a robust growth for the economy as a whole, while a poor monsoon leads to a sluggish growth.[66] Farm credit is regulated by NABARD, which is the statutory apex agent for rural development in the subcontinent. At the same time over pumping made possible by subsidized electric power is leading to an alarming drop in aquifer levels.

A third of all food that is produced rots due to inefficient supply chains and the use of the "Wal-Mart model" to improve efficiency is blocked by laws against foreign investment in the retail sector.

1.5 Characteristics of Agricultural Product

In developing countries, industrial development largely depends on agriculture. Agriculture provides raw materials to such industries. Agriculture sector therefore, get importance for industrial development. Characteristic features of industrial goods are altogether different from those of agricultural goods. Following are some special characteristics of agriculture produce.

1.5.1 Perishability: Most of the farm produce is perishable it creates several problems of storage, transport and marketing. Farm produce requires to be sold immediately before it spoiled. Timely marketing and transport arrangements to send it at proper market place are essential.

1.5.2 Scattered Production: There are thousands of villages in India. Farmers live in rural area in scattered villages. Farm produce is produced by such large number of farmers living in scattered villages. Quantity of surplus farm produce for sale by individual farmer is very small.

1.5.3 Seasonal Production: The particular crops are grown in particular season due to specific requirement of climate, rainfall etc. needed for growing particular crops. Demand for farm produce is however spread over the entire year, there is no balance in demand and supply of farm produce.

1.5.4 Bulky Produce: Agricultural produce tend to be bulky and their weight and volume are great for their value in comparison with industrial goods.

1.5.5 Processing improves Utility: The farm produces like oilseeds, paddy etc. if processed, fetch better price and higher profit margins. Utility of such processed produce also increases.

1.5.6 **Inelastic Demand**: Agriculture produce are seasonal, perishable and bulky. It can not be stored for long periods. Its utility also limited therefore, less elasticity in its demand.

1.5.7 **Different qualities and quantities**: The quality and quantity of farm produce varies according to fertility of land, timely rainfall and favorable climate. Favorable factors will produce good quality with higher yield. Under adverse conditions quality of produce and yield is reduced.

1.5.8 **Difficulties in Gradation**: There are various kinds and varieties in farm produce and so it is difficult to grade them.

1.5.9 **Uncertain nature of production**: Agriculture is uncertain and risky like gambling. Production depends upon natural factors, like climate, rainfall etc. rather than skill and hard work of farmers. Adverse conditions like famine, floods etc. adversely affect agricultural production. There is uncertainty in production due to its dependence on natural factors.

1.5.10 **Difficulties in calculating cost of production**: It is difficult to find out cost of agricultural product due to uncertainty of production, costing of various inputs and illiteracy of farmers.

1.6 **Agriculture marketing- Concept and Definition**

The term agricultural marketing is composed of two words - agriculture and marketing. Agriculture, in the broadest sense means activities aimed at the use of natural resources for human welfare, and marketing connotes a series of activities involved in moving the goods from the point of production to the point of consumption. Specification, the subject of agricultural marketing includes marketing functions, agencies, channels, efficiency and cost, price spread and market integration, producer’s surplus etc. The agricultural marketing system is a link between the farm and the non-farm sectors.

In India Agriculture was practiced formerly on a subsistence basis; the villages were self sufficient, people exchanged their goods, and services within the village on a barter basis. With the development of means of transport and storage facilities, agriculture has become commercial in character; the farmer grows those crops that fetch a better price. Marketing of agricultural produce is considered as an integral part of agriculture, since an agriculturist is encouraged to make more investment and to increase production. Thus there is an increasing awareness that it is not enough to produce a crop or animal product; it must be marketed as well.

Agricultural marketing involves in its simplest form the buying and selling of agricultural produce. This definition of agricultural marketing may be accepted in olden days, when the village economy was more or less self-sufficient, when the marketing of agricultural produce presented no difficulty, as the farmer sold his produce directly to the consumer on a cash or barter basis. But, in modern times, marketing of agricultural produce is different from that of olden days. In modern marketing, agricultural produce has to undergo a series of transfers or exchanges from one hand to another before it finally reaches the consumer.

The National Commission on Agriculture defined “agricultural marketing as a process which starts with a decision to produce a saleable farm commodity and it involves all aspects of market structure of system, both functional and institutional, based on technical and economic considerations and includes pre and post- harvest operations, assembling, grading, storage, transportation and distribution”

The Indian council of Agricultural Research defined as a “involvement of three important functions, namely (a) assembling (concentration) (b) preparation for consumption (processing) and (c) distribution”.

1.7 Importance and Objectives of Agriculture Marketing

The farmer has realized the importance of adopting new techniques of production and is making efforts for more income and higher standards of living. As a consequence, the cropping pattern is no longer dictated by what he needs for his own personal consumption but what is responsive to the market in terms of prices received by him. While the trade is very organized the farmers are not conversant with the complexities of the marketing system which is becoming more and more complicated. The cultivator is handicapped by several disabilities as a seller. Farmer sells his produce at an unfavorable place, time and price.

The objectives of an efficient marketing system are:-

1. To enable the primary producers to get the best possible returns

2. To provide facilities for lifting all produce, the farmers are willing, to sell at an incentive price.

3. To reduce the price difference between the primary producer and ultimate consumer.

4. To make available all products of farm origin to consumers at reasonable price

   Without impairing on the quality of the produce.

1.8 Agricultural marketing In India

For a long period of time Indian agriculture was mostly in the nature of ‘subsistence farming’. The farmer sold only a small part of his produce to pay off rents, debts and meet his other requirements. Such sale was usually done immediately after harvesting of crops since there were no storing facilities. a considerable part of the total produce was sold by the farmers to the village
traders and moneylenders often at prices considerably lower than the market prices. The farmers who took their produce to the mandies also faced a number of problems as they were confronted with powerful and organized traders. In mandies, business was carried out by arhatiyas with the help of brokers, who were the agents of arhatiyas. In fact there was a large chain of middlemen in the agricultural marketing system like village traders, kutchaarhatiyas, puccaarhatiyas, brokers, wholesale, retailers, moneylenders etc. As a result, the share of farmers in the price agricultural produce was reduced substantially. For instance, a study by D.S. Sidhu revealed that farmers obtained only about 53 per cent of the price of rice, 31 per cent being the share of middlemen. In the case of vegetables and fruits, the share of farmers was even less – 39 per cent in the latter. The share of middlemen in the case of fruits was 46.5 % arhatiyas and broers, taking advantage of the ignorance and illiteracy of the farmers, used unfair means to cheat them. The farmers were required to pay arhat to the arhatiyas, tulaii for weighing the produce, palledari to unload the bullock carts and for doing and for doing other miscellaneous types of allied works, garda for impurities in the produce, and a number of other undefined and unspecified charges. these charges often varies from person. Another malpractice in the mandies related to the use of wrong weights and measure. In addition to the above defects in the agricultural marketing system in India – presence of a large number of middlemen and widespread prevalence of malpractices in the mandies there were a number of other problems as well. For instance, there was absence of proper the warehousing facilities in the villages. As a consequence, the farmer was compelled to store his products in pits, mud-vessels, kutcha storehouses, etc. These unscientific methods of storing led to considerable wastage. Some part of the produce used to get rotten and unfit for human consumption while some part was eaten away by pests and rodents. At times, as much as one third of farmer’s produce was lost in this way. Neither was there any provision for grading of agricultural produce.

The practice usually prevalent was the known as dara sales wherein heaps of all qualities of produce (good as well as bad) was sold in one common lot. Thus, there was no incentive to use better seeds and produce better varieties.

The transportation facilities were also highly inadequate and only small numbers of village were joined by railways and pucca roads to mandies. Most of the roads were kutchta roads not fit for motor vehicles the produce was carried on slow moving transport vehicles like bullock-carts. Obviously such means of transport cannot be used to carry produce to far-flung places and the farmer had to dump his produce in nearby market even if the price obtaining in this market considerably low. Most of the farmers had virtually contact with the mandies and in the absence of market information system, they had no knowledge regarding prices riling in different mandies. Therefore they had no option but to accept whatever price was offered to them. Since the ordinary Indian farmer was poor and lacked staying power, he tried to sell off the produce immediately after the harvesting of crops though prices at that time generally low(as there are excessive supplies in the market at that time ). Availability of credit could have enabled the farmers to postpone such ‘forced sales’ and wait for better prices. But as noted in the section on ‘Agricultural Credit’ there was a total lack of institutional sources of edit and the farmers were almost totally dependent on moneylenders whose sole objective was to exploitation the farmers. In fact, the moneylenders often forced the farmers to sell produce to them at prices lower than the market prices in return for the loans granted to them.

1.9 The Structure of Agricultural Markets

The structure of the agricultural markets is distinct from other types of commodity markets. Agricultural produce has to pass through a wide variety of markets and change hands several times before it reaches the final urban consumer.

This is so mainly because farmers and producers are scattered over a wide geographical area.

Thus, we need many levels of markets and assembling points for organizing, pricing and selling the produce to consumers. Although different types of agricultural products have different channels of distribution and different market structures, given below is a standard market structure, which may resemble the structure of different agricultural products.

1.9.1 Local Assembling and processing markets: Before agricultural products can be supplied to the final consumer, it will naturally have to be collected from the innumerable farmers who produce it. Most farm products pass through some small markets located close to the point of their production, where farmers sell them to local buyers. These are then collected and sent either to the district or central market. These local market are also known as grower’s markets or primary markets.

1.9.2 District Concentration and processing markets: Some commodities are processed either wholly or in part at local markets where consumers purchase them directly from farmers. But most of the commodities are processed at large central markets. Between these two types of processing markets, in the case of some products, we find district processors or markets where the produce from a considerable number of local markets are collected and processed for transporting to central markets or directly to consuming markets.

1.9.3 Central markets: We find that in between the fan-shaped producing and consuming ends of the market system, there are large central markets where goods from many local assembly markets or district processing points are concentrated for processing or for additional processing, storage, grading and distribution to other processing and secondary wholesale markets or to market abroad.

The central markets thus are the last step in the collection process and the first step in the dispersion process. The big wholesale markets can be compared to reservoirs into which the fluctuating and seasonal supplies from different producing area flow, and from which is met a constantly fluctuating demand. It is in these markets where regional, national or even international buyers and sellers meet. The forces working on the demand for agricultural products are seen more clearly in the wholesale market than in producing areas. The adjustment of demand and supply may be said to take place in central markets. As a matter of fact, central or terminal market is the meeting point of the three marketing processes- concentration, equalization and dispersion.

1.9.4 Wholesale distributing markets: The agricultural goods, which have now assembled in the central market, have to be dispatched to consumers through the retailers. Wholesalers operating in the central markets deal in bulk, which retailers cannot afford to, do. Therefore; there are separate wholesale market in between the large central markets and the retailer for the dispersion of goods to retailers. These markets are often called ‘Secondary wholesale market’ to distinguish them from primary to central wholesale markets. Another term sometimes applied to them is ‘jobbing markets’. These markets operate on a smaller scale than central markets. They do not play a major role in the determination of prices. They are concerned with only those operations that are essential to meet the needs of their retail clients.

1.9.5 Seaboard markets: The located near ports, these markets are meant for import/ export of goods. Seaboard market specifically serves the place for ocean shipment to foreign centers. These markets either receive the agricultural goods from central markets or directly from local or district assembling market.
Corresponding facilities for handling imports of agricultural goods are also available in such markets.

**1.9.6 Retail markets:** In retail markets, goods are ultimately placed before the individual consumer for acceptance or rejection. Every city, town and village in which retail stores sell to final consumers is a retail market. Retailing is perhaps the most difficult part of the marketing process to perform and is certainly the most expensive. For producers of consumer goods, the retail store is the ultimate point of contact with the users of their products. The battle for the markets is fought out in the retail store.

**1.10 Types of Agricultural Markets**

Markets mean open place or large building where actual buying and selling takes place. The market may extend to a locality, village town, region or a country according to the demand of a commodity. Market includes both place and region in which buyers and sellers are in free intercourse with one another. Marketing includes those business activities that direct the flow of goods and services from producer to consumer.

**1.10.1 Location**

**1.10.1.1 Village Markets:** The village markets are located in small villages. Major transaction takes place among buyers and sellers of a village.

**1.10.1.2 Primary wholesale markets:** They are located in big town near centers of production of agricultural commodities. A major part of the produce is brought for sale by the producer –farmer themselves. Transactions are between farmers and traders. These are owned by market commodities, local bodies or private individuals and are periodically held; every shopkeeper has to pay rent for the space he occupies.

1.10.1.3 **Secondary Wholesale markets:** They are located in district headquarters, important trade centers or near railway junctions. Major transactions take place between village traders and wholesalers. The bulk arrival in these markets is from other markets. The produce in these markets is handled in large quantities. These are specialised marketing agencies performing different functions, such as commission agents, brokers and weighmen.

1.10.1.4 **Terminal Markets:** The produce is finally sold directly to the consumer or the processors, or is collected for export. These markets possess sufficient warehousing and storage facilities covering a wide area extending over a state or two.

1.10.1.5 **Seaboard markets:** The Seaboard markets are located near the seashore, meant for exporting or importing goods.

1.10.2 **Area or Coverage**

1.10.2.1 **Local or Village Markets:** Buying and selling activities are confined to buyers and sellers from the same village or nearby villages, mostly perishable commodities in small lots, such as fresh milk and vegetables.

1.10.2.2 **Regional markets:** Buyers and sellers are drawn from a larger area. Deal in, for example, food grains.

1.10.2.3 **National market:** Buyers and sellers at a national level deal in durable commodities like jute and tea.

1.10.2.4 **World market:** Buyers and sellers are drawn from whole world, deal in goods such as coffee, gold, silver and cotton (futures trading).

1.10.3 Time Span

1.10.3.1 Short period market: Held over a few hours. Deal in products of a highly perishable nature, like fish, milk.

1.10.3.2 Long period market: Held over a long period. Products are less perishable, like food grains, oilseeds.

1.10.3.3 Secular markets: of a permanent nature. Dealing in manufactured goods, timber, etc.

1.10.4 Volume of Transactions

1.10.4.1 Wholesale markets: commodities are bought and sold in large quantities/ bulk. Transaction in between traders.

1.10.4.2 Retail markets: Commodities are bought and sold as per consumer requirement.

1.10.5 Nature of Transactions

1.10.5.1 Spot or cash market: A market in which goods are paid for immediately after sale.

1.10.5.2 Forward market: The commodities are bought at time but the actual exchange takes place at some specific date in future.

1.10.6 Number of Commodities

1.10.6.1 General market: The types of commodities such as food grains, oilseeds, fibre crops, etc are bought and sold.

1.10.6.2 Specialized market: The transactions take place only in one or two commodities, e.g. food grains market, cotton markets, and mango markets.

1.10.7 Degree of Competition

1.10.7.1 Perfect market: Large number of buyers and sellers

1.10.7.2 Imperfect market: Monopoly, duopoly, oligopoly, monopolistic competition. In the last, a large number of sellers deal in heterogeneous and differentiated forms of a commodity.

1.10.8 Number of commodities

1.10.8.1 Commodities markets deal in goods and raw materials such as wheat, barley, cotton, etc.

1.10.8.2 Capital markets deal in bonds, shares and securities.

1.10.8.3 Service markets deal in services such as consultancy.

1.10.9 Stage of Marketing

1.10.9.1 Producing Market: Markets that mainly collect commodities for future distribution to other markets. It is located in the producing areas.

1.10.9.2 Consuming markets: These collect the produce for final distribution to the consuming population located in areas where production is inadequate or in thickly populated urban areas.

1.10.10 Extent of Public Intervention

1.10.10.1 Regulated Markets

In India agricultural markets came under regulation mainly after independence, although some steps had been taken in that direction during British rule. Regulated markets came into being because the British rulers wanted to make available pure cotton at reasonable prices to British textile mills.

The Cotton and Grain markets Law was enacted in Berar in the last decade of the 19th century. The Bombay Cotton Market Act was enacted in 1927. This was the first law in the country that attempted to regulate the market with a view to bring sound market practices that would be fair to buyers and producers.

The First Five-year Plan stressed on the regulation of markets and emphasized the need for introducing market legislation by the states. So what are regulated markets? These are markets where prices, market procedures and operation are regulated by the government.

They ensure fair play and free competition in the purchase and sale of agricultural products by removing malpractices prevailing in marketing centers.

Thus, a regulated market can be defined as one that aims at eliminating unhealthy and unscrupulous practices, reducing marketing charges and providing facilities to producer-sellers in the market. Any legislative measure designed to regulate the marketing of agricultural produce in order to establish, improve and enforce standard marketing practices and charges may be termed as one that aims at establishing regulated markets.

**Objectives of Regulated Markets**

1. Assuring fair prices to help producers get the largest share in the final sale price of the produce.

2. Providing an ethical environment for proper trade practices by preventing malpractices in the market. Stabilising prices,

3. Arranging for a common marketplace for buyers and sellers to meet and to carry out marketing function.
Role of Regulated Markets in the Marketing of Agricultural Produce

The process of regulating markets in India, which had come to halt during the Second World War, gathered momentum after independence. Legislation for market regulation was enacted during the first plan period. By now most states have passed legislation to regulate agricultural markets.

The objective of such legislation is to eliminate unhealthy market practices, reduce marketing charges and ensure fair prices. The Government has taken the following steps to improve the functioning of this market.

1. **Price stabilization:** The regulated markets are instrumental in stabilising prices for agricultural products. These markets aim to provide a suitable environment for proper trade practices by preventing malpractices and ensuring a fair price for agricultural produce.

2. **Elected market committee:** An elected market committee is constituted to administer these markets. It consists of representatives from all interest, like farmers, producers, commission agents, wholesalers and some Government nominees like the Registrar of Co-operative Societies, the director of the state agricultural board and others. The committee is constituted in such a way that the farmer–producer members form a majority.

3. **Obtaining a license:** All the functionaries in the market (commission agents, wholesalers, auctioneers, weighmen, loaders and unloaders) have to obtain a licence from the market committee to operate.

4. **Arbitration committee:** The market committee fixes the charges to be collected for the services rendered by the functionaries in the market. An arbitration committee deals with any violation.
5. **Sales proceeds:** The Sales proceeds have to be paid to farmer-producers on the day of the sale itself.

6. **No secret deals:** The Sales have to be conducted transparently, generally by open auction. Secret deals are not allowed.

7. **Market Charges:** The Market charges incurred in effective sales have to be borne either by the seller or the buyers or shared between them. These vary from state to state. In some state market charges like commission, weighmen charges, loading/unloading charges etc. are borne by farmer-producers. In some states buyers pay the charges, and in others farmers and buyers pay an equal amount.

8. **Information:** The Licensed functionaries are required to submit complete details of all transactions taking place every day. It enables the committee to know the exact quantity of arrivals, sales, stocks and prices of different commodities, which are put up on notice boards every day. The information is further disseminated to village in the hinterland, which help farmers sell their produce at the best possible prices.

9. **Physical Facilities:** The facilities like rest house, canteen, drinking water, cattle sheet, etc. are provided in regulated markets for the benefit of farmer and cattle.

10. **Grading and standardization:** The facilities for grading and standardisation of the produce brought for sale by farmer-producers are provided.

11. **Packaging Sizes:** The sizes of packs for various commodities are stipulated by the market committee, e.g. 180 kg bales for cotton etc.
12. Establishment of godowns: The Central and state warehousing corporations are expected to establish godowns near the market for the benefit of farmer-producers. If prices are low or if produce cannot be sold on the day of arrival for any reason, they can store it in these godowns for a fee.

In short, regulation of markets has really helped farmers in cutting down marketing charges and also reduced their exploitation to an extent. Studies conducted on the impact of regulated markets have revealed that the number of farmers selling their produce in such markets has increased. Farmers are now able to realize better prices. Thus, regulated markets have provided tangible and intangible benefits to farmers.

Signification of regulated Markets to Agriculturists

1. Eradicating malpractices:- The regulated markets have been a boon to the agriculturist because they have introduced a system of competitive buying, helped in eradicating malpractices and rationalised market charges. Standardized weights and measures have protected cultivators from unauthorized deductions and unduly low quotations and have also helped to develop the machinery for securing impartial settlement of disputes between parties.

2. Rationalisation of market charges: - The Excessive charges like charity deductions, etc. are reduced and unwarranted ones are prohibited. The market changes have also been rationalised. The market fee is collected on a valorem basis from sellers. So, the cost of marketing is lower.

3. Fair Dealing: - Since the market practices are regulated, several malpractices that were formerly Prevalent in the market have been eliminated. No market functionary or any other person can make, allow, receive or recover any deduction in weight or payment, or any other allowance in respect of any other transaction
relating to notified agricultural produce. Thus market practices are collected to ensure fair dealing.

4. **Conditions of perfect competition:** A regulated market creates conditions of perfect competition among buyers. In a regulated market, agricultural produce is sold only through open methods such as tenders, public auctions, and open agreement by sampling, with reference to known standards or in such other manners as may be directed by the market committee. All these methods of sale increase competition among buyers, and sellers get a reasonable price.

5. **Market Intelligence:** One of the most important promotional services provided by regulated markets is market intelligence. In the absence of correct information, the producers-seller functions in an information vacuum, thereby laboring under a handicap. It is of paramount importance for the producer –seller to know the current prices prevailing in the market. This will help him formulate his marketing programme and take a decision about when and where to sell his produce.

6. **Improving rural communications:** The government utilizes the proceeds received by way of market charges, licence fees from market functionaries etc. for the construction of roads and bridges. This levy has become very important for improving rural communications and providing all-weather roads from producing areas to marketing centers and also link roads in rural areas.

7. **Settlement of dispute:** The system has been set up to settle disputes between sellers and traders.
Defects in regulated Markets

1. **Location and publicity:** The Most farmers are ignorant of the benefits of regulated markets. Regulated markets at present are confined to taluka headquarters and are not accessible to farmers living in far-flung villages. The presence of such markets is not publicized hence farmers are unable to locate them.

2. **Commission agents:** The commission agents have become indispensable to farmers to market their produce. They continue to flourish in regulated markets and charge hefty commissions.

3. **Payment of auction system:** The traders don’t pay farmers promptly, and as a result, the latter their find it difficult to meet their working capital needs. The auction system has a number of defects for which the farmer has to bear the loss.

4. **Vigilance and supervision:** The officials do not apply rules rigorously. As a result, farmers lose faith in the markets. The traders often violate the rules in market transaction. There are various loopholes in the constitution of market committees. Small and marginal farmers are denied an opportunity to serve on these committees. There is a lot of political interference in many committees, and proper representation is not given to all categories of farmers in them.

5. **Lack of incentives:** The incentives that are provided are not sufficient. The Higher market charges are levied on small and marginal farmers whose produce constitutes a major portion of the total. Due to illiteracy and ignorance, farmers are unaware of the subsidies, concessions and incentives provided to them by the government.

6. **Defective transactions:** The business of the regulated market is confined only a few fixed hours on working days. Consequently, farmers coming from far-flung places find it difficult to reach the market yard in time.
As most farmers are illiterate, they find it difficult to find out the exact dates, days and hours of transactions. Even the daily price reports are not dispatched to all the important villages in the jurisdiction.

**Measures to Remove the Defects of Regulated Markets**

1. **Publicity:** The officials should publicize regulated markets and their usefulness to farmers widely. They must also create a favorable image and positive outlook among the farmers. It is also necessary to open more regulated markets and sub-markets.

2. **Abolition of commission agents:** The agricultural market committees should get rid of commission agents who claim a major chunk of farmers’ income. It is also necessary to bring about a change in the by-laws of the agricultural marketing yards. It is essential to protect the interest of the farmers in order to safeguard their survival.

3. **Regular Payments:** In order to assure prompt payment in regulated markets, there should be a fund, raised through deposits of fixed amount, for quick payments to farmers in case the buyer fails to pay.

4. **Proper Supervision and Vigilance:** It is necessary for officials to take a keen interest in transaction. It will encourage farmers to bring their produce to market yards; and will also strengthen their faith and confidence in the functioning of market.

The agricultural market committees should take strict action against those who violate the market transaction rules. If necessary, amendments to the existing rules should be made to plug the loopholes in the constitution of market committees. As far as possible, political interference should be avoided and

election to agricultural market committees should be avoided and election to agricultural market committees should be conducted on democratic lines.

Nominations should be avoided. Due representation should be given to all categories of farmers in the committees. All these will include the farming community to bring their produce to the regulated markets.

5. Provision of incentives: The regulated markets should attract buyers who will bid higher prices from outside the state. The agricultural market committees should give concession to such traders. Public sector agencies such as the Seed Corporation of India, Cotton Corporation of India etc. should be invited to participate in market yard transactions. The agricultural marketing committee should provide gunny bags to farmers for convenient transport. They should also provide agricultural inputs like high-yielding varieties (HYV) of seeds and pesticides at subsidized rates to farmers who market their produce through regulated markets. The Lower market charges may be levied on small and marginal farmers whose produce constitutes a major portion of the total produce. It will encourage them to bring their produce to the regulated market.

6. Regulation in Transactions: The transactions in the markets should be regularized and the farmers should be intimated well in advance regarding the business to be transacted. To this end, the market should function throughout the harvesting season. The agricultural market committees should dispatch daily price reports to all important villages under their jurisdiction.

Thus, a regulated market is a wholesale market where buying and selling is regulated and controlled by the state government through the market committee. It aims at the elimination of unhealthy and unscrupulous practices, reducing marketing charges and providing facilities to producers and sellers in the market.
It also aims at implementing measures to remove defects such as the poor standards of primary and secondary markets, the prevalence of various malpractices such as short-weights, excessive market charges, unauthorized deductions, adulteration and the absence of a machinery to settle disputes between sellers and buyers.

1.10.10.2 Unregulated markets: The business is conducted without any set rules and regulation. Traders frame the rules for the conduct of business and run the market. The classification of markets for agriculture products was first done by the British in the 18th century. It is surprising that even today rural India follows the same hierarchy that was created by the British.

1.10.10.3 Marketing Co-operatives

The co-operative sales association is a voluntary business organization established by its member patrons to market farm products collectively for their direct benefit. Agricultural marketing involves ensuring goods and services reach consumers from the producers, i.e. from farmers to Consumers. It involves a number of activities, from assembling and grading to transportation and distribution. A farmer cannot carry out all these activities alone. But a group can come together and market their produce collectively.

Objectives of Marketing Co-operative

The Marketing co-operatives are formed with the main objective of improving the bargaining power of the farmers, so that they get a better price for their produce along with the following objectives:

1. To stop the exploitation of traders and middlemen.

2. To offer better returns to the farmers for their produce.

3. To provide agricultural inputs and other farm supplies, etc.

5. To provide warehousing and cold storage facilities to the farmers.

6. To carry out all such activities for the welfare and benefit of the members.

**Functions of Marketing Co-operative Societies**

1. To market the product of members of the society at fair prices.

2. To provide the facilities of grading and market information.

3. To arrange for the export of the produce of the members so that they get better returns.

4. To make arrangement for the transport and storage of the produce from the villages to the markets on a collective basis.

5. To arrange for the supply of the inputs required by the farmers, such as seeds, fertilizers, insecticides and pesticides.

The value of agricultural produce marketed through co-operative marketing societies increased from Rs. 53 crore in 1995-56 to Rs. 7,378 corer in the mid-nineties. The produce marketed through these societies account for 8-10 percent of the marketed surplus. Thus, marketing co-operative are a great step to help farmers market their produce and ensure they get just returns for their hard work. These co-operatives not only do away with middlemen, they also offer various support services leading to faster economic growth.

**1.11 Methods of Sale and Marketing Agencies**

Agricultural marketing includes all business activities involved in moving agricultural produce from producers to consumers. In order to achieve better marketing practices, efficient sales persons are necessary. Currently, there are a reported 21 methods of sales in existence.
Some of these methods are very popular for marketing agricultural produce. Following are some important methods.

- **Methods of Sale:**

1. **Under over of a cloth (Hatha System):** Under this method prices of the agricultural produce are settled by the buyer and the commission agent of the seller by pressing/twisting the fingers of each other’s hand under a piece of cloth. Codes are used to fix prices. The negotiations continue till a final price is settled.

2. **Private Negotiation:** Individual buyers come to the shops of commission agent at a time convenient to the latter and offer prices for the produce after inspecting the samples. If the price is accepted the commission agent conveys the decision to the seller and the produce is weighted and sold to the buyer.

3. **Quotations on sample, taken by commission agent:** The commission agent takes a sample of the produce to the buyers shop. A price is offered, based on sample, by the prospective buyer. A buyer may revise his initial offer upward if another buyer offers more. The produce is given to the highest bidder.

4. **Dara Sales method:** under this method the produce is mixed and then sold as one lot. The major disadvantage of this method is that produce of good quality and of poor quality fetches the same price.

5. **Moghum Sale method:** Under this method the produce is sold on the basis of a verbal understanding between the buyer and seller without any pre-settled price, but on the distinct understanding that the price of the produce to be paid will be the me prevailing in the market on that day or the one at which other sellers of the villages sold their produce.
6. **Open auction method:** - The prospective buyers gather at the shop of the commission agent around the heap of produce, examine it and shout out their bids. The produce is given to the highest bidder after taking the consent of the seller farmer. In a regulated markets sale of produce is permissible only through this method.

**Advantages of this method**

i) Brings buyers and sellers together at one place.

ii) Fair dealing to all the parties

iii) Disposes of the supply promptly

iv) Payment is made immediately after the sale if an auction has been completed.

**Disadvantage of this method**

i) Requires more time because both buyers and sellers have to wait for the day and time of auction.

ii) Buyer sometimes conspires to offer lower prices.

iii) Auction lead to a buyers market where buyers have full information about the supply of and demand for the product.

7. **Close tender System:** - The produce displayed at the shops of commission agents are allotted lot numbers. The prospective buyers visit the shops, inspect the produce, offer a price on a slip of paper, and deposit the slip in a sealed box for buying at the commission agent’s shop. When the auction time is over the slips
are arranged according to the produce number and highest bidder is informed by
the commission agent that his bid has been accepted and that he should take
delivery of the produce.

8. **Jalap Sale:** Under this method traders try to buy standing crops of farmers in
order to get a cheaper rate. As the farmer is also in need of immediate money, he
sells his produce at a very low rate.

9. **Future Sale:** The method of sale involves fixing a deal well in advance at a
bargained price with a speculative motive. The trader, with his market knowledge
and past experience, speculates on market conditions in the near future. On the
basis of these predictions, he takes certain risk and enters in to deals that he feels
may be profitable. This method of trading involves a lot of risk.

10. **State Trading:** when the government intervenes in trading activity and
carries out bulk purchase of farm product at fixed procurement prices. The
government undertakes such an activity to enable centralized and equal
distribution of the produce and assure appropriate returns to the farmers.

- **Marketing Agencies:** The marketing agencies act as middlemen
  between the producer/ farmer and buyer. Following are the some
  important agencies in the marketing of agricultural products.

  a) **Producers:** The farmers or producers perform various marketing functions
     before the produce is moved on in order to reach final consumer.

  b) **Middlemen:** The Middlemen are those individual or business concerns that
     specialize in performing the various functions and rendering such services as are
     involved in the marketing of goods. They do this at different stages in the
     marketing process. Middlemen are classified on the basis of their functions:-

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i) Merchant Middlemen: - wholesalers, Retailers, beoparis.

ii) Agent middlemen: - commission agent, arhatias, and brokers.

iii) Facilitate middlemen: - Those who not buy and sell directly but assist in the marketing process. Such as hamal/labours, graders, transport agencies, communication agencies

1.12 Inadequacies of Present Indian Marketing System.

Indian system of agricultural marketing suffers from a number of defects. As a consequence, the Indian farmer is deprived 'of a fair price for his produce. The main defects of the agricultural marketing system are discussed here.

1.12.1 Improper warehouses

There is the absence of proper ware housing facilities in the villages. Therefore, the farmer is compelled to store his products in pits, mud-vessels, "Kutcha" storehouses, etc. These unscientific methods of storing lead to considerable wastage. Approximately 1.5% of the produce gets rotten and becomes unfit for human consumption. Due to this reason supply in the village market increases substantially and the farmers are not able to get a fair price for their produce. The setting up of Central Warehousing Corporation and State Warehousing Corporation has improved the situation to some extent.

1.12.2 Lack of grading and standardization

The different varieties of agricultural produce are not graded properly. The practice usually prevalent is the one known as "dara" sales wherein heap of all qualities of produce are sold in one common lot. Thus the farmer producing better qualities is not assured of a better price. Hence there is no incentive to use better seeds and produce better varieties.

1.12.3 Inadequate transport facilities

The transport facilities are highly inadequate in India. Only a small number of villages are joined by railways and pucca roads to mandies. The produce has to be carried on slow moving transport vehicles like bullock carts. Obviously such means of transport cannot be used to carry produce to far-off places and the farmer has to dump his produce in nearby markets even if the price obtained in these markets is considerably low. It is even truer with perishable commodities.

1.12.4 Presence of a large number of middlemen

The chain of middlemen in the agricultural marketing is so large that the share of farmers is reduced substantially. For instance, a study of D.D. Sidhan revealed, that farmers obtain only about 53% of the price of rice, 31% being the share of middle men (the remaining 16% being the marketing cost). In the case of vegetables and fruits the share was even less, 39% in the former case and 34% in the latter. The share of middle- men in the case of vegetables was 29.5% and in the case of fruits was 46.5%. Some of the intermediaries in the agricultural marketing system are -village traders, Kutcha arhatiyas, pucca arhatiyas, brokers, wholesalers, retailers, money lenders, etc.

1.12.5 Malpractices in unregulated markets

The number of unregulated markets in the country is substantially large. The Arhatiyas and brokers, taking advantage of the ignorance, and illiteracy of the farmers, use unfair means to cheat them. The farmers are required to pay arhat (pledging charge) to the arhatiyas, "tulaii" (weight charge) for weighing the produce, "palledari" to unload the bullock-carts and for doing other miscellaneous types of allied works, "garda" for impurities in the produce, and a number of other undefined and unspecified charges.
Another malpractice in the mandies relates to the use of wrong weights and measures in the regulated markets. Wrong weights continue to be used in some unregulated markets with the object of cheating the farmers.

1.12.6 Inadequate market information

It is often not possible for the farmers to obtain information on exact market prices in different markets. So, they accept whatever price the traders offer to them. With a view to tackle this problem the government is using the radio and television media to broadcast market prices regularly.

The newspapers also keep the farmers posted with the latest changes in prices. However the price quotations are sometimes not reliable and sometimes have a great time-lag. The trader generally offers less than the price quoted by the government news media.

1.12.7 Inadequate credit facilities

An Indian farmer, being poor, tries to sell off the produce immediately after the crop is harvested though prices at that time are very low. The safeguard of the farmer from such "forced sales" is to provide him credit so that he can wait for better times and better prices. Since such credit facilities are not available, the farmers are forced to take loans from money lenders, while agreeing to pledge their produce to them at less than market prices. The co-operative marketing societies have generally catered to the needs of the large farmers and the small farmers are left at the mercy of the money lenders.

Thus it is not possible to view the present agricultural marketing in India in isolation of (and separated from) the land relations. The regulation of markets broadcasting of prices by All India Radio, improvements in transport system, etc., have undoubtedly benefited the capitalist farmers, and they are now in a better
position to obtain favorable prices for their "market produce" but the above mentioned changes have not benefited the small and marginal farmers to any great extent.

1.13 Governmental Measures to improve the systems of Agricultural Marketing:

After independence the government of India adopted a number of measures to improve the system of Agricultural Marketing in India. Some of the measures are as follows:

1. **Organization of Regulated Market:** - The regulated markets have been organized with a view to protect the farmers from the malpractices of sellers and Brokers. The management of such markets is done by a market committee which has nominees of the state Government, Local Bodies, Arhatiys, Brokers and Farmers.

2. **Grading And Standardization:** - The improvement in Agricultural Marketing system cannot be expected unless specific attempts at Grading and Standardization of Agricultural Produce are made. The Government has set-up a central Quality control laboratory at Nagpur and number of regional subsidiary Quality Control Laboratories.

3. **Use of Standard Weight:** - One of the defects of unregulated Market is that non-standard and arbitrary weights were used by Arhatiyas and Brokers to cheat the farmers. To stop this practice, the government undertook number of steps i.e. Standard Weight Act was passed in 1939, metric system of measures adopted in 1958.

4. **Godowns and Storage Facilities:** - It is necessary to provide a networks of godown facilities all over country so that the farmers are not compelled to sell their produce immediately after harvesting of crop.
This will enhance the bargaining power of farmers and save them from distress sale. Keeping such consideration in view Central Warehousing Corporation was set up in 1957 and this was followed by establishment of state Warehousing Corporation in a number of states. Food Corporation of India is also set up at the national Level.

5. Dissemination of Market Information: - The government has initiated a number of steps to inform the farmers about the prices prevailing in different markets, for example, prices in important markets are broadcast daily by All India Radio (AIR). Trends on market prices are reviewed weekly in special programs and talks organized by AIR and Doordarshan. Market intelligence reports are displayed in a number of markets all over the country.

6. Directorate of Marketing and Inspection: - The Directorate was set up by the Govt. of India to co-ordinate the Agricultural marketing activities of various agencies and to advice the central and State govt. on the problems of Agricultural marketing.

7. Government Purchases and Fixation of support Prices: - In addition to the measure above, the Govt also announces Minimum Support Prices (MSP) and procurement prices for various agricultural commodities from time to time in a bid to ensure fair returns to the Farmers.

1.14 A profile of the study area: Pune District’s Map

Ref: www.Google.com
1.14.1: Historical perspective:

Pune, the nature-gifted city, is popularly recognized as the Queen of the Deccan. Pune peculiarly esteemed, as the cultural capital of Maharashtra, is the most sanctimonious place and is situated just 192 kms. from the state-capital city Mumbai. It has a glorious history of over thousand years. The first sovereign Maratha king Shivaji-the great, was born in Pune District. He had spent his childhood in Pune along with his divine-mother Jijabai who had built the temple of the native-deity of Pune city- the Kasaba Ganapati Temple. The Peshwas-the Prime Minister of the Maratha Kingdom, governed the Pune city for over a period century (1973-1818). During the Peshwai (the Peshwa-reign); the historical monuments like Shaniwarwada, Parvati Temple, and Sarasbag Ganpati that are often visited by the tourists today, were constructed by the Peshwas. As a matter of fact, Pune city was emerged as one of the important centers of political activities in India due to the influential expansion of Maratha Empire in the North by the Shindes’ of Gwalior and Holkars’ of Indore. In the 19th Century, Pune city became the eye-flaring centre- attraction of the whole India due to the vital contributions of Lokmanya Bal Gangadhar Tilak, Gopal Krishna Gokhale and other eminent personalities from Pune in the rigorous freedom struggle of India against the British Rule. The young men graduated from Deccan College started educational institutions like New English School, Fergusson College etc. G.G. Agarkar and Jyotiba Phule propagated the social reforms. Maharshi Dhondo Keshav Karve devoted his whole life for the cause of education and the upliftment of women. A number of institutions in the fields like social, cultural, and political were started during this century. These institutions have become pride of Pune city. After the independence, Pune city has developed as an industrial city with the business families like Kirloskar, Garware, Bajaj, and Firodia, started spreading the network of group of companies. Modern Pune has been changing rapidly with

Ref: ShivparankalinandShivkalin Pune-Shahar Pune-Arun Tokekar,Nilubhau Limaye foundation, page no 48 to 53
Increased population, expanding its boundaries, and has been attracting all communities from almost all parts of India. Pune is infinitely famous for the century-old “Ten-day Ganesh-Festival” that was started by Lokmanya Tilak in 1893. The Punities are very fond of Marathi dramas and it is a crystal-clear fact that no visitor departs from the city without visiting the Balgandharva Rangamandir. It is a homely place for musicians, dramatists, scholars, literati and artists. Pune city is the widely chosen place for coveted comfortable stay with aromatic eating-places around the city, of different tastes and facilities for recreation.

1.14.2: Name of city:

The name Pune has its origin in the ancient copper plates dated 758 and 768 A.D. The Rashtrakutas ruled this region. In the copper plates of 758 A.D., it is named as Punya Vishaya whereas in the copper plate of 768 A.D. it is named as Punaka Vishaya. Vishaya literally stands for region, a geographical area. In the copper plate of 993 A.D., it was named as Punaka Desha. Later on, it was referred to as Punakavadi, Punavadi, and Kasabe Pune. There was a temple of Punyeshwara on the banks of Mutha River, which was visited by the Saint Namadev (1270-1350). Poona Gazetteer explains that this city is situated on the confluence of Mula and Mutha rivers. According to Hindu tradition, confluence or sangam of two rivers is punya (the auspicious amassing of good doings) hence; it is another would be derivation of the name Pune that is also referred to as Punyanagari, the location of punya.

1.14.3: Human civilization in Pune city:

Dr. Sankalia and his colleagues in the Deccan College have traced evidences that there was a human civilization in about one to one and a half lakh years ago. These scholars found the Stone-Age implements on the banks of Mutha River, also at the Bund Garden area and a few at the Dattawadi spot.
1.14.4: Historical city:

Pune is known as a ultra vibrating city and has an extensive history and numerous live traditions which have been reflecting in as various communities live harmoniously together for years together and more significantly, the people in this region have accomplished with some globally accepted great achievements, consequently the city is being called a historical city. Chhatrapati Shivaji, the Great Maratha-king had established his kingdom in this region. His father Shahaji and grandfather Maloji occupied this territory for over period a century. Shivaji enjoyed his childhood along with his mother Jijabai and mentor Dadoji Kondadev in the Lal Mahal-Jijabai’s Palace in Pune. Jijabai used to visit the temple of Ganapati-the native deity, in Kasaba Peth everyday. Devotedly she had constructed the temple of the deity in vicinity of Lal Mahal. The heroic Shivaji attacked Shahistekhan the Mogul-sardar in the famous finger-cut incident. Shivaji conquered Sinhagad Fort from Muslims. However, he had lost his fearless commander Tanaji Malusure in 1670. Thus Pune city has many inspirational and long historical backgrounds.

1.14.5: Pune is called the city of the Peshwas:

After the death of Shivaji, there was a big turmoil in the Deccan due to the cunning campaigns launched by Mugal Monarch Aurangjeb. However, from 1713 to 1818 the Peshwas, the Prime Ministers of the King of Marathas, the Chhatrapati Shahu Maharaj of Satara, as well as the Maratha Kingdom ruled Pune city. The first Peshwa Balaji Vishvanath lived at Saswad, a village near about 25 kms from Pune. As Saswad was an inconvenient place to rule, his successor the Second Peshwa Thorale Bajirao (1720-40) constructed a palace, which was built later on, and new buildings called Mahals were constructed during the regime of later Peshwas. Thorale i.e. Senior Bajirao expanded the Maratha Empire to the North.

Ref: ShivpurankalinandShivkalin Pune-Shahar Pune-Arun Tokekar, Nilabhau Limaye foundation, page no 48 to 53
The third Peshwa, Nanasaheb Peshwa (1740-1761) consolidated his position and constructed Parvati Temple during his time. In 1761, the Marathas were defeated at the battle of Panipat and had lost two war-leaders Vishwasrao and Sadashivrao along with thousands of sepoys. The fourth Peshwa Thorale Madhavrao (1761-1772) consolidated the Maratha Empire by defeating the Nizam and expanded the Maratha Kingdom. Narayanrao succeeded him. He was killed by the sepoys hired by Raghunathrao Peshwa on the instructions from Anandibai, wife of Raghunathrao Peshwa. Raghunathrao, uncle of Madhavrao Peshwa had an ambition of becoming Peshwa. However, he could not succeed in his plans. Raghunathrao was sentenced to death by the Chief Justice Rama Shastri Prabhune on charges of murder of Narayanrao Peshwa and hence he was dethroned. Savai Madhavrao Peshwa (1772-1795) had succeeded him, who constructed the famous Shaniwarwada building. He expanded the Parvati temple, also developed Sarasbaug Ganesh temple and constructed a fountain having as much as 1000 outlets in Shaniwarwada. He ended his life in 1795. The last Peshwa, Second Bajirao, son of Raghunathrao Peshwa joined hands with the British and finally surrendered to the British and thus we could understand the end of the Peshwas as well as of the Maratha Kingdom. During this century, the Marathas expanded their empire almost in all the directions that is in the north, in the southern end, and even in the east with the support of commander Mahadji Shinde of Gwalior, Holkar of Indore, and Bhosle’s of Nagpur. Hence, the city had been called as the city of the Peshwas. A number of places or manors constructed during this period by then Sardars still exist and are intact.
1.14.6: Tilak era in the history Pune:

The history and the social life of Pune was influenced by Lokmanya Bal Gangadhar Tilak (1856-1920) and his colleagues Prin. V. S. Apte, Gopal Ganesh Agarkar, M. B. Namjoshi and others. Eminent personalities like Mahatma Jyotiba Phule, Gopal Ganesh Agarkar, Mahadev Ranade, Gopal Krishna Gokhale, and Lokhitwadi also started various activities and launched social reforms. However, Lokmanya Tilak played a vital role in this period. He had started the popular newspapers Kesari (4 January 1881) and Mahratta (2 January 1981), established Fergusson College (1985), New English School (1980) and was imprisoned many times on charges of Rajadroha.

Lokmanya Tilak’s imprisonment at Mandalay from 1908 to 1914 caused great dissatisfaction all over India. Tilak was immensely recognized as the All-India leader. He struggled very hard for India’s freedom at the Indian National Congress and other platforms. Finally he filed a suit against British Officer. He had numerous followers and started Ganesh and Shivjayanti festivals to bring masses together. Hence the period from 1880 to 1920 is called as the Tilak era in the history of Pune city. A number of institutions were started in Pune after his death; prominent among them are Tilak Maharashtra Vidyapeeth, Tilak Smarak Mandir, Tilak Road, and Tilak College of Education.

1.14.7: Pune city after Tilak:

Mahatma Gandhi emerged as the all India leader after death of Tilak in the freedom struggle of India. Gandhi had his followers in Pune itself and they established a new front under the then local leaders like N.V. Gadgil, Keshavrao Jedhe, and Shankarrao More. Dr. N.B. Parulekar started the newspaper Sakal. Shri V. R. Kothari started another newspaper Prabhat and led the non-Brahmin movement. Many followers of Tilak joined the Hindu Mahasabha getting under...
the strong influence of Svanantryaveer Savarkar. However, after independence, we find that the new forces had come up in Pune. One of the forces was lead by S. M. Joshi and N. G. Gore, the socialist leaders and another force was lead by the today’s Bharatiya Janata Party under the leadership of Rambhau Mhalagi. Pune City took active part in Samyukta Maharashtra Movement had launched ‘Goa Liberation Movement’ under the leadership of Jayantrao Tilak and his fellow colleagues. The city has produced many great and influential political leaders. Jayantrao Tilak worked on the post of Speaker of the Maharashtra Legislative Council and earlier to this, he was the Rajyasabha Member too. Late N.G. Gore, Late Vitthalrao Gadgil, Anna Joshi, Late Vitthal Tupe, Pradeep Rawat, Suresh Kalmadi (four terms) were elected from Pune Parliamentary constituency on the Loksabha and Rajyasabha. Mohan Dharia was the Commerce Minister in the Central Government and later on was appointed as the Deputy Chairman, the Planning Commission during the Janata Party rule. Sharad Pawar, the founder of Nationalist Congress Party, at present, the Agricultural Minister, [Union Government of India], has worked on various top posts like Opposition Leader in the Loksabha and the Chief Minister of Maharashtra.

1.14.8: Pune the center of learning:

With the advent of the British Rule, the British Educational-system of the formal schools and colleges had been started. Pune Sanskrit College was started in Vishrambagwada. This, later on, was transformed into the existing Deccan College (1851). Tilak, Agarkar, Bhandarkar, G. K. Gokhale and other leaders of the nineteenth century Maharashtra were educated at the Deccan College.
Students of the Deccan College, after realizing the importance of national education, started New English School (1880), Fergusson College (1885), Nutan Marathi Vidyalaya (1883), High School for Indian Girls (1884), MES Society’s Bhave High School, Shivaji Maratha High School, and Sarasvati Mandir. Many such devoted and historical institutions laid down the solid foundation of today’s successful higher educational institutions. Poona College of Engineering was started in 1854, Course for Medical Education was started at Sassoon Hospital on converted into B.J. Medical College, and Law College was started in 1924. Poona Agriculture College was started in 1908 with British Principals-the leading agricultural educational institute of Pune. S.P. College, S.N.D.T. College for Women and Modern Education Society’s Nowrosjee Wadia College (1932) were started locating in different parts of city. These colleges have been catering to the needs of expanding Pune. Thousands of students from outside Pune get admission to these institutions and after the completion of their education get settled in their lives through the length and breadth of India. They owe their prosperity to the education in Pune.After independence; the University of Pune came on the city’s educational path and started functioning on 10th February 1949. Under the umbrella of this university, there was rapid progress of the higher education in Pune in particular. Similarly, we find the establishment of institutions of national importance like NCL, IUCAA, C-DAC, and IAT, which are recognized for the research work by the Poona University for award of Doctoral degrees. Apart from these institutions Tilak Maharashtra Vidyapeeth, Deccan College, Gokhale Institute of Politics and Economics, and the Modern Education Society are the most renowned institutions very popular among the foreign students. Pune has attracted students not only from Maharashtra but also from other states in India and especially from the Afro-Asian Countries.

Ref: Pune city its history, growth and development-Dr. S.J. Mahajan, Mahajan Prakashan 2004, Page no-34.
1.14.9: Changing Pune:

Pune, in narrow recent, is developed as the preferred INFO City. The IT Parks and the Auto Component’s Hubs are established in the parts of Pune. People of different religions and languages are attracted towards Pune for education and employment opportunities. South Indians have formed their neighborhood in Rasta Peth, Sindhis have settled in Pimpri, Christsains have centred in Camp Area, whereas, the Muslims in majority reside in Ganj and Nana Peth of the eastern Pune. Gujarathis, Marwadi, and Jains have majority in Bhavani, Shukrawar and Nana Peths. The Sikhs have founded their Gurudwara in Ganesh Peth, whereas Marathas and Brahmins are almost found everywhere. There is a tremendous increase in house-building sector in Pune. The quick erection of plazas, arcades, apartments, and the co-operative housing societies have been considered as the face-lifting improvement in conservative Pune. However, in fact, a large population still lives in slums and it is increasing drastically day by day. Women of Pune are educated and are comprehensively employed in the fields like the government departments, education field, computer field, call-centers, and shops. The traditional female-costume is changing remarkably to the suitable-modern attire, though Pune-ladies prefer customary sarees on festivals and religious occasions. Pune-women have resorted to family planning and can move safely on Pune roads with peace and security. Women of Pune are emerging as popular writers. They have performed well in professions like Music, Dance, Acting [in cinema or TV and drama], Journalism, Research, and even in Computer science. In disciplines like Architecture, Interior Design, Dentistry, and Medicine, their number is ever increasing. They drive two and four-wheelers sophisticatedly with confidence. Hotels and eating lovers are increasing and the taste of Pune people is changing. There is an increasing attitude for outside-eating. Hence dining halls are flourishing. Many prefer readymade things—may be chapattis or modak or puranpoli. Modern Pizza Huts, Mc-Donald’s, and the Mall-culture have attracted the youth and the mature in recent times.

Ref: Pune queen of the Deccan.-Jaymala Diddee and Smita Gupte Page no-90
1.14.10: Social and cultural progression:

Pune city has been known as the socio-cultural center of the country. Historically, number of social and political movements had started in the city. Moreover, most of the leaders like Mahatma Jyotiba Phule, Maharshi Dhondo Keshave Karve, Gopal Ganesh Agarkar, S. M. Joshi, N.G. Gore, and Lokmanya Tilak were associated to these movements and they had been the residents of the city. From the beginning, the city population has the majority of the upper caste people; those are the entrepreneurs, innovative persons, and visionaries. The attitude of these people is imitated by the others who have migrated in the city from the other parts or state of the country. The city is also known for the cultural contribution by the number of eminent personalities in various cultural movements specifically related to the classical music, drama or theater, film industries, music, dance and other fields of various arts. The city is also known for the beginning of educational institutions and presently being the leader of educational centers in the country, for instance Deccan Education Society, Modern Education Society, Shikshan Prasarak Mandali, Bharati deemed University, Symbiosis deemed University, D.Y. Patil deemed University, Sinhagad Institute, MIT, Deccan College and other institutions. Similarly, the contribution of the great personalities like Mahatma Phule, Maharshi Dhondo Keshav Karve, Lokmanya Tilak, Agarkar, and others in field of the education made the foundation of the present status of this educational center in the country.

The NCL, NDA, IMD, C-DAC, AUCAA, NIC, IITM, and other many nationally and internationally recognized institutions are situated in the city. Such institutions and other Government and Non-Government educational institutions have been creating the skilful human resource for various industrial sectors as per their needs. This may be one of the reasons for the present alluring industrialization of this historical city.

1.14.11: Geographical setting:

The geographical location of Pune city is 18.31° latitude and 73.51° longitude. Pune is a district place in the state of Maharashtra. Geographically it is located in the Western part of Maharashtra. The population of Pune city was 2540069 as per the census report of 2001. Geologically the study area is a part of the Deccan plateau. It is mainly made from Basalt Rock. Volcanic Eruptions created it during cretaceous period. Due to this geological setting, soil type is predominantly black color soil. Physiographically, Pune city is located near the Western Ghat. Western Ghat extended north-south direction in western part of Pune District. It consists of offshoots of Sahyadri, characterized by small mountains and hilly ranges stretching eastwards. These hilly ranges separated by the river valleys. Pune city has been spreaded over in these valleys along with plenty of hills. Therefore, it is also called city of hills. These hills are famous by local names like Taljai-Pathar, Parvati, Katraj, and Ambegaon Pathar etc. The top of most of the hills are covered by the dense forest and slopes are interestingly barren. The efforts of forest department and NGOs have maintained the forest cover of these hills. The location of Pune city is near to Mumbai Metropolitan city and the coastal area of Konkan. It has an easy access to these areas by roads or railways passing through various Ghats of Sahyadri Ranges. Two major rivers that are Mula and Mutha and their tributaries drain Pune city. Number of dams are constructed on both the rivers e.g. Khadakwasala, Panshet, Varasgaon, Temghar, Mulashi etc. These dams become the permanent source of water for drinking and industrial need of Pune city.

The climate of the study area is a part of monsoon type of climate. It is divided in the following seasons:

(1) Cold season—from November to February. December is generally the coldest month showing daily maximum at about 12ºc to 13ºc.

(2) Hot season— from March to mid of June. The hot weather is on peak at the middle of the month May. Maximum temperature observed in May is around 41ºc.

3) Monsoon season—from June to September. The main source of rain in the study area is from the southeast monsoon. Climatologically, this study area is located in rain shadow zone due to Western Ghat. Thus, rainfall decreases from the Ghat region towards Pune city. The average rainfall of Pune city is 65 cm... Towards the end of monsoon season in September and in October, there is a slight increase in day temperature. However, the night becomes progressively cooler. Overall the climate of Pune city is considered healthy. It is also one of the geographical reasons the city becomes the hub of educational, cultural and industrial center of the country.

1.14.12: Cropping pattern in Pune District

The cultivating soil and growing crops in it, is called agriculture. Man has been engaged in this occupation for a long, longtime. The farmer works very hard in his field to grow grains, fruits, flowers, vegetables, oil-seeds, etc for all of us. Agricultural production depends on factors such as soil, water; climate and the sun. The farmers have to depend upon the climate, there are two agricultural seasons.

**Kharif:** The rainy season is kharif season. The crops cultivated during the kharif season are called kharif crops. Rice, Jowar, bajra, Moong and cotton are the main kharif crops.

**Rabi:** The rabi season is in winter. The crops cultivated during this season are called rabi crops. Wheat, gram, safflower are the main rabi crops.

The farming carried out with the help of rainwater alone is called rained or jirayati farming. Some times; farming is carried out with the help of water supplied through irrigation. It is called irrigated or bagayati farming.

**Table 1.6**

**Area under major field crops and horticulture (2008-2009)**

<table>
<thead>
<tr>
<th>Major Field Crops cultivated</th>
<th>Area (‘000 ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kharif</td>
</tr>
<tr>
<td></td>
<td>Irrigated</td>
</tr>
<tr>
<td>Sorghum</td>
<td>-</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>85.6</td>
</tr>
<tr>
<td>Paddy</td>
<td>-</td>
</tr>
<tr>
<td>Wheat</td>
<td>-</td>
</tr>
<tr>
<td>Chick pea</td>
<td>-</td>
</tr>
<tr>
<td>Pear millent</td>
<td>-</td>
</tr>
<tr>
<td>Groundnut</td>
<td>-</td>
</tr>
<tr>
<td>Soyabean</td>
<td>-</td>
</tr>
<tr>
<td>Horticulture Crops, Fruits</td>
<td>Total area ('000 ha)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Pigeon pea</td>
<td>1.9</td>
</tr>
<tr>
<td>Mango</td>
<td>19.5</td>
</tr>
<tr>
<td>Sapota</td>
<td>13.4</td>
</tr>
<tr>
<td>Custard apple</td>
<td>13.2</td>
</tr>
<tr>
<td>Horticulture Crops, Vegetable</td>
<td>Total area ('000 ha)</td>
</tr>
<tr>
<td>Onion</td>
<td>19.0</td>
</tr>
<tr>
<td>Potato</td>
<td>9.5</td>
</tr>
<tr>
<td>Tomato</td>
<td>6.2</td>
</tr>
<tr>
<td>Brinjal</td>
<td>3.5</td>
</tr>
<tr>
<td>Okra</td>
<td>2.1</td>
</tr>
<tr>
<td>Chilli</td>
<td>2.3</td>
</tr>
<tr>
<td>Cole crops</td>
<td>5.0</td>
</tr>
<tr>
<td>Horticulture Crops, Flowers</td>
<td>Total area ('000 ha)</td>
</tr>
</tbody>
</table>
| Ref:- Pune Contingency crop planning

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SUMMARY:
This chapter aims at studying India’s Agriculture and Agricultural marketing. It begins with the background of agriculture and studies the role, nature and scenario of it along with agricultural products. It has also been stated its importance and objectives of efficient marketing system. As it is supposed to be the Agricultural marketing is a matter of great importance to farmers, consumers, middlemen and society. It provides the channel of communication between farmers and the society. It also gives continuous information about the demands and supply of the agricultural produce.

Agricultural marketing in India is discussed with the definitions, objectives, structure of agriculture market and types of markets. This chapter focuses on inadequacies of present Indian marketing system and the various governmental measures to improve system of Agriculture marketing.

This chapter concludes the profile of the study area.
BIBLIOGRAPHY

1. International journal physical and social sciences, volume2, issue5, ISSN: 2249-5894, Dr.Vandana Tyagi


4. www.scribd.com/doc 25775354 -Role of agricultural in Indian Economy

5. Indian Economy 2008 edition, Author Dr.Desai and Dr.Bhalerao,Nirali prakashan, page no.168to 244

6. www.indiastudychannel.com


10. Shivpurankalin and Shivkalin Pune-Shahar Pune-Arun Tokekar,Nilubhau Limaye foundation,page no48 to 53

11. Pune city its history,growth andDevelopment-Dr.S.J.Mahajan,Mahajan
Prakashan 2004, Page no-34.


14. Pune Contingency crop planning