CHAPTER III
MARKETING PRACTICES OF VEGETABLES IN INDIA

3.1 Introduction

Horticulture, comprising largely vegetables and fruits, is emerging as an indispensable and growing part of Agriculture, offering a wide range of choices to the farmers for crop diversification\(^80\). It also provides ample opportunities for sustaining large number of agro-industries which generate substantial employment opportunities. With agriculture and allied sectors finding alternative ways of increasing productivity of crops, Horticulture as a sub-sector is a revelation – showing remarkable signs of progress in India and benefiting from an impressive base. India with its variability of climate and soil, produces a large range of horticultural crops such as fruits, vegetables, potato, tropical tuber crops, ornamental crops, medicinal and aromatic plants, spices and plantation crops like coconut, cashew nut, cocoa, etc. providing ample scope for empowering the people by generating employment opportunities, improving economic conditions, providing nutritional security and plays a vital role in the transformation of agrarian economy\(^81\).

In view of the increased public investment in Horticulture sector, much needed emphasis is given to Horticulture development; primarily targeted at increasing the production and productivity of horticulture crops, development of infrastructure for post harvest management and providing access to domestic and export markets. Most significant development in the last decade is that horticulture has moved from rural confine to commercial production; encouraging private sector investment in production system management. This trend has led to the adoption of

\(^{80}\) Crop diversification is viewed as a shift in production portfolio away from staple cereals towards high-value crops such as fruits, vegetables, flowers, spices, tubers, etc. Evidence from the field surveys in some selected districts of Andhra Pradesh indicate higher returns for non-traditional or high-value crops such as flowers and vegetables, compared to traditional commercial crops such as cotton and oilseeds. The water use efficiency in high-value crops such as flowers, vegetables and chickpea, is high compared to paddy and sugarcane. The employment potential of HVCs is also higher compared to traditional crops. For details see,

improved technology, greater commercialization and professionalism in the management of production and marketing. This transition from traditional Horticulture to trade oriented outlook has brought a perceptible change in the concept of Horticulture development in the state. A large number of concessions, assistance and incentives are given to the growers, processors and exporters by the State and Central Governments.

3.2 Importance of Horticulture

Horticulture sector has had a significant impact on the growth of the country’s economy and is expected that in future also it can make significant contribution towards accelerating the agricultural growth. The share of horticultural crops in total cropped area has increased from 4 per cent in 1980-81 to about 8 per cent in 1998-99 and further to 13 per cent in 2005-06. The contribution of horticultural crops in agricultural gross domestic product was around 28 per cent in 2005-06 and its share in agricultural export was 37 per cent in 2006-07\(^2\). The comparison of the growth in gross value of output of various sub-sectors of agriculture shows that horticulture sector registered a growth of 4.11 per cent and 2.97 per cent during the 9th and 10th plan periods respectively, while the corresponding figures of growth for cereals worked out to 1.49 per cent and 1.28 per cent respectively\(^3\).

The potentiality of horticulture in improving the productivity and production of land, raising farm income, generating employment, improving economic conditions of farmers and entrepreneurs, enhancing export and above all, providing nutritional security to the people is well recognized and widely acknowledged\(^4\). Horticulture crops not only

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\(^3\) World Bank, From Competition at Home to Competing Abroad: A Case Study of India’s Horticulture, Oxford University Press, New Delhi, 2007.

provide nutritional and healthy foods, but also generate cash income to farmers. Quality management of horticultural produce is of utmost importance to get better returns\textsuperscript{85}. Appropriate production practices, careful harvesting and proper packaging, storage and transport, all contribute to the good quality produce\textsuperscript{86}. Economic reforms are initiated in India with a view to bring in structural changes in agriculture particularly in favour of horticultural crops, which has greater potential to increase farm income as well as the nutritional status of the citizens of the nation\textsuperscript{87}. As part of this, the National Horticulture Mission was launched in May, 2005 as a major initiative to bring about diversification in agriculture and augment income of farmers through cultivation of high yielding crops (HYCs). The mission seeks to double the horticultural production by 2011. The infrastructure and other facilities available in the markets at present are far from satisfactory\textsuperscript{88}. Keeping in view the

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\textsuperscript{86} Horticultural crops are inherently liable to deterioration especially under tropical conditions because of high moisture content. Moreover, they are biologically active and carry out transpiration, respiration, ripening and other biochemical activities, which deteriorate the quality of the produce. Losses during post harvest operations due to improper storage and handling are enormous and can range from 10 to 40 per cent. Post harvest losses can occur in the field, in packing, in storage, during transportation and in the wholesale and retail market. Heavy loses occur due to poor facilities, lack of know-how, poor management or simply the carelessness of farmers. Estimates of the post-harvest losses of food grains in the development world from mishandling spoilage and pest infestation are put at 25 per cent; this means that one-quarter of what is produced never reaches the consumer for whom it was grown, and the effort and money required to produce it are lost-forever. For details see, FAO, (2004), http://www.fao.org/.


\textsuperscript{88} There are, however, a number of factors that influence the spread of HVCs. These include availability of credit, post-harvest infrastructure and marketing, cold chains, quality-testing laboratories. Unless these facilities are streamlined to support the needs of stakeholders on the supply chain, diversification towards HVCs would remain restricted. For instance, the processing industry is plagued by a number of bottlenecks on the supply side – non-availability of raw materials, poor quality, small size of the units
specific needs of the perishable commodities, there is need for developing specialized markets for fruit and vegetables, flowers, medicinal and aromatic plants, spices, etc.

3.3 Significance of Vegetables in the National Economy

India is the second largest producer of vegetables in the world next only to China. It accounts for 16 per cent of world production with an annual production of 95 million tonnes from around 6.2 million hectares which is about 3 per cent of the total area under cultivation in the country during the year 2005. India is also the second largest producer of fruits accounting for about 10 per cent of the total world production next to China. The agro-climatic conditions in different parts of India provide ample opportunities for the regional specialization of the horticultural crops.

Vegetables are one of the most important components of Indian agriculture, particularly, horticulture. The growing importance of vegetables in emerging Indian agricultural economy can be well appreciated in terms of surging domestic demand, high export potential, labour intensive nature, and increasing thrust on commercialization of farm sector. The potentiality of vegetables in contributing to the national economy has been well recognized in recent years. Vegetable production plays a major role in

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domestic food production. It plays an important role in our daily life for enhancing the income as well as nutritional status\(^93\) of masses. Studies reveal that per hectare income from vegetables are about four times higher than that of food grains\(^94\). Vegetables are considered to be increasingly important in supplementing the food and nutritional needs of the people. With the changing life style and food habits, the importance of vegetables in human diet is being increasingly realised. They provide a myriad range of essential nutrients, particularly to the vegetarian population of the country\(^95\). Vegetables being valuable sources of carbohydrates, proteins, vitamins and minerals play an important role in balanced nutrition, especially for the majority of Indian population who are vegetarian and abstain from animal proteins. Vegetable crops not only provide nutritional security but are also capable of producing more biomass (about 5 times the quantities of food per unit area) when compared to cereal crops\(^96\). Though there has been a considerable increase in the production of vegetables in our country since independence, the much-needed nutritional status of the population has not improved much as the per capita availability of vegetables is still about 175g/day, which is far less than the recommended levels of 300g/day. Availability of vegetables can be increased by increasing the production, importing it from other countries and by reducing the enormous post harvest losses\(^97\). Thus, vegetables can significantly contribute towards solving the food problem.

\(^{93}\) Vegetables can provide four times more calories of energy and cash income than cereals per hectare of land. However, the marketing facilities for vegetables are not developed to that extent as for food grains. In the case of food grains, price support and procurement programmes ensure stable returns to the farmers.


of the country. In ancient times, people used to consume tubers and vegetables primarily due to their easy availability, tempting succulence and pleasant flavours. Therefore, considerable emphasis should be placed on this sector. Thus, the production of vegetables has been successful in keeping pace with the rising demand for growing population. Due to its high demand in the market and good returns, considerable interest of farmers has been aroused to its cultivation. Of late, vegetables are being viewed as ‘sunrise’ enterprise in the agricultural sector.

The area under production of vegetables in the country has increased from 5.59 million ha in 1991-92 to 7.98 million ha by 2009-10. Similarly, the production of vegetables has increased from 58.53 million tonnes to 133.74 million tonnes in the corresponding period. The details of area and production of vegetable crops during 1991-92 and 2001-02 to 2009-10 are given in Appendix 3.1, Table 3.1. These are also depicted in a diagrammatic form and shown in Figure 3.1. The share of area and production of major vegetables for the year 2009-10 are given in Figure 3.2. The vegetable-wise details of area, production and productivity during 2007-08 to 2009-10 along with growth trends are furnished in Appendix 3.1, Table 3.2. These tables indicate that the growth in area and production are not much during the period under reference given the potential area and favourable climatic conditions. The calculation of growth trends during 2007-08 to 2009-10 indicates slow and decreasing tendency in growth.

The major vegetables grown in India are potato, onion, tomato, cauliflower, cabbage, bhindi, and brinjal. Potato and onion are commercial crops and are being exported to different foreign countries of the world. They occupy first and second positions among the total vegetables produced in the country in terms of area and production since 1991-92 and this trend is continuing even now Appendix 3.1, Tables 3.2 and 3.3. India is also an important cabbage and cauliflower producing country. India

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ranks first and second in the production of cauliflower and cabbage, respectively in the world. It produces about 4.2 million tonnes of Cabbage and 5 million tonnes of cauliflower annually, which is about 9 per cent and 37 per cent of the world’s total production of cabbage and cauliflower, respectively\(^1\) (FAO, 2002). Cabbage and

**Area and Production Growth Trends for Vegetables Crops**

![Bar chart showing Area and Production Growth Trends for Vegetables Crops](chart.png)

**Fig. 3.1**

**Production Share of Major Vegetables Crops in India (2009-10)**

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cauliflower jointly contribute about 11 per cent of India’s total vegetable production. Individually, cabbage accounts for about 5 per cent while cauliflower accounts for 6 per cent of total vegetable production of the country. Cabbage and cauliflower are very rich source of vitamin A and C. They also contain minerals like phosphorous, potassium, calcium, sodium and iron. At present, India ranks first in the world production of cauliflowers and pea, and second in world production of brinjal and onion.

In the state of Andhra Pradesh, the agricultural production system is multi-cropped with diversified systems of both agricultural and horticultural crops separately and together. The state has 331 thousand hectare area under vegetables with a production of around 5.4 million tones in 2009-10. The percentage share of vegetables in Andhra Pradesh during 2001 is shown in Figure 3.3. The vegetable production in the state over the period has not been encouraging compared to other states as both area and production

have not increased much during the period 2006-07 to 2009-10. However, the productivity of vegetables in the state was 16.4 tonne/ha, which is slightly low as compared to the national average productivity of 16.7 tonne/ha during the same year\textsuperscript{103}.

In Andhra Pradesh, a significant gap was observed between actual production and potential production of different vegetable crops in 2006-07 and in subsequent years. It shows that there is vast scope to improve the production of these crops at different levels. This critical gap can be minimized by strong extension services, training and demonstration. Improvement in productivity can be achieved through replacement of traditional varieties by hybrids and adoption of improved production/protection technologies\textsuperscript{104}. To enhance the vegetable production in the state, the target should be to achieve 25t/ha productivity by 2020, which is presently around 16.4t/ha.

**Percentage Share of Vegetables in Andhra Pradesh during 2001**

![Percentage Share of Vegetables in Andhra Pradesh during 2001](image)


The cultivation of vegetables is most suitable in a country like India and also in states like Andhra Pradesh with preponderance of small land holdings, varied climatic conditions and surplus family labour. Increase in the vegetable production has increased the marketable surplus which is quite high as compared to other agricultural commodities like cereals and pulses. At the same time, the perishability and seasonality of vegetable crops is very high as compared to other crops. Due to these factors the produce has no control over price which leads to price uncertainty. Therefore, the instability in prices of agricultural commodities has been one of the major factors affecting the income levels of farmers as well as tempo of agricultural production. This instability in prices of agricultural commodities is influenced by a number of factors such as annual variation in production, low price elasticity of demand and seasonality of agricultural production.

3.4 Marketing of Fruits and Vegetables

Vegetables are more prone to marketing problems compared to other agricultural commodities because of their basic characteristics of perishability, bulkiness and existence of large number of middlemen. The production system of vegetables has been observed to be quite a weak link in the programme for increasing vegetable availability and improving farmers’ share in the consumer’s rupee. The arrivals and prices of vegetables are also unpredictable. There are low prices when arrivals are in large quantity and high prices in the lean seasons. Since vegetable crops require a chain of marketing functions before reaching the ultimate consumers, the role of various marketing agencies assumes great importance. Most of the vegetable growers sell their produce through

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commission agents, whereas quantity of direct sale to retailers is almost negligible\(^{108}\). The existence of the large number of middlemen accentuates the problem all the more\(^{109}\). The middlemen manipulate the situation by offering low prices to the growers under the pretext of low demand and falsely rejecting the produce as sub-standard. Sometimes, the vegetables also get accumulated in particular areas due to climatic conditions resulting in surfeit. The growers then make distress sale and get substantially low prices in addition to wastage of a large quantity of produce. On the other hand, this causes acute shortage in the consuming areas and forces the consumers of such areas to pay higher prices. The prices of vegetables are generally much higher in the consuming markets as compared to the producing markets. As such the interests of both producers as well as consumers are poorly served with the existing system of vegetable marketing. These problems accentuate in dimension with the growth of cities as these widen gaps in demand and supply of the essential items with the increasing mass of consumers. Therefore, there is a need to bring improvement in the marketing efficiency\(^{110}\) of vegetable marketing in India. The efforts made by the government to improve the marketing system could improve the efficiency and help in increasing the producer’s share in the consumer’s rupee in the case of food grains, oilseeds and fibre crops to a great extent but very little has been done for improving the marketing efficiency in the case of vegetables. The efficient marketing of vegetable crops is likely to help the agricultural development of the region/state through multiplier effect. Therefore, a sound system of marketing is required to mobilize the surplus of vegetable crops, which aims at reducing the post-harvest losses significantly.

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\(^{110}\) The imperfections in the vegetable market result in low marketing efficiency. Seasonal variations in market arrivals cause wide fluctuations in the prices of vegetables. Further, there is a general feeling among the vegetable growers that the profit of the middlemen in marketing of vegetables is out of proportion to their investment and business risk as compared to those of the growers. The margin of middlemen in private trade channels is so high that producers seldom obtain 40 per cent of the price paid by the consumers. For details see, Bhupal, D.S., Price Spread in the Marketing of Vegetables in Delhi, *Agricultural Situation in India*, Vol. 44, No. 6, September 1986, pp. 725-726.
Marketing of vegetables has assumed new dimensions with rise in per capita income and health consciousness, mostly in urban areas of India. Increase in production of vegetables has increased the marketable surplus which is quite high as compared to the other agricultural commodities like cereals and pulses. Moreover, the perishability and seasonality of vegetables crops is very high compared to other agricultural commodities. Due to these two important features, the producers have no control on prices which ultimately causes the price uncertainty\textsuperscript{111}. Besides the high degree of perishability, the variety and quality, and various market imperfections, market infrastructure etc. also influence the marketing costs and price levels. Moreover, the marketing arrangements at different stages also play an important role in price levels at various stages viz. from farm gate to the ultimate user.

The development of farm sector depends not only on advancement in farm technology but improvement in market infrastructure is also essential to ensure better returns to farmers. The retail management for agricultural commodities is increasing in recent years at an exponential growth rate in India. The supply of vegetables by farmers to modern retail outlets bring in new form of organizing production based on consumers oriented market driven production. All the activities are being organized and managed by a team of personnel recruited for management. Since vegetable crops require a chain of marketing functions before reaching the ultimate consumers, the role of various marketing agencies assumes great importance. The efficient marketing of vegetable crops is likely to help the agricultural development of the region through multiplier effect\textsuperscript{112}.

\textbf{3.5 Channels of Fruit and Vegetable Marketing}

There are a number of channels in marketing especially of vegetables. The marketing channels for vegetables vary from commodity to commodity and from producers to producers. In rural areas and small towns, many producers also perform the


function of retail sellers. Large producers directly sell to processors or transport to distant markets. The common marketing channels for vegetables\textsuperscript{113} are

1. Farmer - consumer
2. Farmer - primary wholesaler - retailer/hawkers - consumers
3. Farmer – processor - retailer of processed products - consumers
4. Farmer - primary wholesaler - processor
5. Farmer - primary wholesaler - secondary wholesaler - retailer/hawker - consumer
6. Farmer - pre-harvest contractor - primary wholesaler - consumer

There are often six to seven and sometimes even eight intermediaries before the produce reaches the consumers. Each intermediary adds to the margin. According to the available information, the producer gets about 25 – 30 percent of the consumers’ price in case of wheat, maize and rice. However, producers of milk and milk products through the Anand model get about 60 percent of the final price. In case of vegetables, the markup reaches about 60 percent of the cost. Producers’ share was found to be relatively high in areas where better infrastructure facilities for marketing were made available. Substantial variation in the producers’ share in the consumers’ rupee of vegetables was also observed even in the same location itself. Vegetables are sold mostly through commission agents and very little pre-harvest contracting is done. Hence, the net returns are generally low. The producer of vegetables cannot go to the wholesale market or distant markets and hence have to depend on some intermediaries to sell them. Attempts are being made for building up linkages between the farm and the markets. Some of these attempts in certain pockets including contract farming arrangements are there for tomato crop in Punjab (Hindustan Lever Ltd. and Pepsi), for wheat in Madhya Pradesh (Rallis and Hindustan Level Ltd.) and for basmati rice in Punjab\textsuperscript{114}.

In spite of the fact that the agriculture produce market sector has a very large number of players, due to infrastructural bottlenecks, geographically dispersed market places, absence of well organised market, there are localised monopolistic tendencies and manipulations which adversely affect the growers. To protect the interests of the

\textsuperscript{113} MSSRF, An Exploratory Study on Large-scale Feeding Programmes and the Possibility of Linkage with Small and Marginal Farmers, MSSRF/RR/10/26, M. S. Swaminathan Research Foundation Taramani, Chennai (Supported by the Bill and Melinda Gates Foundation, 2008 –2010), 2010, pp. 71-75.

\textsuperscript{114} Ibid., p.73.
producers as well as the consumers there is a need to regulate the markets. Some of the features observable in the functioning of the markets over the years are: a) There has not been conspicuous change in the types of middlemen existing in the marketing system over time except that the role of processors has increased in some commodities and b) Bakeries, flourmills, dal mills and fruits and vegetable processors have entered the marketing channel and they now handle a considerable segment of the total output\textsuperscript{115}.

Of late, the field of agricultural marketing is facing the daunting task of making the farmers sell their entire marketable surplus through the institutions which were formed for the purpose. It is felt that a lot of weaknesses and bottlenecks in the system have to be addressed on war footing basis in the years to come. For promoting agribusiness in the country, several initiatives have been taken which have created favorable environment for its growth. Some marketing related restrictions have been withdrawn or replaced. As a major initiative, the Government of India drafted a Model Agricultural Produce Marketing (Regulation & Development) Act, 2003. Some of the States/UT’s had amended their respective APMR Act to bring about the requisite reforms in the line with the Model Act. The States have amended their Acts in respect of Contract Farming, Direct Marketing, and Setting up of private markets.

3.6 Regulations for Marketing of Horticultural Products

Current agricultural marketing system in the country is the outcome of several years of Government interventions. The system has undergone several changes during the last 50 years owing to increase in marketed surplus; increase in urbanization and income levels and consequent changes in the pattern of demand for marketing services; increase in linkages with distant and overseas markets; and changes in the form and degree of government intervention. Agriculture being a State subject, the main Act for market regulations, the Agriculture Produce Market Regulation Act (APMC), is to be enacted/amended/implemented by the State Governments. To improve the marketing system of farm products, wholesale agricultural produce markets began to be regulated in

\textsuperscript{115} Ibid., p. 74.
the 1950s and 1960s. This legislation has already covered 7566 markets (2008) i.e. almost 99 per cent of the identified wholesale markets in the country\textsuperscript{116}.

Present policy thrusts are encouraging farmers for collective and direct marketing promoting organized trade; creating and enabling environment for greater participation by the private sector in the marketing system including infrastructure development. The increasing focus on liberalization, privatization and globalization is both a challenge and an opportunity for our farmers. For them to avail this opportunity optimally, it is imperative that relevant internal reforms in the agriculture marketing system are accorded top-most priority. As a major initiative, the Government of India drafted a Model Agricultural Produce Marketing (Regulation & Development) Act, 2003. While all the States/UT’s had agreed to amend their respective APMR Act to bring about the requisite reforms in line with the Model Act, the APMR Acts of 17 States/UTs have been amended only in a limited manner. Besides, the APMR Act originally has not been adapted / repealed in 7 States/UTs. The States have amended their Acts in respect of Contract Farming, Direct Marketing, and Setting up of private markets. The spirit in which the Model Act was conceived is not being fully embodied in the rules being drafted by different states (Table 3.1). The Legislation provides for direct marketing and procurement from farmers; private sector participation in infrastructure provisions; creating of Special Commodity Markets; single point levy of market fee; and contract farming\textsuperscript{117}.

### Table 3.1: Progress of Reforms in Agricultural Markets - APMC Act
(As on 01.05.2006)

<table>
<thead>
<tr>
<th>S.No</th>
<th>Stage of Reforms</th>
<th>Name of States/Union Territories</th>
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<tr>
<td>1</td>
<td>States/ UTs where reforms to APMC Act has been done for Direct Marketing; Contract Farming and Markets in Private/Coop Sectors</td>
<td>Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jharkand, Karnataka, Maharashtra, Mizoram, Nagaland, Odisha, Rajasthan, Sikkim,</td>
</tr>
</tbody>
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\textsuperscript{117} Ibid., pp. 14-15.
2 States/UTs where reforms to APMC Act has been done partially

- **a) Direct Marketing:** NCT of Delhi, Madhya Pradesh
- **b) Contract Farming:** Madhya Pradesh, Haryana, Punjab and Chandigarh
- **c) Markets in Private/Coop. Sectors:** Punjab and Chandigarh

3 States/UTs where there is no APMC Act and hence not requiring reforms

- Bihar*, Kerela, Manipur, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu and Lakshadweep

4 States/UTs where APMC Act already provides for the reforms

- Tamil Nadu

5 States/UTs where administrative action is initiated for the reforms

- Meghalaya, Haryana, Jammu&Kashmir, West Bengal, Puducherry, NCT of Delhi

* Bihar has repealed APMC Act.


### 3.7 Direct Marketing - Farmers Markets

Direct marketing by farmers is being encouraged as an innovative channel intended to help largely the vegetable growers. The direct marketing enables farmers to meet the specific demands of wholesalers or traders from the farmers inventory of graded and certified produce on one hand and of consumers based on consumers preference on the other hand helps the farmers to dynamically take advantage of favorable prices, reduce marketing cost and thus increase their net margins. This encourages farmers to undertake cleaning, sorting, grading and quality marking at the farm gate. This will obviate the need to haul the produce to the regulated markets which are not necessarily equipped with all required services and facilities affecting the marketing efficiency adversely. Direct marketing of agricultural produce helps in complete elimination of middlemen and commission agents who charge a high level of commission fee from the agriculturists/farmers. Thus, rise in farmer income and reduction in food prices paid by the consumer can be made possible through direct marketing. It is reported that the consumers’ prices declined by 20 to 30 per cent and producers received prices rose by 10
to 20 per cent in South Korea as a consequence of expansion of direct marketing of Agricultural Products. Various direct marketing models have emerged that dilute the power of intermediaries to an extent\textsuperscript{118} in our country. This model has been experimented in Punjab and Haryana (Apni Mandis), Andhra Pradesh (Rythu Bazaar), Tamil Nadu (Uzhavar Santhaigai) and Orissa (Krushak Bazaar) and so on. All provisions exist for direct marketing in the market regulation acts of various states.

Some of the most efficient and effective models are Apni Mandi, Rythu Bazars, and Uzhavar Sandies. These channels are mostly adopted in sale transactions of agricultural commodities like fruits, vegetables and flowers which are highly perishable. In this channel, the produce move quickly from farmers to consumers due to lack of middlemen. If farmers directly sell their produce to the consumers, it not only saves losses but also increases farmers’ share in the price paid by the consumer. Farmers’ Markets were introduced with a view to eliminate the middlemen and arrange facilities for the farmers to sell their produce directly to the consumers at reasonable rates fixed every day. On account of the scheme, both the farmers and the consumers are benefited.

3.7.1 Apni Mandies in Punjab and Haryana

Apni Mandi (Our Market) are established in the states of Punjab and Haryana) in the mid-1990s and they were the first ones directly linking vegetable producers and consumers. Farmer producers bring the produce for sale directly to the buyers or consumers. The Agricultural Produce Market Committee of the area where Apni mandi is located provides all necessary facilities like space, water, shed, counters and weighing balances.

3.7.2 Rythu Bazars in Andhra Pradesh

The Rythu bazaars were initiated by the Government of Andhra Pradesh on January 26, 1999. The number of Rythu Bazaars has increased from 49 to 102 and cover nearly 40,000 farmers of 2,800 villages with in a span of nine months in all the district

\textsuperscript{118} ICRIER Working Paper 197.
head-quarters and important towns and cities in Andhra Pradesh. Rythu Bazaars are located on government lands identified by the District Collectors. The locations are decided in such a way as are convenient to both for the farmers and consumers. The criteria for opening of new Rythu Bazaars are the availability of at least one acre of land in strategic location, and identification of 250 vegetable growing farmers including 10 groups of farmers. The price fixation in Rythu Bazaars is through a committee of farmers and the Estate Officer. Adequate care is taken to fix the prices realistically. If the prices in Rythu Bazaars are higher than the local market rate, there is no incentive to consumers. And if the prices fixed are lower than the wholesale market rates, there are no incentives to farmers. The prices in Rythu Bazaars are generally 25 percent above the wholesale rates and 25 percent less than the local retail price. The maintenance expenditure of Rythu bazaars is being met from the financial sources of Agricultural Produce Market Committees.

3.7.3 Uzhavar Santhai in Tamil Nadu

The Government of Tamilnadu introduced a new concept, namely “UZHAVAR SANTHAI” in 1999 with a view to eliminate the middlemen between farmers and consumers in the marketing of vegetables. Within a year, 95 Farmers’ Markets were established, and reached a total of 102 by the 31st March 2001. However, with assembly elections in October 2001 and a change in government, no more Farmers’ Markets were opened, and eighteen have been closed because of low efficiency. Reasons for this include a daily vegetable inflow of less than 200 kg, low number of customers and low number of participating farmers. Farmers’ Markets are under the administrative control of the State’s sixteen Agricultural Marketing Committees, which in turn are part of the Department of Agricultural Marketing. The Committees are also responsible for the administration of Regulated Markets, where farmers sell directly to traders without the intermediary of commission agents and under a tender system supervised by Committee officials. With regard to the Farmers’ Markets, the Committees are responsible for their overall administration. All Farmers’ Markets open at 6.30 in the morning, and usually close at 2.00 in the afternoon, although marketing committee staff remain until 5PM to complete all the paperwork. A notable exception is Maharaja Nagar Farmers’ Market in Tirunelveli, which is open until 7.00 in the evening. This allows farmers to bring in their
produce twice a day, and has therefore attracted large number of farmers, who would otherwise find it difficult to dispose off higher volumes of produce in Farmers’ Markets. The prices of vegetables are fixed each day by a committee including Marketing Committee officials and farmers’ representatives. Committee members collect prices in the central and retail markets before 3.00 in the morning, and by 6.30 the maximum selling prices in the Farmers’ Market are fixed at 15 to 20 percent over the night sale price at the central market, and 20 percent below the price in the retail markets – whichever is higher. Farmers are not permitted to sell above the maximum price, although they are allowed to sell at a lower price. Prices are displayed on a blackboard at each stall, and staff constantly monitor that they are respected. Farmers also get good quality seeds and other inputs in the market itself.

3.7.4 Krushak Bazaars in Orissa

Government of Orissa established 40 Krushak Bazaars in the state in 2000-01 basing on the model of Rythu Bazaars in Andhra Pradesh. Government provides incentives for the purpose which includes one or two acres of government land with all the infrastructure in the identified urban/semi urban area. The farmers are identified and provided with photo identity cards to operate in the market. The identified farmers are supplied with required inputs for vegetable production. In addition, storage and public utility facilities are also provided. The price in the Krushak Bazaar is determined taking wholesale price and retail market price of different products in the respective markets. The comparison of prices in wholesale, Krushak Bazaar and retail market indicate that the prices were 4 to 41 per cent higher in Krushak Bazaar than the wholesale market price. However, in case of retail market, the prices were lower by 10 to 32 per cent in the Krushak Bazaar. The price fixation process rarely involved farmers in the decision making. The participating farmers found price fixation as faulty without accounting for quality differences, inappropriate locations of market and lack of proper infrastructure. Besides, these markets are being dominated by non-farmers.

3.7.5 Hadaspar Vegetable Market in Pune

Hadaspar vegetable market is a model market for direct marketing of vegetables in Pune city. This sub-market yard situated 9 kms away from Pune city belongs to the Pune Municipal Corporation and fee for using the space in the market is collected by the
Municipal Corporation from the farmers. This is one of the ideal markets in the country for marketing of vegetables. In this market, there are no commission agents/middlemen. The market has modern weighing machines for weighing the products. Buyers purchase vegetables in lots of 100 kgs or 100 numbers. The produce is weighed in the presence of licensed weighmen of the Market Committee and sale bill is prepared. The purchasers make payment of the value of produce directly to the farmer. The purchaser is allowed to leave the market place along with the produce after showing the sale bill at the gate of the market. Payment is made in cash. Disputes, if any, arising between buyers and sellers are settled by the supervisor of the Market Committee after calling the concerned parties. The Market Committee collects one per cent sale proceeds as market fee for the services and facilities provided by the Committee to the farmer-sellers and buyers. A common problem faced by the direct market systems is the infiltration of middlemen into the bazaars under the guise of farmers. Though identity cards have been introduced and there are periodical checks, the problem still persists in many bazaars.

This leads us to infer that modern town planning and traffic regulation should take into account the relevance of direct farmers’ markets in respect of perishables which may go a long way in reducing the gap between wholesale price and retail price. However, this may address to the issue of marketing needs of only a section of consumers which is more sensitive to price of the produce and is willing to go to such markets operating at certain distance from their residential areas. The present endeavour is confined to study about the system of Rythu bazaars initiated in the state of Andhra Pradesh.
### Appendix 3.1

#### Table 3.1: Production of Vegetable in India (1991-92 and 2001-02 to 2009-10)

<table>
<thead>
<tr>
<th>Year</th>
<th>Vegetables</th>
<th>Grand Total of Horticultural Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Percentage share</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>1991-92</td>
<td>5593</td>
<td>43.80</td>
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<tr>
<td>2001-02</td>
<td>6156</td>
<td>37.10</td>
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<tr>
<td>2002-03</td>
<td>6092</td>
<td>37.44</td>
</tr>
<tr>
<td>2003-04</td>
<td>6082</td>
<td>31.66</td>
</tr>
<tr>
<td>2004-05</td>
<td>6744</td>
<td>36.56</td>
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<tr>
<td>2005-06</td>
<td>7213</td>
<td>38.56</td>
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<tr>
<td>2006-07</td>
<td>7581</td>
<td>39.10</td>
</tr>
<tr>
<td>2007-08</td>
<td>7848</td>
<td>38.84</td>
</tr>
<tr>
<td>2008-09</td>
<td>7981</td>
<td>38.63</td>
</tr>
<tr>
<td>2009-10</td>
<td>7985</td>
<td>38.25</td>
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</table>

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>Area (Million Ha)</th>
<th>Percentage share</th>
<th>Production (Million T)</th>
<th>Percentage share</th>
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<tbody>
<tr>
<td>Potato</td>
<td>1.13</td>
<td>16.17</td>
<td>18.19</td>
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<tr>
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<td>5.31</td>
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<td>2.80</td>
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<tr>
<td>Okra</td>
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<td>3.54</td>
<td>1.89</td>
<td>2.84</td>
</tr>
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<td>2.89</td>
<td>1.30</td>
<td>1.95</td>
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<td>30.45</td>
<td>45.73</td>
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<td>66.58</td>
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### Table 3.2: Area and Production Estimates for Vegetable Crops

(Area in 000 HA, Production in 000 MT and Productivity = MT/HA)

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<th>2008 - 09</th>
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<table>
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<th>Growth Trends</th>
<th>07 - 08 over 06-07</th>
<th>08-09 over 07-08</th>
<th>09-10 over 08-09</th>
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<tr>
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<td>Area Production</td>
<td>Area Production</td>
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<tr>
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