CHAPTER - VIII
CONSTRAINTS AND GOVERNMENT POLICY

Introduction

Fruits and vegetables play an important role in the economy of Punjab. Despite their utility, the cultivation, consumption and marketing aspects of fruits and vegetables are generally neglected. This is mainly due to severe handicaps associated with the production and marketing of fruits and vegetables. The cultivation of fruits and vegetables in the district is distorted by many factors like low yield and poor quality. The farmers get poor returns and a very little incentive to improve their farm management. In this chapter, an attempt has been made to highlight the problems faced by the producers and sellers in the production and marketing of fruits and vegetables. The various policies adopted by the government for improving the production and yield of fruits and vegetables are also elaborated in this chapter. In the first part, constraints related to production are discussed and in the second part, the marketing problems are highlighted.

Part - I

Production Constraints

The extent of production related constraints vary inversely with the farm size. Smaller farms face production related constraints more as compared to the larger ones. From the survey, it has been found that
there are a number of production related constraints faced by the fruit and vegetable growers in Patiala district. The most common production related constraints found to be long gestation period of the crop, followed by low profit margin of the producer, damage to crop due to diseases, wind, etc. As a result, the overall production level is not satisfactory. The production related constraints are discussed below:

**Traditional Methods of Cultivation:** From the survey it has been found that the sampled farmers are following traditional methods of cultivation. The advanced agricultural practices like soil testing, seed testing, appropriate time of sowing, timely irrigation, proper time of harvesting, etc. are not adopted by the farmers because they are not aware of them. As a result, there is no significant improvement in the yield of fruit and vegetable crops.

**Use of Traditional Varieties of Seeds:** Good returns cannot be obtained from the poor quality of raw material. The survey found that almost 90 per cent of the farmers in the study area use traditional varieties of seeds that are responsible for low yield of fruits and vegetables. They are ignorant regarding the latest varieties of seeds such as hybrid, easy adaptability to climate, early ripening and disease resistant varieties.

**Long Gestation Period:** The main constraint in the way of increasing the area under fruits is the long waiting period (up to 4-5 years). It requires a lot of patience on the part of farmers. The fruit crops like
mango, pear comes into bearing very late. During all these years, the growers have to spend money from their own pocket for various operations like irrigation, fertilizers, weeding, plant protection, etc. and a small or middle level farmer cannot wait such a long period without substantial income.

**Higher Input Costs:** The other major constraint faced by the farmers at the production level in the study area is the lack of application of recommended fertilizers and plant protection chemicals during the development stage. Besides this, the fungicides/pesticides like Bavistin, Karathene, etc. used by the farmers are also duplicate. Because of sub-standard fertilizers and pesticides, these crops are prone to many diseases. Moreover, the charges paid to the labour for cleaning, plucking, loading and unloading are also found high. These costs were found to be Rs.95 per quintal in the case of mango whereas Rs.150 per quintal in the case of peas. All these factors increase their cost of production. But, as compared to production, the prices received by them from the sale of their produce are quite less.

**Bacterial Diseases:** The survey identified that the invasion of fungi, bacteria, insects and other organisms on fruits and vegetables is a major problem. These micro-organisms spread easily because of humid weather and mild temperature. Late-blight of tomato and powdery-mildew in the case of peas are quite common. In the case of guava and
ber, the attack of insects and pests like fruit fly adversely affect the yield of the crop, thereby giving low returns to the farmers.

**Comparative Advantage in the case of Competing Crops:** The main competing crops to fruits and vegetables in the study area are found to be wheat and paddy. The technology used in the production of these crops (use of synthetic fertilizers, high yielding varieties, improved harvesting machines, etc.) is more advanced than that used in the production of fruit and vegetable crops. Moreover, in the case of wheat/paddy, government provides subsidies to the farmers to purchase seed and fertilizers. As a result, the cost of production of these crops is less. Additionally, the government not only announces minimum support price of these crops but also takes the guarantee to buy these crops. Due to these reasons these crops have comparative advantage than fruits and vegetables. As a result, the farmers in the study area are uprooting their orchards and prefer to grow wheat and paddy crops.

**Lack of Technological Advancement:** The production technology of fruits and vegetables in the study area is not adequate. The farmers do not adopt the advanced and protected production technologies like net-house and poly-house technologies. The net-house technology not only increases the productivity of vegetables but also helps in the improvement of their quality. But, the farmers of Patiala district grow the crops on open fields and as a result due to temperature changes, heavy rains, etc. the yield of these crops is low.
The Size of Farm Holdings: The size of farm holdings has a direct effect on the output of fruit and vegetable crops. Sub-divisions and fragmentation of the farms lead to uneconomic holdings and result in lower output. So far as fruits and vegetables are concerned, from the field survey, it has been identified that 70 per cent of the farmers in Patiala district have uneconomic holdings. They cannot efficiently use the farm management practices like planting the trees at an appropriate distance, spray of insecticides, etc. Therefore, the production is very less.

Due to above said reasons, it can be said that cost-price-yield scenario is not favourable for fruits and vegetables in Patiala district.

Part-II

Marketing Constraints

The importance of marketing in agriculture is very well illustrated by saying, “a good farmer has one eye on the plough and the other eye on the market”. This is true when agriculture is mainly for subsistence but now the agriculture has commercialized. In these days of commercial agriculture, it will be more appropriate to say, “a good farmer has only his hands on the plough but both eyes on the market”. An efficient marketing is an important means of raising the income level of farmers and the level of satisfaction of the consumer. In Patiala district, the marketing system of fruits and vegetables is not efficient and lacks proper infrastructure. Fruit and vegetable growers are considered to be bad marketers not only because of their ignorance of
modern methods of marketing but also due to the peculiar structure of marketing over which they have no control. The main problems faced by the producers and sellers during the marketing of fruits and vegetables in the study are as follows:

**Large Number of Functionaries:** It has been found during the survey that large number of functionaries/intermediaries such as pre-harvest contractors, commission agents, wholesalers, retailers, etc. are involved in the marketing of fruits and vegetables in Patiala district. Prevalence of intermediaries in the marketing channel results in unfair and exploitative practices in marketing of fresh produce. Dominance of many of the intermediaries in between the supply chain rob the lion’s share of the producers by deeply penetrating the consumer’s pocket.

**Transport Difficulties:** Another major problem is the non-availability of adequate transport facility. Although the roads are pucca in the selected villages but the means of transport that growers and sellers hire are very much costly. The whole transportation is done through cantor, tempo and tractor-trolley in Patiala district. The rent of these hired means of transport is found to be high. Moreover, during rainy season, it becomes more difficult to transport the produce.

**Rejection by Purchasing Agency:** It has been identified during the survey that because of perishable nature of fruit and vegetable crops and lack of proper grading system, sometimes the purchasing agency in Patiala market rejects the farmer’s produce due to bad quality. Moreover,
the quantity purchased by the agency is very less. They purchase only that quantity which is easily sold in the market. In such a condition, the farmers incur a great loss and get a very low price of their produce.

**Faulty Method of Sale:** The general method of sale is that produce of the farmer is sold by auction in the market. Auction is done under the supervision of market committee by the commission agents who act as wholesalers. Though auction is supposed to be the fair method of selling the produce but during survey it has been identified that auction/bid system in Patiala market is not proper. No doubt, auction/bid is done under the supervision of market committee, but the market committee does not work honestly. It favours the commission agents/wholesalers who act as big traders. Further, because of the collusion of these commission agents with traders (retailers), the farmers do not get remunerative price of their produce. Generally, each producer sells the produce to the particular commission agent because of previous contacts or loan taken. Also, most of regular retailers have contacts with a particular commission agent. Sometimes the produce is not even accompanied by the producer and sent to the commission agent with whom the producer has a regular contact. The commission agents take advantage of this practice and after keeping their due share, they sell the produce to the retailers at low price.
**Inadequate Marketing Intelligence:** Price information helps the farmers to take decisions about when and where to sell the produce so that a better price may be obtained. It has been found during the survey that farmers in the study area have knowledge regarding the prices prevailing in the local market. But, they are not aware about the prices prevailing in the nearby markets (Chandigarh market, Ambala market). Moreover, the awareness about the prices of the distant markets through the government agencies is negligible. Only one or two large farmers observed to have knowledge about the prices in the distant markets and it is through their personal contacts. But, majority of the farmers do not have any source to get information about the market prices of fruits and vegetables in the nearby markets of the district as well as in the distant markets. Therefore, they are compelled to sell the produce at throw away prices in the local market.

**No Procurement Policy:** In the case of wheat/paddy, there is an adequate government policy. The government announces minimum support prices (MSP) as well as procurement prices for these crops. So, the prices are assured because of government intervention, i.e., government purchase but in the case of fruit and vegetable crops, there is no such government intervention. Government does not announce any support price or procurement price of these crops. These crops are totally dependent on market forces due to their perishable nature. Sometimes farmers do not get appropriate returns for their produce.
Therefore, they prefer to grow wheat and paddy because of assured income.

**Lack of Infrastructure Facilities:** Another problem faced by the fruit and vegetable growers in Patiala district is related to infrastructural facilities for the quick disposal of the produce. The infrastructural facilities like cold stores, processing industries, cheap transportation charges, etc. are necessary in the case of fruits and vegetables as these are of perishable nature and cannot be stored under usual conditions. But in Patiala district, the market system is deprived of infrastructure for post-harvest handling of fresh produce. Because of this, the small growers cannot afford to send their produce to distant markets for better returns.

**Financial Difficulties:** The survey showed that the farmers of the study area are also facing the problem of finance. There is no adequate credit facility to the farmers by the agencies in the study area. These people are usually dependant upon commission agents (money lenders) for finance. More than 95 per cent of the farmers take loan from these money lenders to fulfil the requirements related to the production of these crops. But, these people charge a very high rate of interest from producers and compel the farmers to sell their produce through them.

**Lack of Cold Storage Facility:** Because of seasonal and perishable nature of fruits and vegetables, these get spoiled easily. So, the farmers cannot retain them for longer periods to reap more benefits. Therefore,
the cold storage facility to store the fresh produce at the time of low price offered in the market is necessary. But in Patiala district, there is no such facility available to the farmers. Only one farmer, who is engaged in the production of peas near Smana, has his own cold store. Rest all of the farmers in the study area, because of lack of cold storage facility, are forced to sell their produce at unexpected low price.

**Lack of Processing Industry:** The horticulture development is not possible without the establishment of processing industries. Fruits and vegetables are processed into very useful products such as jams, jellies, sauce, squash, syrup, etc. These industries play an important role in generating the income of the farmers. But in Patiala district, there is no such processing industry, which use fresh fruits and vegetables as raw materials to make the useful by-products.

**No Grading and Standardization:** The grading should be regularly practiced before the produce is marketed so that the producers can sell the produce at premium price. It is observed that in Patiala district, grading is not done on standardized basis. Moreover, there is a lack of grading facilities in the market. It has also been brought out that the grading is voluntary except for export in the case of few commodities like potato and peas. Traders for some commodities practice informal grading based on size, freshness and appearance of the produce at different levels of marketing. Most of the cultivators fear that if the
produce is graded and sold, it may become difficult to dispose off the low graded produce.

**High Cost of Packaging Material:**  As regards packaging, it has been observed that the present method of packaging of horticulture produce has resulted in post-harvest losses. For packaging the produce, containers like wooden boxes, plastic crates and gunny bags are used by the sampled farmers in the study area. The rent of empty plastic crate was found to be Rs.5 and gunny bags also cost Rs.2-3 to the producer. Additionally, the farmers do not have much information regarding the comparative costs of present packing material used and improved ones like corrugated fibre board boxes. Moreover, the farmers are not aware of ethylene absorbent papers to prevent losses due to spoilage.

**Lack of Unity and Organization Skill:**  Farmers can get better prices by selling through co-operative and marketing societies and can avoid the possibility of being cheated. Moreover, these societies can arise the spirit of self-confidence among the farmers, eliminate the intermediaries and ensure fair prices to both producers and consumers. But, there is a lack of unity and organization skill among farming community in Patiala district, which has proved a major impediment in the formation of cluster groups and co-operatives among the selected farmers.

**Malpractices Adopted by the Middlemen:**  It has been found during the survey that the main problems that the cultivators face, are the malpractices adopted by the middlemen in the marketing of the produce.
The malpractices adopted by the middlemen during the auction of the produce and in price fixation are under weightment, low prices through collusion, and refusal to purchase the low graded produce, etc. The cultivators face the risk of being cheated by the middlemen because of illegal deductions such as market fee.

**Lack of Approach to Distant Market:** The farmers in the study area cannot approach distant/desired markets to sell their produce at better prices. The reasons responsible for this are the low volume of the produce, high transportation cost and lack of awareness regarding desired distant markets. The other reasons being that the farmers are dependent upon commission agents for their financial requirements. The commission agents in turn compel them to sell their produce to them as the farmers have taken loan from them. The commission agents thus exploit the farmers by giving them low price for their produce.

**Improper Pre and Post-harvest Handling:** The present system of handling and marketing of fruits and vegetables is found to be inefficient, unsatisfactory and outdated in the study area. The improper pre and post-harvest handling techniques like absence of refrigerated vans for transportation, inappropriate packaging, lack of storage facility, etc. lead to heavy losses to the farmers. Not only producer gets the low price and consumer pays more, but a substantial quality of the nutritious produce goes waste. This wastage ranges between 20-40 per cent of the produce by the time when it reaches to the final consumer.
Government Policy

The results showed that in Patiala district, the production and marketing of fruits and vegetables suffer from a number of constraints. As a result, the farmers are deprived of the fair price of their produce. In order to remove the major constraints, the government has adopted various measures such as creation of infrastructural facilities for the marketing of fruits and vegetables, market promotion through advertisement, setting up of Quality Control Labs, Research & Development in identifying new techniques and practices including those for packaging. There are several State Plan Schemes and Centrally Sponsored Schemes in operation with the Department of Horticulture. The main aim of these schemes is to increase the production and productivity of fruits and vegetables and to improve the marketing system of these crops. Firstly, the state funded schemes are discussed and then centrally sponsored schemes are elaborated.

State Funded Schemes

1. Diversification of Agriculture through Development of Horticulture: During the 11th Five-Year Plan (2007-12), this scheme has been reframed by merging the three schemes, i.e., development of horticulture including sericulture, diversification of agriculture through horticulture and improvement of quality of perlette variety of grapes. The main objective of the scheme is that the department farms and nurseries should be equipped with modern machinery. The quality plant material
thus produced should be provided to the growers on 50 per cent subsidized rates; and an additional area of 20,000 ha should be brought under cultivation of fruits during the 11th Five-Year Plan. A total amount of Rs.200 lakh was provided for the Annual Plan 2010-11 for this scheme to fulfil these objectives.

2. **Demonstration-cum-Fruit Preservation Laboratories and Community Canning Centers:** The objective of this scheme is to train and educate the fruit growers about the latest techniques for the preservation and preparation of various products like squashes, jams, jellies and other canned products from fruits and vegetables. An outlay of Rs.40 lakh was provided for the Annual Plan 2010-11. At present, six government fruit preservation laboratories are established at Patiala, Abohar, Hoshiarpur, Jalandhar, Ludhiana and Amritsar; and 14 Community Canning Centers are functioning in the state. The products are sold to general public on marginal rates. Under the Community Canning Scheme, fruit products are also prepared on custom basis on nominal charges.

3. **Transmission of Technology in Horticulture Practices:** During the 11th Five-Year Plan, the scheme has been reformulated by merging two schemes, i.e., scheme of Transmission of Technology through Extension, Demonstration and Training in Horticultural Practices and setting up of Information Training Centers. This scheme is formulated to provide the latest technical know-how relating to horticulture and
vegetable programme; and scientific use of horticulture inputs like seeds, fertilizers, plant protection measures, etc. Training regarding pruning of trees and weed control, etc. is provided in a simplified way to the fruit and vegetable growers by organizing fruit/vegetable shows and seminars. Farmers training camps are also organized at the district and at village level. Under the scheme, an incentive of Rs.5000 per hectare for 200 ha is given to the citrus growers to purchase the fungicides used to protect the citrus orchards from fungal disease. Moreover, to promote the production of vegetables, demonstration of hybrid and high yielding varieties are conducted. An outlay of Rs.185 lakh was provided for the 11th Plan, out of which an amount of Rs.40 lakh was provided for the Annual Plan 2010-11.

4. **Strengthening the Citrus Estates:** Under this scheme, five citrus estates are established at Badal, Abohar, Tahliwala Jattan (Ferozepur), Chaunni Kalan (Bijwara) and Hoshiarpur to facilitate the production and marketing of kinnow and other citrus varieties. The facilities like tree pruners, fruit graders, pre-cooling chambers and waxing of fruits are created in these estates. An outlay of Rs.1000 lakh was provided in the year 2007-08. An expenditure of Rs.2000 lakh was incurred during 2007-08 including Rs.1000 lakh provided from RDF. An outlay of Rs.50 lakh was provided for the Annual Plan 2010-11 which is quite less.
5. **Strengthening of Horticulture by Production of Disease Free Fruit Plants and Vegetables:** The main objective of this scheme is to protect the yield of fruit and vegetable crops from severe attack of insects/pests and diseases. The rates of insecticides/fungicides/pesticides used to control the attack of pests are very high due to which, the farmers cannot afford their prices. Therefore, it is proposed to provide insecticides/fungicides/pesticides to the farmers at 50 per cent subsidy under this scheme.

6. **Grant-in-aid to Counsel for Citrus and Agro Juicing, Punjab:**

The Counsel for Citrus and Agro Juicing, Punjab was established to implement the crop diversification agenda of the state government and especially focus on implementing the citrus programme. The main objectives of the scheme are to improve the economic condition of farmers (small and marginal), create jobs/employment for youth of Punjab and provide impetus to food processing industry. As a result of this scheme, soil fertility has been improved and rational use of water through drip irrigation is made possible. An outlay of Rs.600 lakh was provided for the Annual Plan 2010-11 to support the counsel financially.

**Centrally Sponsored/Funded Schemes**

1. **State Share of National Horticulture Mission:** National Horticulture Mission (NHM) has been implemented for holistic development of horticulture. The NHM was started as 100 per cent
Government of India’s (GOI) programme during 2005-06. From the year 2007-08, the schemes have been changed to 85:15 ratio of GOI and state share. The main objective of mission is to double the area and production by 2011-12, post-harvest management, processing of fruit and vegetable; and proposal for the establishment of modern markets. Apart from this, there is also a provision of financial assistance for the establishment of Green-House, organic farming, strengthening of nurseries with infrastructure. An outlay of Rs.5100 lakh with 85 per cent as GOI’s share and Rs.900 lakh as 15 per cent state share was provided for the Annual Plan 2010-11.

2. **Crop Estimation Survey on Fruits and Vegetables; and Minor Crops:** It is a staff scheme in which crop cutting experiments to assess the average yield are carried out in government as well as private orchards. Crop cutting experiments of kinnow, mango and potato crops are carried out. This scheme is run by two departments:

(i) **Agriculture Department:** An outlay of Rs.45 lakh was provided for the 11th Plan. No expenditure was incurred during 2009-10 due to shortage of staff. However, an outlay of Rs.4.30 lakh was provided for the Annual Plan 2010-11.

(ii) **Horticulture Department:** An outlay of Rs.98 lakh was provided for the 11th Plan. Out of which an outlay of Rs.20 lakh was provided for the Annual Plan 2010-11.
3. **Rashtriya Krishi Vikas Yojna (RKVY):** Under this scheme, for the safe handling and marketing of fruits and vegetables, the plastic crates are provided on 50 per cent subsidy. Besides this, to encourage the cultivation of vegetables under Net-House and to improve economic condition of farmers, the financial assistance of Rs.40,000 per net house is provided by the Department of Horticulture, Punjab. An outlay of Rs.114 lakh was provided for the Annual Plan 2010-11. Out of which, Rs.40 lakh were meant for providing plastic crates, and Rs.74 lakh were for installing Net-Houses.

These beneficiary schemes are implemented by the Department of Horticulture, Punjab to enhance the profitability of the growers by bringing improvement in the productivity, quality production and post-harvest handling of horticultural produce on the one hand, and ensuring the supply of quality produce at affordable prices to the consumers on the other. Besides this, the department has a close link with Punjab Agriculture University, Ludhiana and other research agencies in the country so that the growers can be informed about the latest recommendations in respect of fruits and vegetables.

**Summing-up**

Fruits and vegetables are more prone to production as well as marketing problems compared to other agricultural commodities because of their basic characteristics of perishability and bulkiness. The other constraints related to the production of fruits and vegetables are found to
be attack of bacterial disease, use of traditional methods of cultivation, high cost of inputs, etc. In addition to these problems, farmers also face the marketing related constraints such as lack of proper infrastructural facilities like absence of cold stores, faulty method of sale, inadequate marketing intelligence, etc. The existence of large number of middlemen accentuates these problems. The government has launched various schemes, which are meant for increasing the production and yield of fruits and vegetables and for improving their marketing system. It is hoped that these schemes will help to achieve the goal of diversification of agriculture by encouraging the cultivation of fruit and vegetable crops but the success of these schemes depends upon proper implementation. In fact, adequate transportation facilities, a sound marketing intelligence system for the latest price information, organized co-operative marketing societies, proper auction/bid system for sale of fruits, government intervention in marketing in form of minimum support price, proper infrastructure facilities like cold storage, large sheds, parking facilities, proper lighting, pucca floors, etc. are the need of the day for boosting the fruit and vegetable production in Patiala district as well as in Punjab state.