CHAPTER - 5

COMMERCIALIZATION OF AGRICULTURE

Commercialization of agriculture which can be defined as a process where peasants start producing primarily for sale in distant markets, rather than to meet their own need for food or to sell in local markets, has taken place at different times in response to different stimuli. In the Indian context though a number of commercial crops such as cotton, tobacco and sugarcane were grown fairly extensively even before the advent of British rule, since land revenue had to be paid mostly in cash and the prices of these crops were much higher at that time relative to the prices of foodgrains, however, commercialization of agriculture at that time corresponded only to the requirements of traditional ‘revenue economy’ in which the main form of revenue payable happened to be an indistinguishable mix of tax, tribute and land rent. Moreover, the considerable economic differentiation that could be observed within the peasantry at that time reflected not so much the impact of market forces as the power of ‘command’ and ‘custom’ within the framework of traditional societies. No doubt the need to pay revenue in cash was the initial compelling force for the marketing of agricultural produce, the large surpluses so extracted from agriculture, without a flow of goods and services in the

2 Irfan Habib has drawn pointed attention to some other important features of the production systems in the Mughal period, such as that there were considerable differences in the size of cultivated holdings; that the larger holdings were linked to and often resulted from superior positions or status secured either as headmen or as members belonging to ‘dominant elements’ at the village level; that cultivation by big peasants in these holdings was based on wage labour drawn from menial castes; and that it was in such holdings that cash crops like cotton, tobacco and sugarcane were grown, as they required higher investments. For more details see Irfan Habib, “The system of agricultural production: Mughal India”, and “Agrarian Relations and Land Revenue: Northern India,” in Tapan Raychaudhuri and Irfan Habib (ed.), The Cambridge Economic History of India, Vol. 1, c.1200-c.1757 (New Delhi: Orient Longman, 1982).
4 For an analysis of the role of ‘Custom’ and ‘Command’ in relation to non-market and market economies, see: John Hicks, A Theory of Economic History (Oxford University Press, 1969), chapter II.
reverse direction in exchange, was basically an impediment to further commercialization. Thus, commercialization of agriculture in pre-British period existed only in its embryonic form.

In true sense, therefore, agriculture of India got a commercial orientation during the British rule. Though markets and trade in agricultural goods existed in quite organized forms and on a large scale in the pre-British period but the market expansion in the British period marked a qualitative and quantitative break. According to Tirthankar Roy, there were three main qualitative changes. 'First, before the British rule, product markets were constrained and subject to imperfections, given multiplicity of weights and measures, backward and risky transportation systems, and extensive use of barter. British rule and the railways weakened these constraints. By doing so, it enabled closer integration of global, regional and local markets. Second, from the time of industrial revolution, a new international specialization began to emerge as a result of trade. India specialized, in agricultural exports. Third, in turn, changes in the product market induced changes in land, labour, and credit markets'. It is interesting to note that though there is little controversy with regard to the role of British in initiating and promoting the forces which led to the commercialization of Indian agriculture, however, the nature of commercialization and its impact on the Indian peasantry had been very controversial issue, both during and after the British rule. To the nationalists, it was not out of the free will of the cultivators– commercialisation of agriculture was forced and artificial. This was so because the high pitch of revenue demand in cash compelled the cultivators to sell large portion of the produce of their fields keeping an insufficient stock for their own consumption. On the other hand the colonial bureaucracy argued that it was the market force rather than the pressure of land revenue that was drawing the farmers into the business of production for the market. The commercial crops were more

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6 Tirthankar Roy, op. cit., p. 124.
7 R.C Dutt, Economic History of India in the Victorian Age, 1837-1901 (London, 1906).
profitable and this economic incentive led them to produce for sale and export, thus making it possible for them to increase per capita income\(^8\). Furthermore, the imperialist historiography and the colonial bureaucracy viewed commercialisation of agriculture, the expansion of trade in agricultural products and the rising agricultural prices as an indication of the ‘growing prosperity of the peasantry.’\(^9\) On the other hand anti-imperialist historiography (both nationalist and radical Marxist) emphasizing the negative impact of commercialisation of agriculture and the integration implied that agricultural production in India was to be determined by imperial preferences and needs\(^10\). Moreover, other historians following the neo-classical economic theory or with anti-imperialistic orientations (Marxists and non Marxists) have extended their support to either of the two\(^\text{11}\).

Notwithstanding the divergent and conflicting notions and interpretations about the impact and significance of the expansion of commercialization of agriculture and agrarian market but there is little disagreement that British rule led to a complete but complex integration of India’s economy with the world capitalist system but in a subservient position\(^12\). The various changes introduced by the British in India were primarily motivated by their objective of keeping the Indian economy subservient to the


\(^11\) According to the anti-imperialists, given, that population was increasing the cultivators would have preferred sowing a large acreage with food crops or selling a smaller volume of food crops in the market. But the burden of the revenue/rent to be paid in cash and the pressure of the moneylender led them to divert resources to the production of cash crops or sell more food crops than could be justified taking into consideration their consumption needs, for details see M. Mufakharul Islam, Irrigation Agriculture and the Raj: Punjab, 1887-1947 (New Delhi: Manohar Publishers and Distributors, 1997), p. 62.

\(^12\) Bipan Chandra, India since Independence (New Delhi: Penguin Books India Pvt. Ltd, 2008), p. 11.
parent economy [British economy]. The integration of the Indian economy with the world economy, resulting in the increased demand for raw material, was meant to speed up the supply of raw material to the metropolis, which in turn forced the colonial government to revolutionize the communication system. The opening of the Suez Canal in 1869, synchronizing with the fast growth steam navigation, revolutionized the east-west trade. Telegraphic communications between England and India since 1855 further broadened the contact by making possible a more accurate and quicker study of the demand and supply position and of other related phenomenon. The liberalization of tariff policy by the British Govt of India, particularly after 1867, by abolishing or reducing export duties on many commodities, and the gradual fall in ocean freight also contributed to the expansion of the India’s foreign trade. These developments affected not only the volume, but also the commodity composition of the trade. It was no longer practically confined to ‘drugs, dyes, luxuries’, and now included in large quantities foodgrains, fibres, and other great staples of universal consumption, boosting the commercialization of agriculture. Moreover, the internal trade and commerce was much stimulated by a gradual development of communications. The most remarkable development at that time resulted from the growth of railways, the role of which as an economic force and pace setter, involving innovation in some production functions, cannot be ignored.

The princely State of Jammu and Kashmir lying at the fringe of the British Empire, however, could not witness the impact of the aforementioned revolutionary changes which occurred in the economic sector of the British Empire.

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13 According to the Dependency theorists colonialism creates a situation in which the economy of the colony is conditioned by the developments and expansion of the parent/master economy. For more details see T. Dos Santos, “The Structure of Dependence”, American Economic Review (4· 2· 1970), p. 231.

14 It goes without saying that pace of industrial growth in some of the nations in the continent of Europe was far quicker during and after the second half of the 19th century.


Indian Empire. The undulating topography of the State in general and that of the valley of Kashmir in particular made it impossible for it to play the role of an economic satellite for the metropolis [British]. Furthermore, owing to certain political reasons the colonial authorities did not intercede directly in the region’s political economy until late 1880’s; also the colonial impact in Kashmir was mediated through the Dogra state– the Dogras being the direct rulers of the region. Although in the absence of vibrant forces like those which had been in operation in British India [Railways, Markets,] the nature of agricultural production in Kashmir continued as earlier, with the cropping pattern being predominated by food cereals; however, the economy of the region was not a stagnant or closed economy.

Notwithstanding the topographical constraints restricting the linkages of Kashmir economy with the economy of the plains by making communications with the outside world very difficult; that Kashmir was practically a self-supporting country, inhabited by people who were singularly free from extravagant tastes, however, the valley had not been economically and culturally isolated from outside world prior to the late nineteenth century. An external trade had sprung up and Commodities such as salt, cloth, tea, metals and tobacco were being carried by Kashmiri peasant as they migrated seasonally between the valley and the plains of Punjab. Besides trade through seasonal migration, a class of professional muleteers [Markham]

18 In normal years the food supply of the valley was ample for its inhabitants, with of course very low diet standards, and for clothing people had wool and a certain amount of locally produced cotton of a fair quality to wrap them with. With the exception of salt, there was no other commodity of life which needed to be imported, for more details see, Walter R. Lawrence, The Valley of Kashmir (Srinagar: Gulshan Publishers, 2002); Shali [unhusked rice] was the main crop cultivated in the Kashmir valley, since the physical characteristics and climate of the valley lent themselves to rice cultivation while preventing the intensive farming of most other crops. A number of other crops, such as maize, saffron, cotton, sesame and fruits were also grown and harvested but their importance to the agricultural economy remained marginal due to the absence of a substantial market for these products in mid-nineteenth-century Kashmir, Chitrelekha Zutshi, op. cit., p. 61.
19 Lawrence, op. cit., p. 383.
21 Lawrence, op. cit., p. 383.
carried out transactions with Punjab bullock drivers’. Only goods with favourable value-to-weight ratios were traded, since without all-weather roads and bridges, carriage by horses and donkeys in the hills and pack-bullocks in the plains was very costly, often multiplying the original costs of goods several times. Trade from Kashmir into British territory in 1805, for example, was valued at only Rs 141,757, and cowries, piece goods, and shawls accounted for 91 percent of it. With the opening of the Jhelum valley cart road to wheeled-traffic in 1890, the communications of the valley with British India improved considerably leading to the instantaneous increase in the trade with Punjab which was further boosted by the opening of Banihal Cart Road (1922) providing a direct link between the valley and Jammu. The value of perishable commodities such as fruits and ghee to the export trade increased dramatically with better communications and a beginning was made towards laying orchards for commercial purposes. Also silk became a commodity of increasing value at the turn of the twentieth century. However, the balance of this trade, which mostly followed three routes: the Banihal Pass that connected the valley to Jammu, the Old Imperial Road that ran over the Pir Panjal and reached the railway at Gujarat, and the Jhelum Valley road which ran along the river Jhelum from Baramulla to Kohala in the Punjab, was in favour of imports; therefore, what was earned was almost immediately lost. Also the lion’s share of the profit derived from the trade was appropriated by the state and few merchants and traders.

22 Ibid.
24 In 1920-21 fruits worth Rs 10,60,018 and ghee worth Rs 6,20,924 were exported from Kashmir to Punjab., For more details see M.L. Kapur, Social and Economic History of Jammu and Kashmir State, 1885-1925 A.D (Jammu: Anmol Publications,1992), p. 344. The value of exports from the valley which was Rs 4060148 in 1884 rose to Rs 15594000 in 1944-45.
The internal trade of Kashmir which consisted of imported commodities as well as locally produced agricultural products and manufactures was fairly brisk. The boats laden with paddy, Salt, vegetables, fruits, tobacco, snuff, paper, earthen pots, kangris, grass bricks, stones and other forest products were loaded and unloaded on the lakes around Srinagar. This trade was conducted both by the state and by the private businessmen. However, though rice was the most intensively cultivated crop in the valley, accounting about three-fourths of the cultivable area during the Sikh period and was the most important food crop in terms of value in the early Dogra period, still no market truly existed for this commodity as its export had been prohibited since the early days of the Dogra rule. In the absence of market for food grains, the state alone played the role of the grain trader in Kashmir and also fixed their prices. The compensation paid to the cultivators for shali [unhusked rice] was kept low with a ‘perfect indifference to harvests’. On the other hand, the value of agricultural commodities, such as cotton, mung, pulses and oil seeds, was fixed at higher rates than justified by the demand. Thus, under the Dogra rule not only had the cultivator to bear the burden of high revenue demand but he also suffered under the food control system operating in the valley. The manipulation of the market by the Dogra state had ensured that the cultivators had compulsorily to sell rice below the proper market price and pay higher rates in order to buy it back for their consumption needs. By contrast, they were paid higher rates for cotton and such products than they cost in the market, making it more economical for them to give these up as revenue and buy the quantities of these goods that they needed from the bazaar. It was for this reason that the cultivator was concerned above all to induce revenue.

26 S.N. Gadru, Kashmir papers, pp. 54-55.
27 Lawrence, op. cit., p. 381.
28 Chtrelekhha Zutshi, op. cit., p. 61.
31 Ibid.
officials to take as much of the revenue demand in higher priced goods than in shali, which they needed for their own subsistence\textsuperscript{33}.

Therefore, notwithstanding that the topography of the valley was not supportive to its greater communications with other parts of the British Empire thereby, substantially impeding its economic integration; that the factors/stimuli which accelerated the commercialization of agriculture in India, such as establishment of sound railway network, could not operate in Kashmir, but there is no denying the fact that the high land revenue demand on the cultivator, absence of qualitative markets in the state, manipulation of market prices by the Dogra state and lack of interest on part of the cultivator to switchover to cultivation of other crops, as food was his primary concern, were also equally responsible for the lack of commercialization of agriculture under the Dogra rule. It is therefore, not surprising to see that although the peasants were paid higher rates for the cotton, pulses, mung and oil seeds than they cost in the market still they preferred to cultivate paddy and other food crops because food was the primary concern of the peasant and the government, besides being adamant to collect its share of revenue in kind, had also been resorting to the practice of Mujawaza- under which the peasants were called upon to deliver Shali to government granaries in the city, so that it could be distributed to the city population- from time to time\textsuperscript{34}. Therefore, the crops like cotton which were the main commercial crops in British India were either produced for the domestic consumption or used as a substitute for shali to pay the revenue and not to sell in markets to earn the profits as is the case under commercialization.

The commercialization agriculture in Kashmir in true sense is a post-1947 phenomenon with fruits especially apple, and saffron being the chief cash crops. Notwithstanding the fact that the provision of the \textit{Big Landed Estates Abolition Act} [1950] exempted the orchards from appropriation, thus paving

\textsuperscript{33} Mridu Rai, op. cit., p. 153.
\textsuperscript{34} Chitrelekha Zutshi, op. cit., p. 111.
way for the big landholders to escape the ceilings by converting cereal acreages into orchards, it sowed the seeds of commercialization of agriculture in the state\textsuperscript{35}, however, the hypothesis that one of the major causes of the growth of orchards lies in the inherent flaws in the agrarian reforms which exempted the orchardists from the preview of the land ceilings limits, is not being fully supported by statistics, which show that the up to 1962 the major beneficiaries of the conversion were vegetables and other cash crops. The statistics of conversion of land between 1951 and 1962 are shown in the table below:

**Table 5.1**

**Conversion of Lands under Food Crops into Orchards, Seed farms and other Cash Crops (1951-1962) in Kashmir Division:**

<table>
<thead>
<tr>
<th>Class of land under food crops</th>
<th>Acreage of land converted into</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Orchard</td>
<td>Seed farms</td>
</tr>
<tr>
<td>Irrigated paddy land</td>
<td>1101</td>
<td>193</td>
</tr>
<tr>
<td>Other irrigated land</td>
<td>5,114</td>
<td>412</td>
</tr>
<tr>
<td>Malyari</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>Dry (un-irrigated Land)</td>
<td>11,232</td>
<td>682</td>
</tr>
</tbody>
</table>

*Source: Land Commission Report, 1968*

The diversion of land to cash crops especially fruits like apple in Kashmir, thereby giving agriculture a commercial orientation, therefore, was not the result of any single factor but the cumulative impact of a wide range of factors which came to the surface after the end of the Dogra rule. The chief factors which facilitated this change were: heavy investments in the development of rural infrastructure,\textsuperscript{36} construction of roads, development of


\textsuperscript{36} Rural transport and communication, electricity, markets and financial institutions are considered as hard – core elements of rural infrastructure. For details see Raissudin Ahmed,
irrigation infrastructure, adoption of new policies for market creation –both local and distant, and the introduction of new technologies viz. high yielding varieties of seeds, fertilizers and modern implements. Nevertheless, the highly favourable cost-benefit ratio for cash crops was also a decisive factor responsible for motivating the peasant to switch over to the cultivation of crops like apple and saffron.37

The development of rural transport and communication infrastructure38 enhanced the mobility of people and information through reduction in cost and time and increased their interaction with the outside world. The development of infrastructure led to the development of markets and reduction of marketing cost, both of which acted as the key driving forces for agricultural commercialization. It is needless to say that market development acts as a critical link between infrastructure and commercialization39.

In view of lack of railways, difficult terrain, inaccessibility of areas and extreme winter conditions, the importance of road communication sector of the state economy assumed greater significance and had both economic and social connotations. Before the 1st Five Year Plan, Jammu and Kashmir had 2.5 miles of roads per 100 sq. miles and only one mile of road per 2000 of population40. After 1950, the sector registered manifold increase in road length. The total state road length of 3091 kilometres including 1215 un-surfaced ones during 1950-51 increased to 13604 kilometres by 199841. This vast network of

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38 The total number of vehicles in 1975 was 19808 which increased to 110102 in 1990. Transport commissioner vide Digest of statistics, Directorate of Economics and Statistics, Planning and Development Department, 2004-05, p. 287.
40 Hindustan Standard, Dated: 4-11-1957.
roads connected the far-flung areas of the valley with the District headquarters which in turn connected them with the cities of Srinagar and Jammu.\textsuperscript{42} The construction of feeder roads made it possible for the grower to transport his commodities, especially the perishable commodities, to the indigenous markets at affordable costs, thereby making the cultivation of fruits, vegetables and other such crops demanded in the market (both local as well as distant) more economical than the subsistence crops. However, it would not be out of place to mention here that the change in the political geography\textsuperscript{43} of the state in 1947, leading to the blockade of the natural/historical routes connecting the valley of Kashmir with the outside world, restricted the growth prospects of the fruit industry as the markets of the valley fruit were mostly concentrated in that part of the sub-continent which was now either the part of Pakistan or simply came under its political influence. Instead of four waterways, three highways and one railway linking the state with the outside world, the state now had only one road i.e., Banihal Cart Road, which also could not be negotiated during the winter\textsuperscript{44}. It was with the opening of Jawahar tunnel\textsuperscript{45} in 1950’s, which considerably increased the road transport, that the connectivity of the valley with India was restored to a large extent. In fact, the opening of the tunnel proved a landmark for the fruit industry of the state as with the change in the geo-politics of the region the main markets for the region’s fruits were now located in northern Indian States\textsuperscript{46}.

\textsuperscript{42} In 1950-51, only 405 villages were connected by roads while the number of such villages increased to 4261 by March 1998. For more details see Jammu and Kashmir: Fifty Years, op. cit, p. 310.

\textsuperscript{43} A considerable part of the state came under the occupation of Pakistan which blocked the natural routes of the state and therefore, checked its connectivity with the exterior world.


\textsuperscript{45} The Banihal tunnel project was the biggest project of State’s First Five Year Plan (1951-56). It was a three crore project which progressed ahead of its schedule and one tube of the tunnel was thrown open to traffic in December 1956. Hindustan Standard, Dated: 4-11-1957.

\textsuperscript{46} Major portion of the Kashmiri Fruit is still being sold at Azadpur Market [Mundi], New Delhi.
The development of irrigation facilities which is directly related to productivity\textsuperscript{47} of the agricultural fields started in a big way on government level after the end of Dogra rule. It was declared as a priority sector and accordingly, the financial outlays were substantially increased to effectively utilize the available irrigation potential through the execution of various minor, medium and major irrigation schemes in the state. The development of irrigation infrastructure considerably increased the irrigated area in the state which in turn led to the increase in agricultural production\textsuperscript{48}, thereby increasing the proportion of \textit{marketed surplus} in the state. However, the magnitude and composition of the marketed surplus varied from one region of the valley to the other. In those regions of the valley where the productivity of paddy per acre was better (valley floor) the newly irrigated lands were mostly brought under paddy cultivation– making this a commercial crop\textsuperscript{49}, whereas areas either closer to the city (main markets) or less productive in terms of paddy cultivation the newly irrigated lands were brought under the cultivation of vegetables and other cash crops. Thus it becomes obvious that irrigation facilitated the shift in cropping pattern by providing options to peasants to try other crops. (For details see chapter on cropping pattern).

Another factor which proved instrumental in accelerating the pace of commercialization of agriculture in the state was the introduction of new technologies. With the advent of new technologies, the cash requirements of farm households increased on account of increased use of purchased inputs especially fertilizers, insecticides etc., necessitating the cultivation of cash crops on a large scale. As a result, the proportion of area under cash crops, especially apple and other high return crops, increased overtime. No doubt there was a

\textsuperscript{47} Development of irrigation facilities is a must for both intensive and extensive cultivation. Even hybrid seeds and modern means of technology would be useless in absence of assured irrigation.

\textsuperscript{48} The most silent feature of irrigation development programme in the state was that attention was paid towards providing irrigation facilities to backward and remote areas to enable the people there to irrigate their lands to the extent possible and thus increase food production.

\textsuperscript{49} Commercialization is not restricted to just cash crops: The so called traditional food crops are frequently marketed to a considerable extent and the so-called cash crops are retained, to a substantial extent under suitable conditions.
sort of complementarity\textsuperscript{50} between technological changes and commercialisation of agriculture in most of the areas of the valley– the diversion of land towards commercial crops encouraged the adoption of yield increasing technology in staple foods by farm households to compensate for the loss in available production due to crop shift while as the introduction of yield increasing technology in turn promoted the diversion of land from staple crops to cash crops-, however, it is important to mention here that in some areas of the valley, marshy and flood prone, the conventional crop– paddy- which was normally taken as a "subsistence crop" successfully exploited the technological and infrastructural changes and injected dynamism into agriculture. There it played a progressive role– progressive in the limited sense of enabling the cultivators to produce for the market, accentuate the process of monetisation and made the cultivator to look upon agriculture as something more than a 'way of life'. However, the increase in production in these areas could not keep pace with the growing population and paddy, therefore, continued to be a subsistence crop. Besides the above mentioned factors the government of the state also encouraged the diversification of agricultural economy. Provisions of incentives and credit on differential rates of interest, technical guidance, extension services, and fertilizer and other input subsidies, effective pest and weed control methods and marketing facilities had been the main government inputs in the sector\textsuperscript{51}.

However, it is important to mention that the chief commercial crops in the valley were not the cereal crops like rice and wheat but the non-cereals especially fruits like apple, pears, almonds and walnuts and crops like saffron. This was not surprising in view of the fact that after 1947 the market was liberated from the control of the state to a very great extent and the remunerative value of the said crops was high in comparison to the food crops.

\textit{Production and export of main cash crops of the valley}

Owing to the ideally suited climatic conditions for the growth of almost all kinds of temperate and most of the varieties of tropical and sub-tropical

\textsuperscript{50} For more on the complementarity between technology and commercialization see: Nurul Islam, The Driving Forces of Commercialization in Joachin Von Braun and Eileen Kennedy(eds.), \textit{Agricultural Commercialization, Economic Development, and Nutrition}, op. cit.,

\textsuperscript{51} M.L. Misri, op. cit., p. 251.
fruits, horticulture, in general and fruit growing in particular had been an age old activity in Kashmir\textsuperscript{52} and continues to play a vital role in the economic scenario of Jammu and Kashmir. This sector not only provides direct employment but also establishes linkages of various kinds. Apart from labour and capital inputs, the sector generates demand for a wide variety of ancillary activities such as servicing of inputs, packing material, pruning and cutting of branches and transportation of fruit from orchard sites to the fruit centres in the towns and cities in the valley. These ancillaries have in turn, generated wage employment particularly in horticultural belts.\textsuperscript{53} According to the estimates of the Horticultural Department about 4.85 lakh estimated families are involved directly in fruit growing and around 20 lakh people are employed in this sector.\textsuperscript{54} The significance of the horticultural sector in the state economy can be gauged from the fact that it annually contributes about Rs 400 crore to the state economy.\textsuperscript{55}

\textit{Kalhana}, the great historian of Kashmir mentioned fruit culture in his famous book ‘Rajarangani’ during the reign of King Nara as early as 1000 B.C.\textsuperscript{56} It was, however, during the period of Lalitadiya (900 A.D) that horticulture for the first time received considerable patronage.\textsuperscript{57} Zainulabidin [1420-70] got many varieties of fruit plants from Kabul and it was during his rule that fruit of the valley was being exported to other countries. Huen Tseng, a Chinese pilgrim (AD 631) who travelled and stayed in the valley for two years had mentioned that, pears, wild plum, the peach, the apricot, and the grapes were profusely cultivated in the valley. In fact Kashmir was celebrated for its grapes during the Mughal period,\textsuperscript{58} especially during the reign of Akbar. However,

\textsuperscript{54} Ibid.
\textsuperscript{56} Majid Hussain, op. cit., p. 171
\textsuperscript{57} Ibid.
\textsuperscript{58} Lawrence, op. cit., p. 351.
under the Dogra rule the good vines were cut down to avoid the exactions of the officials\textsuperscript{59}. Walter Lawrence rightly remarks:

Kashmir is a country of fruits; perhaps no country has greater facilities for horticulture, as the indigenous apple, pear, vine, mulberry, and walnut, hazel, cherry, apricot, raspberry, gooseberry, currant, and strawberry can be obtained without any difficulty in most parts of the valley.\textsuperscript{60}

Besides supplementing the food of the local people, as most of what they produced was taken away by the state in the form of land revenue and other exactions, fruits had been put to a number of other uses as well.\textsuperscript{61} The wild varieties and \textit{trel} [variety of apple] were dried to serve as food item during the winter.\textsuperscript{62} However, it is pertinent to mention here that traditionally horticulture was not an organized and well developed industry in Kashmir but was carried on more or less on primitive lines. Manuring and pruning of fruit trees did not exist at all and gardens were simultaneously used as grazing grounds.\textsuperscript{63}

Horticulture in the state of Jammu and Kashmir had started in an organized form in around 1865 when the state government engaged a Frenchman, Monis Ermns, ex-head gardener of the public Parks in Paris, for making wines on a large scale in Kashmir.\textsuperscript{64} Monis Ermns, after preliminary survey, introduced some fruit plants which were planted at Chashma Shahi, Srinagar in 1875. Later, two more French experts in the line, Mons. L. Bouley and A.M. Peychaud, joined the state services. But while their efforts in manufacturing wine on large scale met with little success due to the lack of transportation, they succeeded in producing good fruits of the European type in Kashmir.\textsuperscript{65} Besides, they collected about 25000 wild fruit stocks and planted them at Baghi Sundari near Sopore for grafting and distribution in the state

\textsuperscript{59} Lawrence, op. cit., p. 351.
\textsuperscript{60} Ibid. p. 349.
\textsuperscript{61} Ibid. p. 349.
\textsuperscript{62} Lawrence, op. cit., p. 348.
\textsuperscript{63} Ibid. p. 348.
\textsuperscript{64} Lawence, op. cit., p. 350.
\textsuperscript{65} Ibid. p. 354.
\textsuperscript{66} M. L. Kapoor, op. cit., p. 236.
\textsuperscript{67} Ibid.
orchards thereby, marking the beginning of establishment of nursery which later provided the corner stone for the development of horticulture in the state.\textsuperscript{66} The grafted trees were subsequently distributed from it to the state gardens, among government officials and villagers, and excellent results were obtained of their fruit bearing capabilities.\textsuperscript{67} The fruits were grown for export to Punjab\textsuperscript{68}.

The horticulture sector received further encouragement with the establishment of the Department of Agriculture-sericulture in 1906 which was later on bifurcated into separate Departments of Agriculture and Sericulture.\textsuperscript{69} This measure widened the range of the horticulture work which now included operations such as the establishment of nurseries, plantation of mulberry trees, and cultivation of fruit trees in general and so on.\textsuperscript{70} Different fruit trees from European countries were imported for conducting experiments and extending fruit cultivation in the Kashmir valley. The trees from the newly established nurseries were distributed among cultivators gratis in the beginning and at nominal prices later on. A tree of peach, apricot, almond, walnut, vine, chinari and rose was sold for 12 paisa while as, the trees like apple, pear, plums, cherry and chestnut cost 25 paisa per tree. Despite such measures the number of fruit plant nurseries during the Dogra period was not adequate enough to meet the requirements of the orchardists for plants required for annual replacement of dead and decadent trees in the existing orchards. The survey made by the \textit{Agriculture Department} during 1947-48 whose objective was to determine the number of orchards which were individually 15 acres or more in area and also to study their overall conditions revealed that whilst in some orchards trees were more than optimum in number, also the stocks of existing

\textsuperscript{68} Lawrence, op. cit., p. 350.
\textsuperscript{69} Masoodi, op. cit., p. 195.
Chapter 5

Commercialization of Agriculture

trees and plants were on the whole over 30 percent less than normal stock.\footnote{G. M Bhat, “Fruit Cultivation in Jammu and Kashmir”, in Kashmir Today, 1962, p. 17.} However, since the geography had rendered communications very difficult hence, fruit growing in the state was non-remunerative. It is therefore, no wonder that despite tremendous potential for horticulture in Kashmir the acreage under orchards had been insignificant and the overall contribution of this sector to the state economy during the Dogra period remained marginal and cropping pattern continued to be dominated by food crops. In fact the best horticulturalists during the Dogra rule were the more affluent\footnote{Ibid pp. 350-51.} Lam bardars who took great pride in setting up big orchards with high mud walls and the common peasant remained away from such a practice\footnote{The most popular apple of Kashmir was ambri or ambru. It was large in size, red and white in colour and lasted long. It is worth mentioning here that ambri cultivar of apple is the monopoly of Jammu and Kashmir state and does not thrive on commercial footing in other temperate regions of India. The other ambri varieties grown in Kashmir were mohr ambri, which was similar to ambri but more acidic and redder, and kadu sari, which was juicy, long but with short life. The sweetest of all the ambri fruits was the dud ambri whereas the very refreshing ones were the wild varieties of the fruit like tet shadru and malmu. Smaller apples known as trel also had a great varietal diversity in the state and included khas trel, badshah trel, nabid trel, janbazi trel, sil trel, maz trel, khatoon trel, madkham trel and kakzi trel. However, the three common kinds were, the nabdi trel(yellow in colour), jambri trel(red) and sil trel which was larger than nabadi and jambari trel with deep red colour. Among the all mentioned trels khatooni trel was the superior variety, larger in size but possessing the flavour of smaller kind; Lawrence, op. cit., pp. 349-50.} Moreover, it needs a mention that among all the fruits grown in Kashmir, apple was the most celebrated and excellent fruit. There were about 27 varieties of the fruit [apple] grown during the Dogra rule which markedly differed in colour, size, perish, fragrance and taste.\footnote{Report of the Committee on Economic Reforms for Jammu and Kashmir, op. cit., p. 149.}

The horticulture sector of the state had experienced high growth and expansion after 1947. Though there was no unanimity in the data about the area of land under orchards put forth by different agencies, however, the growing trend had been visible in all the studies. According to the estimates of the Directorate of Horticulture, the area under orchards in the state which was 31,000 acres in 1949-50 quadrupled to 1.40 lakh acres, by 1970-71\footnote{Report of the Committee on Economic Reforms for Jammu and Kashmir, op. cit., p. 149.}.
orchards at 34000 acres in 1972-73. The discrepancy arose as large areas converted into orchards were shown as ‘fallow’ in the revenue records. The Agricultural Census, 1970-71 arrived at the figure of 65,965 acres. The estimates of the Agricultural Census 1985-86 revealed that the total area under orchards had gone up to 1.48 lakh hectares—0.64 lakh under apple, 0.33 lakh under walnuts, 0.17 lakh under almonds, 0.30 lakh under crops like cherry, peach, plum, apricot etc and 0.44 lakhs under mangoes. The discrepancy in the estimated area under fruit cultivation could also have been the result of the practice of mixed cropping going on in the karewas and the side valleys—crops like maize, vegetables, fodder, wheat, and pulses were cultivated along with fruit trees during their gestation period and in some cases even after the gestation period. Thus, it is quite possible that even if area under these crops did not decrease or even remained stable, the area under fruits could have increased. However, notwithstanding the manifold increase in the area under horticulture, the fact remains that area under orchards was far less in comparison to the area under agriculture. During 1998-99, the total area under agriculture was 30.38 percent of area under different land use type, where as land under orchards was only 3.02 percent.

The spurt in the growth of the horticultural activities was caused by a variety of factors. Since the dry land areas purvey tremendous potentiality for cultivation of fruit trees for increasing income levels in contradiction with the then existing system of cropping patterns which did not afford remunerative returns to the farmers, therefore, hill slopes, marginal lands, culturable wastes, pastures, forest lands and some other lands under major crops like maize and paddy were converted into orchards. Also the abolition of the practice of mixed cropping going on in the karewas and the side valleys—crops like maize, vegetables, fodder, wheat, and pulses were cultivated along with fruit trees during their gestation period and in some cases even after the gestation period. Thus, it is quite possible that even if area under these crops did not decrease or even remained stable, the area under fruits could have increased.

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75 Ibid. p. 149.
76 Misri, op. cit., p. 250.
81 Ibid. p. 149.
forcible procurement of food grains paved way for the shift in cropping pattern of the valley, encouraging the cultivator to convert the lands with traditional coarse cereals like wheat, buck wheat and others to commercial crops.

The government of Jammu and Kashmir did not pay much attention to the development of horticulture during the first two Five Year Plan periods. However, serious attempts were made to develop horticulture during the Third Plan and the most important step in this direction was the creation of a separate Horticulture Department. A programme of advancing long term loans to start new orchards was initiated in the year 1961-62 and an amount of Rs, 1433894 was advanced to the farmers for laying new orchards. During 1967-68 the State Horticulture Department in collaboration with the Agricultural Refinance Corporation of India started the ‘Area Development Programme’ under which potential areas other than irrigated belts were brought under fruit culture. Under this programme the Agricultural Refinance Corporation provided 75% of the total share of the loan advanced and the state provided the remaining 25%. It is worth mentioning that most of the farmers

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82 Only steps were taken to assist the gardeners for setting up of orchards on scientific lines and better varieties of fruit plants were distributed in the state. To enable the poor orchardists and farmers to procure their requirements for normalizing the stock of fruit trees and plants in their existing orchards and for making new orchards, the price of fruit plants of all kinds had been fixed as low as four annas [25 paisa] per plant. The price of similar plants in other states ranged between Rs 1/- to Rs 2/- per plant. In 1955 the government launched a scheme namely Fruit Research in Kashmir which aimed at conducting research work in order to make an authentic information available for guidance of the fruit growers from time to time on the relative performance of existing and new commercial varieties of different fruits, the choice of root stocks, the system of training and pruning, the cultural schedule including manuring and fertilizing, thereby, enabling them to increase production of better fruits for existing orchards and to plan future plantation on more scientific and economic basis; see also, Techno-Economic Survey of Jammu and Kashmir, op.cit., p.30.

83 Department of Horticulture was carved out in 1962.

84 Government of Jammu and Kashmir, Mohan Kishen Tiku “Horticulture in Retrospect” in Kashmir Today Vol. 4 , 1973 (Srinagar: Department of Information), 1973, p. 16. The loan was paid at the rate of Rs 300 per acre in the plain areas and at the rate of Rs 500 per acre in the hilly areas. The rate of loan assistance was subsequently revised during the year 1965-66 to a uniform rate of Rs. 1000 per acre irrespective of the consideration of hilly or plain areas.

85 The loan was advanced through the Land Development Banks functioning in the state and an amount of Rs 4662827 was advanced from the year 1967-68 to 1968-69 and area covered was 987 acres. Plant protection machinery and spraying sets were made available free of cost and training schools and demonstration plots were also set up: Government of Jammu
were hesitant to borrow the long term loans which carried interest at the rate 8% with 4 1/2% on deferred payments86 and as a remedy to their cool response towards the scheme, the Central team which visited the state in 1972–73 had suggested the adoption of Maharashtra pattern of sharing the interest burden, where the rate of interest charged was 6 1/2% only. However, even this rate was considered heavy in view of the fact that the state of Jammu and Kashmir was hilly as compared to Maharashtra. It was therefore proposed that the interest liability of the loans be subsidized to encourage the farmers to borrow the loans and extend fruit cultivation.87 Despite such efforts the farmers could not be attracted towards the scheme and the increases in acreages under fruit cultivation during the Fourth Plan (1969-73) were mostly without loan assistance88. This was a healthy sign as the farmers took to fruit cultivation of their own and at their own cost and the motivating factor was certainly the adequate returns from the orchards in comparison to the conventional crops. Moreover, the ban imposed on the utilization of paddy growing lands to crops other than paddy, which was a big hindrance in the way of optimum utilization of such lands, was removed during the 4th Five Year Plan which helped in a big way in bringing areas along hilly-slopes under horticulture with much higher economic advantages to the farmers than they enjoyed hitherto.89 It needs a mention here that the ban was removed despite the fact that it was strongly advocated by the Land Commission Report, 1968, which remarked90:

> Before the methods of increasing production are discussed we should here first like to draw attention to the need of developing our fruit industry. If the tight food position suggests not only the maintenance but also the extension of areas at present under paddy, wheat and maize, other areas available should be put under orchards and every encouragement should

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87 Ibid. p. 55.
89 Fifth Five Year Plan, op. cit., p. 13.
be given to all persons undertaking such ventures. Fruits will not only earn us foreign exchanges, but when the industry is fully developed must certainly ease out food position also to a considerable extent. At present fruit is mostly exported to other parts of the country and even abroad. When produced in large quantities, we may also someday soon see people within the state as well supplementing their food with healthy addition. While we consider the development of fruit industry as very important, we at the same time feel that orchards should in future be raised by as large a number of people as possible and the industry should in no case get concentrated in a few hands. To control such concentration we intend to propose a unit for orchards as well when units are proposed for other lands. In this connection we should not omit to mention suggestions voiced by some sections, that no restrictions be placed on the conversion of even lands under principal food crops, the plea being that orchards yield much higher income than such crops. In view of the grim food situation obtaining in the country, the commission considers any curtailment in areas under principal food crops absolutely suicidal and strongly recommend that such suggestions should not be entertained.

In view of the economic backwardness of the inhabitants of hilly and backward areas of the state which included certain pockets predominantly inhabited by Gujars and Bakerwals a number of schemes Viz. Development of Horticulture in Hilly and Backward areas, Drought prone area programme, Package programme for Dry fruits –walnuts, were launched during the Fifth Plan. Such schemes continued thereafter, and aimed at increasing the area under fruit cultivation with the ultimate objective of improving the economic conditions of the said communities. Under the Development of Horticulture in Hilly and Backward areas programme a number of incentives were provided to the farmer which included: i) 50% subsidy on cost of plant material and cost of fencing material, in respect of walnut plantations ii) 50% subsidy on cost of pesticides for adopting timely plant protection measures iii) and 100% subsidy on carriage of plant material from Departmental fruit plant nurseries to various distribution centres.

To educate the orchardists in the methods of production and adoption of scientific methods of fruit cultivation, fruit-shows and exhibitions were held.

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and prizes were awarded by the Chief Minister to the distinguished orchardists.\textsuperscript{93} During the 4\textsuperscript{th} Five Year Plan, to increase the productivity of fruits, the \textit{Intensive Fruit Production Programme} was launched through which the orchardists were educated and persuaded to attend to the work of fruit cultivation on sound and scientific basis and services of technically trained staff were provided to them.\textsuperscript{94} Out of the total area under orchards in the state, 50,000 acres were taken up under the programme during the 4\textsuperscript{th} Plan and 61,800 acres covered during the 5\textsuperscript{th} plan\textsuperscript{95}. Nevertheless, the Department of Horticulture had been rendering \textit{plant protection services} to the orchardists to control pests and diseases of fruit. Subsidies were provided on pesticides and fungicides to control diseases like apple scab and almond blight –subsidies of the size of 75\% were provided on fungicides and pesticides under the centrally sponsored \textit{Endemic Area Scheme} which was launched in the state in the year 1977-78. It needs a mention that such subsidies remained confined to the demarcated areas, the areas which were severely affected by the disease, and the percentage of subsidy for other areas was merely 25\% thereby making the use of pesticides and fungicides by the farmer a costly process\textsuperscript{96}. Furthermore, even for the orchardists of affected areas the subsidies were withdrawn gradually during the 7\textsuperscript{th} Five Year Plan.\textsuperscript{97}

The combined impact of the programmes launched under different plans was that Production of fruit witnessed big strides after 1947. From 16,000 metric tonnes during 1953-54, the production of fruit in the state rose to 8 lakh metric tonnes at the end of the 7\textsuperscript{th} Five Year Plan.\textsuperscript{98} This tremendous increase in the production of fruits –there was about 60 times increase in the production

\textsuperscript{93} An amount Rs 3310 was awarded as prizes by the chief minister at the state level Exhibition held in October, 1969, \textit{Jammu and Kashmir: On Road to Progress}, op. cit., p. 12.
\textsuperscript{94} Annual Plan, vol. 1: 1979-80, op. cit., p. 36.
\textsuperscript{95} Fifth Five Year Plan, op. cit., p. 55.
\textsuperscript{96} Annual plan, vol. 1: 1979-80, op. cit., p. 38
between 1953-54 and end of 8th Five Year Plan\textsuperscript{99}– however, was predominately on account of horizontal expansion as perceptible improvement in the productivity levels had not been countenanced.\textsuperscript{100} The productivity per hectare in 1953-54 was about 1.25 metric tonnes which rose to about 5.34 metric tonnes per hectare at the end of the year 1985-86\textsuperscript{101}. It is worth mentioning here that the potential per hectare was more than 40-50 metric tonnes. Most of the fruit produced in the state was exported outside the state and only a smaller part of it was consumed locally. The year wise area, production, and export of fruit outside the state are shown in the table 5.2. The table clearly shows that there was a direct proportionality between the area under fruit cultivation and its quantity produced. Moreover, the percentage of the fresh fruit to both total fruit produced and exported outside the state was very high in comparison to the dry fruits, hence reflecting the trend that the horticultural sector of the state was dominated by fresh fruits. The large gap between the fruit produced and exported was, however, not the result of local consumption but due to large percentage of culled fruit which could not be exported, thereby highlighting the importance for setting up of a processing industry in the state.

\textsuperscript{100} Eighth Five Year Plan, op. cit., p. 62.
Table 5.2
Statement Showing the Year-wise Area, Production and Export of Fruit outside the State

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Year</th>
<th>Area [Hectares]</th>
<th>Total Production [LMT]</th>
<th>Total Export [LMT]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Fresh</td>
<td>Dry</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1974-75</td>
<td>59879</td>
<td>22607</td>
<td>82486</td>
</tr>
<tr>
<td>2</td>
<td>1977-78</td>
<td>45162</td>
<td>18580</td>
<td>63742</td>
</tr>
<tr>
<td>3</td>
<td>1978-79</td>
<td>61755</td>
<td>23753</td>
<td>85508</td>
</tr>
<tr>
<td>4</td>
<td>1979-80</td>
<td>71789</td>
<td>32131</td>
<td>103900</td>
</tr>
<tr>
<td>5</td>
<td>1980-81</td>
<td>87943</td>
<td>43065</td>
<td>131008</td>
</tr>
<tr>
<td>6</td>
<td>1981-82</td>
<td>93261</td>
<td>44492</td>
<td>147753</td>
</tr>
<tr>
<td>7</td>
<td>1982-83</td>
<td>97913</td>
<td>48981</td>
<td>146904</td>
</tr>
<tr>
<td>8</td>
<td>1983-84</td>
<td>95701</td>
<td>49343</td>
<td>145044</td>
</tr>
<tr>
<td>9</td>
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<td>95701</td>
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<td>11</td>
<td>1986-87</td>
<td>106713</td>
<td>51287</td>
<td>158000</td>
</tr>
<tr>
<td>12</td>
<td>1987-88</td>
<td>111444</td>
<td>55278</td>
<td>166422</td>
</tr>
<tr>
<td>13</td>
<td>1988-89</td>
<td>112581</td>
<td>57384</td>
<td>169965</td>
</tr>
<tr>
<td>14</td>
<td>1989-90</td>
<td>114906</td>
<td>58833</td>
<td>172929</td>
</tr>
<tr>
<td>15</td>
<td>1990-91</td>
<td>116183</td>
<td>60114</td>
<td>176297</td>
</tr>
<tr>
<td>16</td>
<td>1991-92</td>
<td>117975</td>
<td>61240</td>
<td>180994</td>
</tr>
<tr>
<td>17</td>
<td>1992-93</td>
<td>122489</td>
<td>62132</td>
<td>184621</td>
</tr>
<tr>
<td>18</td>
<td>1993-94</td>
<td>124697</td>
<td>62805</td>
<td>187502</td>
</tr>
<tr>
<td>19</td>
<td>1994-95</td>
<td>127066</td>
<td>64663</td>
<td>191729</td>
</tr>
<tr>
<td>20</td>
<td>1995-96</td>
<td>129691</td>
<td>68776</td>
<td>198467</td>
</tr>
</tbody>
</table>

**Source:** Horticulture production Department Kashmir.

No doubt, in comparison to other states of India the sector witnessed significant growth in terms of expansion, production and productivity during the period but it is pertinent to mention that the fruit industry of the state was dominated by few fruits and had acquired a status of apple industry. Although only 20% of the orchard area during the 7th plan was under apple growing,
almost 87% to 90% of the total produce constituted apple\textsuperscript{102}. The following table 5.3 substantiates the fact that the fruit industry of the state had become apple oriented:

Table 5.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Apple</th>
<th>Pear</th>
<th>Cherry</th>
<th>Almonds</th>
<th>Walnuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>132077</td>
<td>2689</td>
<td>NA</td>
<td>1167</td>
<td>15433</td>
</tr>
<tr>
<td>1971-72</td>
<td>132615</td>
<td>2984</td>
<td>NA</td>
<td>4144</td>
<td>12173</td>
</tr>
<tr>
<td>1972-73</td>
<td>202218</td>
<td>1275</td>
<td>NA</td>
<td>1665</td>
<td>17448</td>
</tr>
<tr>
<td>1973-74</td>
<td>217402</td>
<td>3491</td>
<td>NA</td>
<td>2014</td>
<td>16597</td>
</tr>
<tr>
<td>1974-75</td>
<td>190452</td>
<td>7655</td>
<td>510</td>
<td>1528</td>
<td>10520</td>
</tr>
<tr>
<td>1975-76</td>
<td>348011</td>
<td>953</td>
<td>436</td>
<td>1908</td>
<td>14400</td>
</tr>
<tr>
<td>1976-77</td>
<td>311334</td>
<td>14193</td>
<td>611</td>
<td>756</td>
<td>17935</td>
</tr>
<tr>
<td>1977-78</td>
<td>348266</td>
<td>860</td>
<td>1182</td>
<td>1115</td>
<td>16572</td>
</tr>
<tr>
<td>1978-79</td>
<td>450516</td>
<td>3830</td>
<td>752</td>
<td>1427</td>
<td>18501</td>
</tr>
<tr>
<td>1979-80</td>
<td>462627</td>
<td>2190</td>
<td>907</td>
<td>1745</td>
<td>20531</td>
</tr>
<tr>
<td>1980-81</td>
<td>536300</td>
<td>3200</td>
<td>530</td>
<td>1860</td>
<td>15000</td>
</tr>
<tr>
<td>1981-82</td>
<td>496421</td>
<td>2230</td>
<td>720</td>
<td>4020</td>
<td>16430</td>
</tr>
<tr>
<td>1982-83</td>
<td>431140</td>
<td>6698</td>
<td>1054</td>
<td>1441</td>
<td>16208</td>
</tr>
<tr>
<td>1983-84</td>
<td>619471</td>
<td>2920</td>
<td>1242</td>
<td>969</td>
<td>14660</td>
</tr>
<tr>
<td>1984-85</td>
<td>638671</td>
<td>4488</td>
<td>605</td>
<td>576</td>
<td>20190</td>
</tr>
<tr>
<td>1985-86</td>
<td>760666</td>
<td>5257</td>
<td>569</td>
<td>2590</td>
<td>13491</td>
</tr>
<tr>
<td>1986-87</td>
<td>723826</td>
<td>7775</td>
<td>1679</td>
<td>1925</td>
<td>21489</td>
</tr>
<tr>
<td>1987-88</td>
<td>427063</td>
<td>960</td>
<td>1013</td>
<td>518</td>
<td>10982</td>
</tr>
<tr>
<td>1988-89</td>
<td>658222</td>
<td>15492</td>
<td>4000</td>
<td>4032</td>
<td>36566</td>
</tr>
<tr>
<td>1989-90</td>
<td>644814</td>
<td>21429</td>
<td>3538</td>
<td>4374</td>
<td>43125</td>
</tr>
<tr>
<td>1990-91</td>
<td>622165</td>
<td>16665</td>
<td>40168</td>
<td>2208</td>
<td>38584</td>
</tr>
</tbody>
</table>


The decisive factor responsible for the switch over to apple cultivation was its highly favourable cost-benefit ratio. The net returns per acre [in Rs]

\textsuperscript{102} Ibid. p. 150.
from the principal crops of the valley, worked out by various agencies\(^{103}\) [scholars/Govt.] had shown that apple cultivation gave the highest returns as compared to paddy—Rs 7515.38 per acre as against Rs, 1390 in case of paddy\(^{104}\). It may be mentioned that the net returns vary across the size categories of orchard holdings. The large apple orchards of the size class of 7.5 acres and above yield higher returns in comparison to the marginal and small size classes.\(^{105}\) Moreover, the farmers were reluctant to take walnut and almond crops because of their long gestation periods, about 12 years for walnut and 6-8 years for almonds\(^{106}\). Though the productivity of the apple increased all through the years since 1950s and was highest in India and well in comparison to the world average of 10.82 tonnes, however, in comparison to the countries like Belgium, Austria, Netherlands and Brazil was very less.\(^{107}\) The low productivity level of the apple orchards was the result of the cultivation of apple trees on haphazardous manner and to some extent in an unorganised way. As against the possibility of planting 1000 to 1500 fruit trees through the implementation of appropriate technologies only 150-200 fruit trees were planted in same area. Moreover, the orchards were too old and at least 1/3\(^{rd}\) of the area under apple cultivation was in need of replacement.\(^{108}\) By the end of the 8\(^{th}\) five year plan more than 60% of the total land under apple in Kashmir valley was planted with Delicious variety and 20% with Maharajee variety. The size distribution of the orchards in the state was an important impediment in the way of technological innovation in the cultivation of the crop. Most of the apple produced in the state was exported to many states of India. Of the total production of apple in the state only a small fraction was processed, the

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\(^{103}\) A number of studies had been conducted in the state regarding the Cost-Benefit analysis of different crops by different agencies Viz. Planning Department, Government of Jammu and Kashmir, S.K. University Jammu and Kashmir, and Independent Studies by Bhat and Shahnaz for Paddy and G.M. Bhat and A. S. Bali for apple and Saffron respectively. For details see M.L. Misri, op. cit., p. 297.


\(^{106}\) Ibid. p. 48.

\(^{107}\) Masoodi, op. cit., p. 205.

possible reason being that the other ingredients of the processing industry had to be imported from other states, thereby increasing the manufacturing costs and making it difficult for the products of the industry to compete in the market. In 1961-62, only 0.8% of apple production was used by processors. The export of apple is shown as under:

### Table 5.4
Export of Apple outside the State

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity of apple exported in lakh Qtls.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>43.36</td>
</tr>
<tr>
<td>1984-85</td>
<td>44.71</td>
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<tr>
<td>1985-86</td>
<td>53.25</td>
</tr>
<tr>
<td>1986-87</td>
<td>47.82</td>
</tr>
<tr>
<td>1987-88</td>
<td>32.03</td>
</tr>
<tr>
<td>1988-89</td>
<td>46.00</td>
</tr>
</tbody>
</table>

*Source: Department of Horticulture (Production), Kashmir*

The volume of export from the state was directly related to the production of the fruit, therefore whenever there was a fall in the production of the fruit the exportable quantity decreased. The decrease in the production of the fruit resulted on account of different factors, the main being drought, disease etc. Moreover, since the fruit needed immediate transportation to the markets, the unavailability of transportation also led to the decrease in export magnitude as a considerable quantity of the fruit spoiled for the want of transportation.

By the end of 7th Plan apple constituted almost 87% of the total fruit, and a need was felt to lay stress on cultivation of other fruits as well. Diversification of kinds and varieties of fruits, therefore, formed an important pillar of the strategy evolved for the development of fruit cultivation in the
state during the 8th Plan. The main objectives of the 8th Plan strategy were implemented through a number of development schemes Viz. Expansion of area under new orchards, Production of quality material, Productivity improvement programme etc. Another important component which governed the strategy of horticultural development during the plan was the introduction of Zonalisation concept which aimed at encouraging the cultivation of most suited fruit crops in a particular agro-climatic zone\textsuperscript{109}.

Despite the progress of horticulture sector on production front, the weak links were those of marketing and processing. Though the growers of the state marketed their produce through various channels, most of the small growers sold their produce to pre-harvest contractors, yet the fruit market was dominated by forwarding or commission agents at Delhi operating through their agencies in Srinagar\textsuperscript{110}. The agency of middlemen had grown very strong as the agents provided finance to the local growers and arranged marketing of their produce. The dependence of the marginal and small orchardists on pre-harvest contractors and commission agents reduced the marketing margins considerably. Moreover, taking advantage of the ignorance of the small and marginalized growers the agents exploited them by taking a lion’s share out of the returns. Inquires had shown that an apple grower got anything between 25 to 50 paisa per Kg of fruit against Rs 4 which the consumer had paid for it.\textsuperscript{111} Besides, the transportation of fruit, particularly perishable fruit, had its own problems as the cost of transportation was quite exorbitant because of the large distance of the state from the markets.\textsuperscript{112} Also the State Transport Policy upto 1970s which was based on the loading and unloading of fruit boxes en-route acted as important bottlenecks in the marketing of the fruit. In 1970’s with the increase in the demand for the fruit of Kashmir the state government took certain measures which aimed at making horticulture a remunerative occupation for the growers of the state. The state policy of transportation was

\textsuperscript{109} Eighth Five Year Plan, op. cit., p. 64.
\textsuperscript{111} National Herald, Dated: 12 October, 1976.
reoriented to meet the needs of fruit exporters. The multi-route system was abolished within the state and single route system introduced to avoid transhipment within the state.\textsuperscript{113} To avoid transhipment anywhere the state entered into zonal agreement with the northern Indian states under which state carriers could reach any spot in these states.\textsuperscript{114} Despite such efforts the lack of adequate transportation continued to be a problem with the fruit industry of the state and the fruit growers and dealers losing around Rs 13 crore during 1975\textsuperscript{115}. However, the most important step taken by the state to attend to the problem of low returns to growers, export of poor quality of fruit, non-availability of transport during peak season, shortage of packing material and monopolistic role of commission agents and traders was the establishment of a separate ‘Department of Horticulture, Planning and Marketing’ in the year 1972.\textsuperscript{116} The main objective of the department was to increase the returns to the growers by improving marketing facilities and reducing marketing costs. Notwithstanding the fact that the department launched a number of programmes to organize orchardists into cooperative marketing societies\textsuperscript{117}, introduce standardisation in fruit trade, organize the growers for getting their problems solved and collect and disseminate market information,\textsuperscript{118} but the influence of the forwarding or commission agents could not be removed to any considerable extent. The possible reason being that the growers had to complete almost no formality while getting financed by the commission agent whereas, the finance through banks happened to a cumbersome process.

Highlighting the importance of marketing for the development of horticulture sector the Development Review Committee (1977) while

\textsuperscript{113} Tribune, Dated: 16-5-72.
\textsuperscript{114} Ibid.
\textsuperscript{115} Hindustan Standard, Dated: 5 Dec. 1975.
\textsuperscript{117} Upto 1979-80, the department had organized 79 fruit growers’ cooperative marketing and processing societies with membership of 7000 growers. Kashmir Today, June 1980, Vol. V No.1
\textsuperscript{118} Annual plan 1979-80, op. cit., pp. 44-45
appreciating the establishment of the ‘Horticulture, Marketing and Planning Department’ emphasised:¹⁹

an efficient strategy for the marketing of fruit has to look after marketing facilities at terminal markets, marketing intelligence and information system, a fruit market at Jammu with requisite storage and refrigeration facilities for sale and despatch of produce direct to the terminal markets bypassing the middlemen of Delhi market, disciplining the trade practices of the local fruit merchants, strengthening the fruit cooperative marketing societies, procurement of fruit by the government directly or through a public sector undertaking, developing fruit processing industry, evolving cheaper and lighter packing material, refrigerated transport of soft fruit, direct haulage of fruit from orchards to consumer centres, Rail haulage for long distances, export of processed fruit and grading of fruit and its regulation by the government.

During the 6th Five Year Plan eleven new markets other than Delhi and Amritsar had been identified and area marketing organizations were established in these towns for providing market information/intelligence and for supervising sale of Kashmiri fruits. For grading and packing about 2,000 graders and packers were trained by the department for helping growers in scientific packing.²⁰ The development strategy during the 7th Five Year Plan focused primarily on the need of on-farm storage facilities for orderly marketing of fruits, non-exploitative structure for arranging credit and providing an alternate channel of marketing of horticultural produce, the establishment of new markets to divert the fruits away from Delhi traditional market.²¹

Notwithstanding the significant contribution of the Departments of ‘Horticulture’ and ‘Horticultural planning and Marketing’ in providing support to the orchardists through various programmes related to cultivation, pre-harvest practices and market information related to different fruits in various parts of India, the horticulture development in the state at the end of the 1990

²⁰ Government of Jammu and Kashmir, Sixth Five Year Plan, Chapter- Horticulture
²¹ Government of Jammu and Kashmir, Seventh Five Year Plan, 1885-90, Planning and Development Department, pp. 33-34.
was characterised by low productivity due to lack of good quality of planting material, low density un-scientific management of the orchards, lack of marketing facilities closer to the area of production, inadequacy of post harvest management technology and lack of irrigation facilities.\(^\text{122}\) Besides, integrated approach to the cultivation and marketing of fruits was lacking all through the time.\(^\text{123}\) Although Kashmir produced some of the best fresh fruits of the world especially apples, peaches, plums, cherries, strawberry etc there was hardly any export of these fruits outside India.\(^\text{124}\) The main problems in this regard were: lack of appropriate grading, packing, storage facilities etc.\(^\text{125}\) The benefits of subsidies provided through different programmes were largely availed by non-target groups and the interests of the marginal and small growers which constituted some 97% of the fruit growers remained almost unprotected.\(^\text{126}\)

Saffron cultivation was known in Kashmir from ancient times and the earliest evidence comes from 6th century A.D. This most celebrated crop of Kashmir known locally as Kong, Saffron in Arabic and Kasharo in Sanskrit had been a praised commodity in Kashmir since the very early times. Kalhana counted saffron among the five rarest things of Kashmir. Others were icy water, learning, lofty houses, and grapes.\(^\text{127}\) Saffron was the only cash crop in the pre-modern times and formed an important item of export in Kashmir’s foreign trade.\(^\text{128}\)

Notwithstanding that the valley’s geo-ecological conditions were conducive for Saffron cultivation;\(^\text{129}\) however, the crop did not practically

\(^{122}\) Eighth Five Year Plan, op. cit., p. 63.
\(^{124}\) Ibid. p. 153.
\(^{125}\) Ibid. pp. 152-53.
\(^{126}\) Ibid. p.154.
\(^{127}\) Rajatarangni (trans), M.A. Stein, Vol.1, p. 42
\(^{128}\) Kashmir exported saffron to Agra and other parts of India, entering into competition at Patna with the saffron brought from Nepal; Irfan Habib, The Agrarian System of Mughal India, 1556-1707, second, revised edition (New Delhi: Oxford University Press, 1999), P. 80.
\(^{129}\) A series of experimental studies had revealed that about 66 per cent of the cultivated area of the valley offered quite suitable location for its ideal growth; where as 25 % of the cultivated area could be brought under saffron cultivation with the help of the new technological diffusion. Only nine per cent of the area was found not suitable for its
spread beyond the karewas of pampore. The novice experiment of the Sultans to cultivate it on Dever vider [karewa] failed after some time. Consequently the acreage under saffron had always been limited -10,000 to 12,000 bighas during Akbar’s reign, three miles or 4527 acres during 19th century.130

There were certain inherent causes that prevented the common peasantry to resort to saffron cultivation. Saffron cultivation was in fact a state monopoly and fetched a vast proportion of revenue to the state exchequer. The cultivation was carried more or less by forced labour. Moreover, the important cause which restricted the cultivation of the crop to Pampore uder was its immunity from rats which dwell in beds and feed upon the sweet and juicy bulbs. This does not mean that the soil of Pampore Karewas was different from other karewas and therefore, un-vulnerable to rodents. However, it had important plus points. The whole patch of land was cropped by saffron only. There was no house, no tree, no other crop and no other acclivities and therefore, it provided no shelter for rats.

Saffron cultivation after 1960’s was diffused in several non-traditional areas outside Pampore131. There was a significant increase in the area under the crop, its production and productivity. The area under the crop increased from 2965 acres in 1968 to 4466 hectares in 1995 which was about 1.17 per cent of the gross cropped area and about 4.5 percent of the area under commercial crops132. The production of the crop increased from 43.57 quintals in 1968 to 136 quintals in 1995 whereas the yield increased from 1.47 kg/acre to 3.10kg/hectare133. The crop was highly remunerative– the net returns per acre from saffron cultivation had been estimated to be Rs 8105.32 in 1982 which was about ten times more

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130 Ain-i-Akbari, (trans) Blochmann, op. cit., pp. 89-90. Many attempts were made during the reign of Maharaja Gulab Singh to extend the cultivation of saffron but none of the soils except those of pampore responded to the experiment. In 1871 the total saffron produced amounted to 200 Kharwars, Hangloo, op. cit., p.26
131 Majid Hussain, op. cit., 151.
132 Mir, op. cit., p. 152.
133 Mir op. cit., p. 10; Majid Hussain, op. cit., p. 153.
remunerative than paddy cultivation, about seven times more remunerative than oil seeds and three times more remunerative than apple- and played fundamental role in the socio-economic transformation of the saffron growing villages. However, although the crop offered extraordinary opportunities of progress for the region but its cultivation was limited and hindered not due to natural factors but mainly due to socio-economic and institutional factors. Illiteracy hindered the adoption of modern agricultural technology and no efforts were made to replace the traditional/oldest varieties of seeds with high yielding varieties, thereby making the grower to believe in the superstitious notions hence limiting its extension. Economic set-up played an important role in the limited extension of the crop because the crop was peculiar and almost whole of the input expenditure was required at once, at the time of sowing of the seeds which the small and marginal farmers could not meet. Also there were misconceptions regarding the use of manures and fertilizers leading to the damage to the crop.

Moreover, Saffron marketing in the state was highly un-organised. It was largely in the hands of middlemen and their firms. The intermediaries purchased the saffron from the growers who were generally poor and not in a position to dictate terms in fixation of prices of their produce. The middlemen and the big firms knew the real position of the commodity in the national and international markets. The sum margin of the commission of different middlemen resulted into a low profit for the growers.