



A study on Apple production and its employment opportunities provided by it in Kashmir Himalaya

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Abstract: Kashmir is often referred to as the “Apple Bowl of India” due to its significant contribution to apple production. Apples from Kashmir are known for their taste, texture, and high quality, making them a crucial part of the region’s economy. The marketing of apples plays a vital role in ensuring profitability, sustainability, and global competitiveness in the industry. Apples are most widely planted and are commercially the most important fruit crop. The cultivation of apple crop in Jammu and Kashmir shows particular interest for a number of reasons. In terms of both area and production, apple is very beneficial fruit crop. Horticultural sector contributes around 5000 crores to the annual income of the state of Jammu and Kashmir. Among the horticultural crops in the state apple occupies the predominant position constituting around 45 per cent of the total area under fruit crops. Apple is an extremely important source of nutritive diet; this provides a major source of income and employment in Jammu and Kashmir. This study explores how apples from Kashmir are marketed, and the opportunities for employment provided by it.

Key words: Apple Bowl of India, sustainability, and global competitiveness etc

1. INTRODUCTION

The Apple (*Pyrus domestica*) is one of principal fruits, grown in temperate region of the world. It has beautiful and colourful appearance, crispy flesh, pleasant flavour and sweet taste that attract the consumers and fetch good price. Jammu & Kashmir is home to some world famous varieties of fruits, dry fruits, honey and saffron. Horticulture is one of the most vibrant sectors for the state economy. Horticulture is the backbone of Jammu Kashmir’s economy with a yearly turnover of Rs.1200 Crores. According to the state's horticulture department, around 1.5 million tons of apples are produced in Kashmir annually. Jammu and Kashmir is the major producer of apple and in India, 77 percent of apple production in India belongs to Jammu and Kashmir and percentage share of state in India’s total production is showing an increasing trend and the state has been declared as the “Agri. Export zone for Apples. Apple is one of the most widely cultivated tree fruits. Apple cultivation is highly profitable economic activity in the state. Apple production plays an important role in improving the standard of living, per capita income and employment generation. More than half percentage of the population is engaged in the cultivation of apple directly or indirectly in the state. Kashmir apple has lived up to its reputation for being one of the choicest –fruits, Kashmir has long been considered the home of apples. Hundreds and ten varieties of apple are found in Jammu and Kashmir. The chief varieties being Delicious, American, Ambri, Moharaji, Kesri, Hazaratbali. However Ambri or Amri is the most popular and large round red and white sweet

fruit, ripening in October and keeping its conditions for a long time. This variety attracts maximum consumers' attraction due to its sweetness and handsome appearance. The production of apple in the state is confined to six districts of the valley viz, Anantnag, Baramullah, Budgam, Pulwama, Kupwara and Srinagar. However in Jammu division apple cultivation is found in a limited scale in Doda district only. In two districts of the valley namely Baramullah and Kupwara, the apple cultivation is found on a large scale as these have suitable land for temperate fruits. Apple being state's main fruit has predominant position both in area under plantation and production. Apart from its profitability criteria the corporation will bring the horticulture industry of Jammu and Kashmir to an appreciable standard by the introduction of latest technological devices. This would provide export outlets for the quality fruits of Kashmir besides making them available to the local consumers in rest of the country. This step would revolutionize the economic condition of the thousands of growers who in effected form the backbone of industry.

2. Apple Production in Kashmir

The state has the largest potential for production of quality temperate horticulture crops. It has created niche production of apple, pear, cherry and dry fruits. Among temperature fruits apple ranks first position in terms of production and productivity. The annual production of apple in the state is about 9.09 lack ton at an average yield of 10.09 ton per hectare. However the production & productivity of apple crop has been fluctuating during 2015-16 to 2020-24, due to drought or some other climatic conditions. In spite of this apple production and productivity increased during the year 2015-2020 and 2020-2024 and marked highest as 11.86 and 15.13 Metric ton per hectare respectively. But it slightly decreases thereafter due to climatic conditions and untimely rains and followed by flood in some areas of the state. Marking a good sign for its horticulture sector, the area under apple crop in J & k has increased. "It contributes more than Rs 6000 crore towards the state economy and is considered to be backbone of our economy. Increase in production and area under apple crop is an encouraging sign.

3. MARKETING OF APPLE PRODUCTION IN JAMMU AND KASHMIR

Marketing is a comprehensive function. it is concerned with every aspect of produce from its inception, design, pricing, distribution, setting and promotion until it finally reaches the hands of the consumer. In another way, Marketing connotes a series of activities involved in moving the goods from the point of production to the point of consumption. It includes all activities involved in the creation of time, place, form and possession utility. Phillip Kotlar has defined marketing as a human activity directed at satisfying the needs and wants through exchange process. American Marketing Association defined marketing as the performance of business activities that directs the flow of goods and services from producers to users. Marketing activity in fact begins with espousal of appropriate technology at the farm level and ends at the final consumption level. Apple dominates the horticulture produce of Kashmir in both area as well as production, but is of perishable nature. The perishable nature of commodities attributes to seasonal gluts and off-seasonal scarcity. More or less this is the case with all agriculture produce. Therefore, due to the reason, marketing of the Kashmir apple is a complex process. It needs a ready market which is not possible in small towns around the area it is produced. But this fruit finds better markets in big cities. The consumers at these places have high income elasticity in terms of demand for apples. Delhi is the biggest and most suitable market for apple where loaded trucks remain unattended for several days due to very heavy arrivals during the peak marketing months.

Supply Chain of Apple Marketing in Kashmir

The apple marketing process in Kashmir follows these key steps:

Step 1: Orchard Cultivation & Harvesting

- Apples are harvested between **August and November**, depending on the variety.
- Farmers adopt **traditional and modern techniques** to improve yield and quality.

Step 2: Post-Harvest Processing

- Apples are **graded and sorted** based on size, color, and quality.
- **Cold storage facilities** in districts like Sopore and Lassipora (Pulwama) help maintain freshness.

Step 3: Distribution Channels

1. Traditional Mandis (Wholesale Markets):

- Asia's second-largest fruit mandi in Sopore plays a key role in apple trade.
- Other mandis in Shopian, Baramulla, and Delhi's Azadpur Mandi.

2. Retail Chains and Supermarkets:

- Kashmir apples are supplied to **Reliance Fresh, Big Bazaar, and Spencer's** in metro cities.

3. Direct Export & Online Platforms:

- Apples are **exported to UAE, Saudi Arabia, Bangladesh, and Nepal.**
- **Online marketing** through e-commerce platforms like **Amazon, Flipkart, and J&K Agro Industries** is growing.

Step 4: Packaging and Branding

- Modern **corrugated boxes and eco-friendly packaging** are used to ensure apples reach markets in fresh condition.
- Government is promoting **GI-tagged Kashmiri apples** for branding.

4. Marketing Strategies for Kashmiri Apples

4.1 Traditional Marketing Methods

1. **Auction System:** Apples are sold in wholesale markets through live auctions.
2. **Commission Agents & Middlemen:** Traders and middlemen connect farmers with retailers.
3. **Government Procurement:** The National Agricultural Cooperative Marketing Federation of India (NAFED) procures apples to stabilize market prices.

4.2 Modern Marketing Approaches

1. Branding & Packaging Innovation:

- Introduction of **organic certification** to attract premium buyers.
- Unique packaging with **QR codes** to trace authenticity.

2. Digital & E-Commerce Marketing:

- Farmers and traders are using platforms like **AgriBazaar, KisanMandi, and Amazon Fresh.**
- **Social Media Marketing (Facebook, Instagram, WhatsApp Business)** to reach direct consumers.

3. Export Promotion & International Marketing:

- **Participation in International Food Exhibitions** (like Gulf Food Dubai) to expand global reach.
- Tie-ups with **export companies** to enter **European and Middle Eastern markets.**

4. Cooperative Marketing & Farmer Producer Organizations (FPOs):

- **Horticulture-based FPOs** are being developed to help farmers market their apples collectively.
- **Example:** Shopian Apple Farmers FPO working on direct selling.

5. Employment in the Apple Industry

The apple industry in Kashmir employs **nearly 3.5 million people**, directly and indirectly. The employment sectors include:

5.1 Direct Employment

These are jobs directly linked to apple cultivation and production.

1. Orchard Farmers & Landowners

- Kashmir has about **3.37 lakh hectares** of land under apple cultivation.
- Thousands of **small, medium, and large farmers** depend on apple orchards as their primary source of income.

2. Farm Laborers & Seasonal Workers

- Apple cultivation requires **manual labor for plowing, pruning, spraying pesticides, and irrigation.**

- Harvesting season (August-November) employs **over 1 million seasonal workers**, many of whom migrate from other states (e.g., Bihar, Uttar Pradesh, and Nepal).

3. Horticulturists & Agricultural Experts

- Experts in **disease control, soil management, and organic farming** help improve apple production.
- Agricultural universities and research centers provide employment in **horticulture research**.

5.2 Indirect Employment

These jobs are connected to the processing, transportation, and sale of apples.

1. Fruit Traders & Commission Agents

- Hundreds of traders operate in **wholesale mandis**, especially in Sopore, Shopian, and Baramulla.
- Commission agents act as middlemen between farmers and buyers in markets like **Delhi's Azadpur Mandi**.

2. Packaging & Cold Storage Workers

- Workers are employed in **packaging units** where apples are sorted, graded, and packed into boxes.
- Cold storage facilities like **Lassipora Cold Storage in Pulwama** employ thousands to maintain the apple supply chain.

3. Transport & Logistics Workers

- Drivers, loading workers, and logistics coordinators transport apples across India and abroad.
- Apple transportation creates jobs for **truck drivers, railway freight handlers, and port workers**.

4. Retailers & Exporters

- Kashmiri apples are sold in **supermarkets, fruit shops, and online stores**.
- Export companies hire professionals in **branding, marketing, and international trade**.

5. Processing & Food Industry Jobs

- Apple-based industries like **juice, jam, and dried apple processing plants** provide employment.
- Examples: Kashmir Apple Juice factories and **HPMC juice factories in Himachal**.

5.4 Economic Impact of the Apple Industry on Employment

- The apple industry contributes **8% to Jammu & Kashmir's Gross Domestic Product (GDP)**.
- The **Sopore Fruit Mandi**, the second-largest in Asia, generates **thousands of jobs** for traders and workers.
- Improved infrastructure, like **Controlled Atmosphere (CA) storage units**, is expected to create **more stable jobs**.

6. CONCLUSION

Apple is one of the most widely cultivated tree fruits. Apple cultivation is highly profitable economic activity in the state, which is famous for its quality apple. It is farm based labor intensive and commercially attractive economic activity. The income per acre is much higher than any other horticulture crops, if it is done in systematic way. Apple production plays an important role in improving the standard of living, per capita income and employment generation. More than half percentage of the population is engaged in the cultivation of apple directly or indirectly in the state. Apple being state's main fruit has predominant position both in area under plantation and production. Apart from its profitability criteria the corporation will bring the horticulture industry of Jammu and Kashmir to an appreciable standard by the introduction of latest technological devices. This would provide export outlets for the quality fruits of Kashmir besides making them available to the local consumers in rest of the country. This step would revolutionize the economic condition of the thousands of growers who in effected form the backbone of industry. During the year 2004-05 the production was worth 1093.33(000) metric tons. The production marked highest growth during 2011-12 worth 2581.18(000) metric tons. But the production decreased during 2012-13 because of untimely rainfalls in the state. The overall

production of apple for the year 2013-14 and 2014-15 was worth 1633.35(000) MTs 1170(000) MTs respectively. In spite of this apple production and productivity increased during the year 2010-11 and 2011-12 and marked highest as 11.86 and 15.13 Metric ton per hectare respectively. But it slightly decreases thereafter due to climatic conditions and untimely rains and followed by flood in some areas of the state. The production increases in 2015-16 to some extent as compared to previous year. But it decreases in 2016-17 due to unrest in parts of Kashmir valley.

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