

MAPPING OF TOBACCO VALUE CHAIN: SCOPE AND OPPORTUNITIES

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Flue Cured Virginia (FCV) tobacco, a significant commercial crop, plays a vital role in the Indian economy by providing employment, livelihood security, contributing agri-exports, and foreign exchange earnings. In this study, the value chain model for Indian FCV tobacco is identified. The objective of this study is to examine, comprehend, and map the value chain and its essential roles in the system. There are several production and processing steps in the input-output structure of the FCV tobacco value chain, and these typically take place in several geographical regions. The supply of inputs, farm production, harvesting and curing, post-harvest processing, marketing, manufacturing, and domestic commerce and exports are the seven essential components of the tobacco value chain. While traders and national and international businesses often operate in the highest-value sectors of the value chain, the key stakeholders, the farmers, are located in a low-value segment. When the value of all the operations throughout the value chain is added together, it becomes clear that the manufacturers, exporters, and processors are the ones that benefit the most from the tobacco sector. As a result, there is a great need to include growers in the value chain and look at ways to strengthen the FCV tobacco value chain in order to raise income levels of all the stakeholders involved.

INTRODUCTION

In recent years, the value chain system in commercial crops is gaining momentum, especially in the context of enhancing the income of players in the value chain. The value chain consists of different stakeholders and their collective actions including input and support services for the production, marketing, and distribution of the product until it reaches the final consumer under enabling environment. Theoretically, it is a full range of activities required to bring a product or

service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use as given by Kaplinsky and Morris (2000) though it was pioneered by Michael Porter (1985) in his book on 'Competitive Advantage: Creating and Sustaining Superior Performance'.

FCV tobacco, a commercial crop plays an important role in the Indian economy in terms of higher farm income, livelihood security and foreign exchange earning to the national exchequer. It is grown on 1.39 lakh hectares, primarily in the states of Andhra Pradesh and Karnataka, with a production of 201 million kg during 2020-21, which accounts for 30% of total tobacco production in the country.

Value Chain Analysis of FCV Tobacco in India

An economic unit of analysis of a particular commodity (FCV tobacco) or a group of related commodities (spices) that embraces a meaningful grouping of economic activities that are connected vertically by market relationships. Further, the importance is on the relationship between networks of input suppliers, producers, traders, processors, and distributors under enabling environments like R&D institutions, policies, etc. Typically, it includes the linkage between input supply, production, harvesting, transport, storage, processing, wholesaling, retailing, and utilization, with exportation included as a major stage for products destined for international markets. Therefore, the value chain includes different components, which are mutually inclusive of each other.

Key words: Core functions, Exports, India, Mapping, FVC Tobacco, Value chain

A value chain describes a range of value-adding activities required to bring a product from its conception to the final consumer (Makoka, 2009; Kaplinsky, 2000; McCormick and Schmitz, 2001). The value chains for most agricultural commodities, including tobacco, are globalized since the chains of value-adding activities are undertaken by different enterprises located in different parts of the world. For example, tobacco that is grown in India could be processed into snuff, cigars, and cigarettes in Belgium and consumed in America. Therefore, the value chain map for Indian FCV tobacco should identify all the different actors involved throughout the value chain.

The value chain provides a key insight into how a product is transformed, grown, or manufactured when inputs and services are fused. It also reveals the physical movement of a product from the producer to the consumer and how each separate movement adds value to the product. The FCV tobacco sector, a subset of commercial agriculture in India, is regulated by the Tobacco Board through a production policy on crop size fixation annually in consonance with domestic and export demand. In India, the policy-led approach implemented to regulate the crop size in FCV tobacco in Andhra Pradesh was materialized as one of the potential instruments to foster the

transition from tobacco to other sustainable crops, which was witnessed in tobacco-growing regions of Andhra Pradesh in the recent past (Reddy et al., 2017).

With the appropriate understanding of the value chain, the policymakers can begin to understand the incentives for production, contracting or auction marketing, processing, and exporting, as well as the incentives for improvement in each stage can be possible to strengthen the existing FCV tobacco value chain in India. It is therefore imperative for this study to assess the importance of the FCV tobacco value chain in India to identify the scope and opportunities for further improvement of the value chain in the country.

Mapping of FCV Tobacco Value Chain in India

Value chain mapping was done to gain a basic overview of the FCV tobacco value chain in India. The study identified the key services directly relating to the production of FCV tobacco. They are input supply, crop production, curing, processing, marketing, manufacturing, and exports. There are key stakeholders and their linkages in the value chain are presented in Figure-1. Further, the mapping of the FCV tobacco value chain has identified the core process and

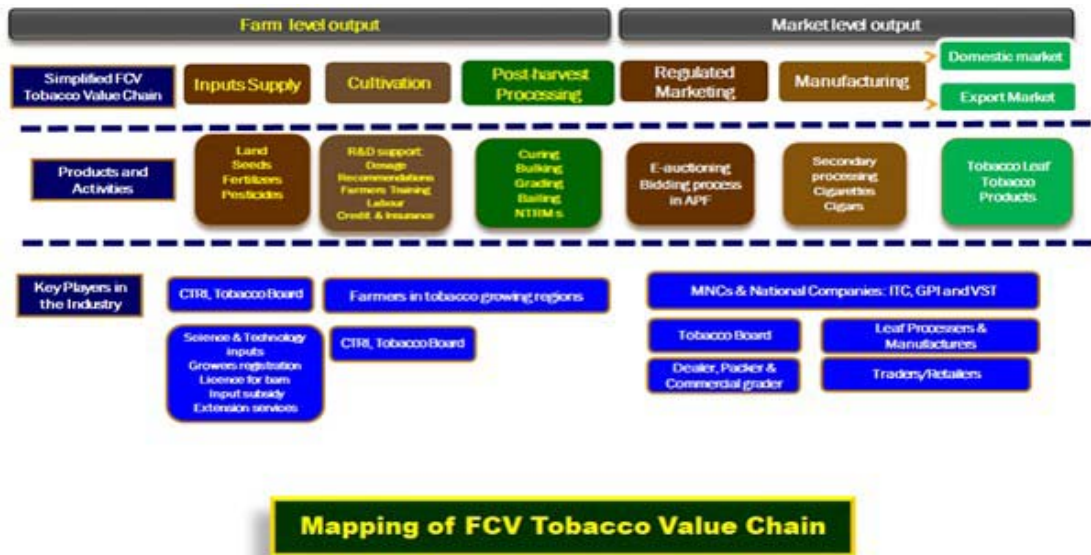


Figure 1: Mapping of FCV tobacco Value Chain in India

functions of core actors. The FCV tobacco value chain is composed of seven key functions. These are input supply, farm production, harvesting and curing, post-harvest processing, manufacturing, domestic marketing, and exporting.

The input-output structure of the FCV tobacco value chain has multiple stages of production and processing, which typically occur in different geographic locations. The tobacco growers are situated in a low-value segment of the FCV tobacco, while traders and national and multinational companies typically operate in the highest-value segments of the chain (processing, manufacturing, and exports).

Support Services in the value chain

The support services that play an ancillary role to enhance the operation of the different stages in the value chain in FCV tobacco in India are furnished below.

- Infrastructural services (ICT-enabled technology, market, roads, and transportation)
- Production services (input supply, crop varieties and agro-technologies from research, farm machinery services, and supply,

extension services, in-season contingency advisories)

- Marketing and business skills (market information, intelligence, brand creation, trade delegation)
- Financial services (subsidy, credit, loans, crop insurance)
- Policy and regulatory services (crop size fixation, market reforms, e-auctions, trade regulations, penalties for excess production, barn licensing, etc.)

Marketing system of FCV tobacco in India

In India, the FCV tobacco value chain has a single marketing system consisting of the e-auctioning arrangement in the well-established network of auction platforms. Currently, there are 17 auction platforms in Andhra Pradesh and 11 auction platforms in Karnataka for the e-auctioning of FCV tobacco. To add value, increase marketing efficiency, bring greater transparency, and eliminate manual errors, Board introduced the information technology-driven fool proof technology in the year 2012 to auction FCV tobacco. The main objective of e-auctioning is to ensure fair and remunerative prices to the growers

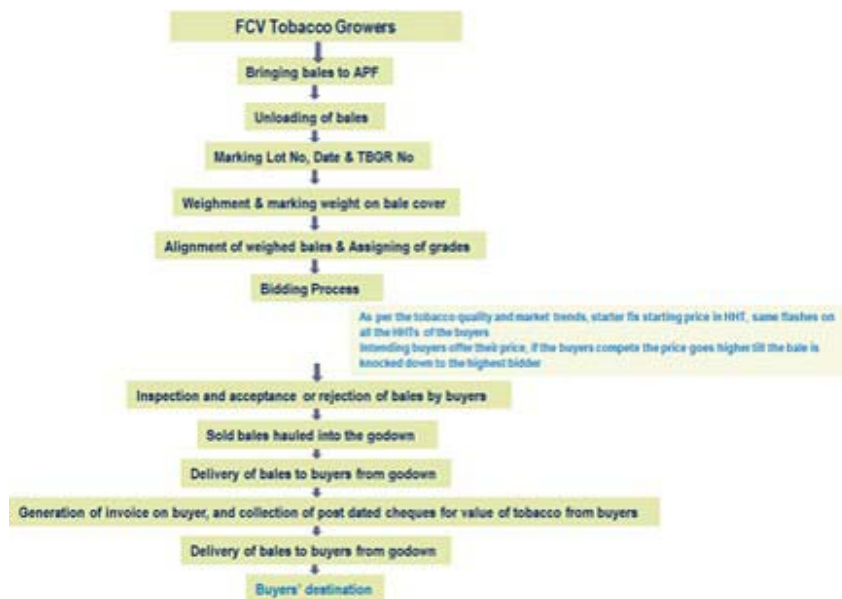


Figure 2: Flow-Map of Electronic Auction Process in FCV Tobacco Marketing in India

by creating an element of competition among the buyers, to ensure prompt payment to the growers.

Flow-Map of Electronic Auction Process in FCV Tobacco Marketing in India

This system provides greater transparency in the bidding process and facilitates growers to view the bidding process through electronic displays.

Price realized by the FCV Tobacco growers during e-auction system in India

The prices of FCV tobacco has significantly increased from Rs 114/kg to Rs 176/kg in Andhra Pradesh and Rs 116/kg to Rs 163/kg in Karnataka during the last decade. This is mainly due to growing demand for Indian tobacco in the global markets and reduced supply from competing countries. This is a stimulating factor for the growers to continue with the FCV tobacco cultivation in India.

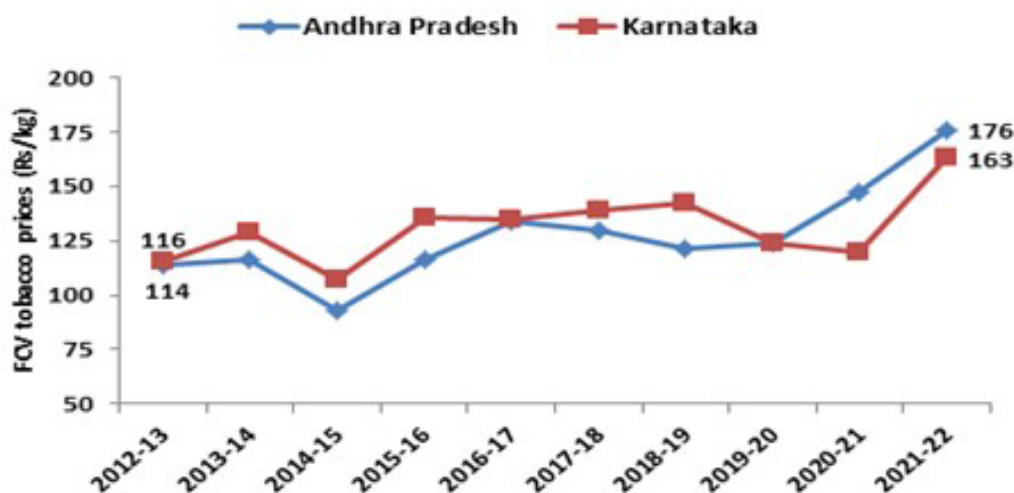
Exports Segment of Value Chain

India produces different styles of FCV tobacco, which vary in their physical and chemical characteristics. Indian tobacco is exported to over 123 countries across the globe. India has a fairly

diversified base of production for exports and provides a one-stop shop for different styles, qualities, and price ranges.

Major export destinations of unmanufactured tobacco by value and price

Globally, India is the only country which produces tobacco in two seasons and it is a net exporter of FCV tobacco. Belgium is India's FCV tobacco major export destination, 25% of the FCV production worth Rs.43, 599 tons was exported to Belgium at a price of Rs.264 per kilogram. Egypt and UAE are other important FCV tobacco markets accounting for 7.6% and 7% of exports respectively. The countries with low export share are fetching high export prices such as Poland, Indonesia, Nepal and Korea. However, it is observed that compared to the average price of grower Rs.135/kg in 2020-21, the export price of tobacco is very high. This indicates that after processing raw FCV tobacco, processors can export semi-processed FCV tobacco at a value significantly higher (nearly two-fold in some countries-Belgium, Poland, and Indonesia) than the price offered to growers in India. A summation of the value of the processes across the value chain indicates that the major share of tobacco industry value lies with the traders (processors,



Source: Tobacco Board, 2022

Figure 3: Price trends in FCV tobacco in Andhra Pradesh and Karnataka (2012-2021)

Table 1: Country-wise export of unmanufactured tobacco by value and price

| Destination | Quantity (Tons) | Value (Rs. Cr) | Price (Rs./kg) |
|--------------------------------------------|-----------------|----------------|----------------|
| Belgium | 43599 | 1149 | 264 |
| Egypt | 16173 | 234 | 145 |
| UAE | 14798 | 250 | 169 |
| Yemen | 7748 | 105 | 136 |
| Belarus | 7070 | 133 | 188 |
| Korea RP | 6503 | 168 | 258 |
| Philippines | 6301 | 103 | 163 |
| Indonesia | 6008 | 158 | 263 |
| Poland | 5346 | 154 | 288 |
| Nepal | 5161 | 133 | 258 |
| Avg. price realized by the grower in India | | | 135 |

Source: Tobacco Board, 2022

manufacturers, and exporters) who tap the maximum profits along the chain.

Scope of Tobacco Value Chain: FCV tobacco is an integral part of agricultural exports as well as a livelihood for millions of people in the poorest regions of the country. It is one of the most important commercial crops with high export demand, especially in European countries. This crop is regulated, and cultivated under government intervention. Therefore, strengthening the existing value chain in FCV tobacco has tremendous scope and opportunities for augmenting crop productivity, exports, and farmers' income.

Opportunities for Strengthening FCV Tobacco Value Chain

- R&D support and technological interventions
- Varietal diversity for different FCV tobacco production domains
- FCV Tobacco production and marketing regulation by Tobacco Board
- Strong base of Institutional support which not available for other crops
- Standard protocols for management handling cured leaf (bulking, grading, baling techniques)

- Well-established network of auction platforms and e-auction system
- Consistent and stable prices to the growers
- India is globally reputed and reliable source of FVC tobacco for international market
- Good Agricultural Practices (GAPs)
- Modern extension strategies to disseminate technological interventions

This study tries to identify the prevailing model of the value chain in Indian FCV tobacco. The mapping of the FCV tobacco value chain has depicted multiple stages of production and processing, which typically occur in different geographic locations, the value chain is composed of several key functions. However, the primary stakeholders, the farmers are situated in a low-value segment, while traders and national and multinational companies typically operate in the highest-value segments of the value chain. A summation of the value of the processes across the value chain indicates that the major share of tobacco industry value lies with the processors, manufacturers, and exporters who tap the maximum gain along the chain. Thus, there is an immense need to integrate growers in the value chain and explore the opportunities to strengthen FCV tobacco value chain to enhance the income levels of the various stakeholders. The above value chain mapping helps to prioritize research at

different stages to consolidate the value chain in the context of augmenting exports and income of FCV tobacco farmers in India.

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