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## RESEARCH NOTES

### Value Chain Analysis for Tobacco in Karnataka

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#### ABSTRACT

In this paper, an attempt has been made to analyze the value chain of Bidi and FCV tobacco in Karnataka as it is one of the important states producing Bidi tobacco and FCV tobacco. The analysis is mainly based on the primary data collected from various actors along the value chain of tobacco using the semi-structured schedules in Nippani and Mysore regions for Bidi tobacco and FCV tobacco crops respectively. The paper identifies the need for improving the performance of weak actors, namely farmers, and controlling dominant actors (manufacturers) along the value chain through institutional interventions keeping in view the larger societal need to control tobacco consumption.

**Key Words:** Tobacco, Tobacco Cultivation, Value Chain, Bidi, Cigarette

**JEL:** Q10, Q11, Q13, Q18I

#### I

#### INTRODUCTION

The value chain analysis has been adopted by several governments, donor agencies, and NGOs for the development of the economy and reduction of poverty in recent years (Donovan *et al.*, 2014). A "value chain" refers to all the activities required or carried out from the point of origin of a product or service to the final delivery of the product or service to the customers. These activities involve a physical transformation of products and input of various producer services along the chain (Kaplinsky and Morris, 2001). According to Porter (1985) a value chain is a collection of processes that a company performs to create value for its consumers resulting in higher profits and competitive advantage to the company. Value chains and supply chains are considered the same and are used as synonyms, though there are differences. Both the supply chain and the value chain are complementary and involve the same actors. The supply chain represents the flow of goods and services from the source to the end customer. The value chain, on the other hand, shows the flow of value in the form of customer-to-supplier demand. Therefore, the supply chain focuses on integrating supplier and producer processes, improving efficiency, and reducing waste, and the value chain focuses on creating value from the customer's perspective (Reddy, 2013). This indicates that the value chain has a different focus and a wider range. A supply chain is a chain of product transmissions from one stakeholder to another. The value chain is value creation at various stages along the production chain. Different actors give value to the product at various stages of the value chain, raising the final product's value. As a result, a value-chain analysis considers each stage along the way, from the raw materials to the end-user, including disposal of the package after use. The goal of the value-chain analysis is to provide the end-user with the most value

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at the lowest total cost. As a result, the value-chain analysis includes the supply chain as a subset. In the literature, there are primarily three approaches to the value chain (Donovan *et al.*, 2014; UNIDO, 2009). These are; (i) the Filière approach (meaning thread or chain), (ii) the conceptual framework created by Porter (1985), and (iii) the global approach proposed by Kaplinsky and Morris (2001). The concept of value chains emphasises how actors add value and increase value to the product by considering the relationship between its production and consumption. Value chains can be considered in terms of mapping, value creation, management, and up-gradation. The theory of value (Donovan *et al.*, 2014), proposed by Porter in 1985, is a powerful tool for studying competitive advantage. According to this theory, the competitive advantage of a business unit comes from its procurement, production, and marketing activities.

In the agricultural sector, efforts have been made to promote agro-value chains for many agricultural products like potatoes, maize, etc. (which are essential food products). In this section, an effort has been made to analyse the value chain of tobacco (which is harmful to health). The supporters of tobacco argue that tobacco provides a lot of employment and income, especially for weaker sections of society (especially; farmers, tendu<sup>1</sup> leaves pluckers, bidi rollers, and retailers). Studies in bidi tobacco (Sathyapriya and Govinda Raju, 1990; Bhat *et al.*, 1998; Panchamukhi. *et al.*, 2000; Government of India, 2001; CTRI, 2012) and Flue-Cured Virginia (FCV) tobacco regions (Dinesh *et al.*, 2010; Krishna *et al.*, 2010; Rao and Nancharaiah, 2012; Ranganadhan, 2014; Nayak, 2015; Prabhakara *et al.*, 2018; Ramesh *et al.*, 2020) do indicate that there are a good number of alternative crops including mixed cropping that can yield higher income or income nearer to the returns from the tobacco crop if suitable institutional support is available for their cultivation. Currently, both bidi and FCV tobacco receive easy institutional credit and, yield better returns to farmers as a mono-crop. In addition, FCV tobacco receives other benefits like marketing support, supply of seedlings and inputs, subsidies on energy-saving devices used in barns, study tours, etc. from the Tobacco Board and the industry. The returns from mixed cropping of alternate crops are considered to be comparatively better than tobacco mono-crop. In the absence of support equivalent to those available for tobacco, farmers continue to grow tobacco. In this context, a modest attempt has been made to analyse the value chain of bidi and FCV tobacco in Karnataka. This analysis would help in understanding the structure and functioning of various actors, the flow of goods, information, and, finance through the various stages of the chain, strengths and weaknesses of various actors, value addition, and income generation by actors.

## II

### METHODOLOGY OF THE STUDY

Many organisations have developed guidelines for value chain development. These organisations include; the Food and Agriculture Organization of the United Nations (FAO), the Department for International Development (DFID), the World Bank, the UN Industrial Development Organization (UNIDO), the International Fund for Agricultural Development (IFAD), International Potato Centre (CIP), International

Center for Tropical Agriculture (CIAT), etc. These guidelines are designed to implement independently of the specific context, in which the chain is situated. According to Donovan *et al.* (2014), these guidelines lack discussion on the required conditions at various levels for value chain development to determine the development goals and their success in implementation. In this context, the present paper adopts its own framework for analysis of the tobacco value chain in Karnataka. The analysis is mainly based on the primary data collected from various actors along the value chain of tobacco by administering the semi-structured interview schedules to respective respondents in Nippani and Mysore regions for bidi tobacco and FCV tobacco respectively. In total 60 farmers, 30 from the bidi tobacco region and 30 from the FCV tobacco region were interviewed for estimating value additions. To get the relevant information from other actors, we surveyed ten of each of the commission agents, merchants/traders, marketing agents, and retailers. The information was collected in 2019.

## II

### BIDI TOBACCO VALUE CHAIN MAPPING AND SWOT ANALYSIS OF ACTORS

Value chain mapping and actors' SWOT analysis (strengths, weaknesses, opportunities, threats) are the decisive steps in value chain analysis. Value chain mapping helps identify the location of different actors, their characteristics, and the relationships between them. It describes the movement of goods, employment, volume of business, etc. along the value chain. The SWOT analysis is useful to improve the activities, competitiveness, resource use efficiency, identifying new opportunities, and dealing with risks efficiently. Value chain mapping and SWOT analysis helps visualize the connections and processes among the actors. It also facilitates the development of strategies to improve chain performance. But, in the case of tobacco, which is a demerit good, the purpose of presenting opportunities is to aid governments and anti-tobacco activists to plan and counter the initiatives to reverse these opportunities to discourage tobacco production.

In Karnataka, the Nippani region of Belgaum district has peculiar soil and climatic conditions facilitating the cultivation of high-quality bidi tobacco. Tobacco grown in Akkol and Mamdapur areas near Nippani is considered to be the best quality in the world and attracts many manufacturers of bidi to the area and, fetches the highest price. This tobacco is brownish red, with a green tinge, and has a good flavour, and aroma compared to the bidi tobacco of Gujarat (Charotar Tract). Bidi manufacturers mix this Nippani tobacco with other types of bidi tobacco for getting sweetness to bidi smoke.

Farmers in this area have been growing tobacco for two generations. As per the general information available, it is known that tobacco cultivation existed in Belagavi district during the East India Company era. The company's officials had a list of farmers whom they regularly traded with. They used to supply the required inputs for cultivation and bought back tobacco from them. Discussions with the farmers reveal that middlemen, merchants, and tobacco processors have continued the practice of providing the necessary inputs to farmers who also provide credit to poor farmers at

critical times like marriage, other functions, death, etc. Thus, there has been a strong bond between farmers and marketing agents. Nationalized banks, cooperative banks, and private money lenders also provide necessary credit for tobacco farmers. Therefore, it is easy for tobacco farmers to get credit in this area. Agriculture Research Station (ARS) which is located at Nippani has been actively engaged in promoting tobacco cultivation in this region. Under the rainfed condition, tobacco is viewed as the only major cash crop for farmers. Thus, several factors tempt farmers to cultivate tobacco and sustain it for so many years. Despite all these advantages, the farmers have been facing problems in the cultivation and marketing of tobacco. Uncertainty of rains, failure of seedlings, the emergence of disease, and infection in the nursery are major problems faced by tobacco farmers in cultivation. The cultivation also requires more labour compared to other crops. In the past, there were joint families where farmers took the help of women and children for tobacco cultivation and processing. The wage rate for labourers was also very less. Fragmentation of joint families, employment opportunities outside of agriculture, and the implementation of government welfare programmes like MGNREGA (as perceived by the farmers) have resulted in the lesser availability of agricultural labour for tobacco. As a result of these factors, the availability of labourers has declined and agricultural wage rates have also increased in the villages. Thus, the high cost of cultivation is one of the major problems for farmers. Apart from seeking loans from commercial banks, farmers have started to form cooperative societies for getting credit for purchasing inputs. Additionally, they seek information regarding pest control and quality seeds from Nippani's Agriculture Research Station. Although the state's bidi tobacco acreage declined by 50 per cent during 2003–2004 to 2017–2018, the production and productivity levels rose by 107 per cent and 319 per cent respectively as a result of better farming practices.<sup>2</sup> Farmers now grow alternative crops like sugarcane, bananas, onions, vegetables, etc., due to the extension of irrigation facilities. This has led to a decrease in the area covered by tobacco in recent years around Nippani tract, which was once flourishing with tobacco trade and famous for flavourful bidi tobacco. Unpredictable rainfall during 2017–18 had a substantial impact on bidi tobacco production and productivity levels.

Bidi tobacco is handled by traders and middlemen and does not have a regulated market like FCV tobacco. After harvesting (cutting), the tobacco leaves are left for sun-curing on the field and processed by removing the straw, roots, and other wastes at the household level of the farmers. Then, tobacco leaves are packed in *Bodhs* (Jute bags), which normally contain 60 kg of tobacco. There are about 20 commission agents<sup>3</sup> operating in Nippani area in Karnataka. Farmers must wait for commission agents to arrive in their villages before marketing this tobacco. These commission agents visit the villages suddenly without any prior intimation to the farmers. Hence, farmers do not get the right information about the price, time and place of marketing, etc. Most of the cultivators are small and marginal farmers. Hence, farmers have little choice but to sell their tobacco to middlemen as they are not organized. Each commission agent has his area fixed virtually for purchasing tobacco from farmers. Usually, no commission agents dare to purchase tobacco from the village which is operated by other commission agents. This is because of the undocumented

understanding without any legally binding clause practiced for several years. Therefore, no other commission agent would come to that village to purchase tobacco. Middlemen take advantage of this and indulge in many malpractices like weight deduction, discarding leaves on the pretext of low quality, etc. Thus, commission agents take advantage of an unorganized marketing system. Apart from these problems, farmers also face the problem of price fluctuation and hence do not get remunerative prices. Now farmers are aware of the difficulties in the cultivation and marketing of tobacco. The price of tobacco varied between Rs.80 to Rs.115 per Kg during 2017-18. These commission agents sell tobacco to tobacco merchants. The process of buying and selling of tobacco enables commission agents to earn Rs.2/kg of tobacco. The prices of cereals and pulses in the region remained less than Rs.50 during this period.

Nippani is a centre of the bidi tobacco trade. There are about 15 tobacco merchants, mostly located in Nippani, who buy the same from commission agents. These merchants have many Godowns (*Vakhars*) within and around Nippani. Merchants (or merchants cum processors) process the tobacco at the processing units located in and around Nippani. There are about 20 privately owned processing units in the Nippani region and they charge Rs. 7/- to process one kilogram of tobacco. These units generally employ between 5 and 10 workers, most of whom are female. Surprisingly, workers indicated that they have been working for many years and that they do not have any health problems. This is the reporting of perceived health by the workers, which is not clinically examined and is beyond the scope of this study. These women cover their noses with a cloth to protect them from dust during work.

Tobacco products are distributed by Nippani Merchants to bidi manufacturing hubs in Karnataka's Mangalore, Mysore, Sira, and Bengaluru. Mangalore is called the bidi capital of Karnataka. The processed tobacco is also sold by wholesale traders in Nippani to exporters in Mumbai and Calcutta for further shipment abroad. Bidi manufacturers prefer to buy unmanufactured tobacco produced in the Nippani area of Chikodi taluk, as the produce in the area possesses high smoking quality. Bidi companies purchase processed tobacco of Nippani and mix this tobacco with other types of bidi tobacco grown in other parts of the country. They also purchase tendu leaves, which are collected from the forest areas of Madhya Pradesh and Orissa by the tribal women. The companies have branches in different parts of the state where raw materials such as tendu leaves, tobacco, and threads are supplied and stored. Discussions with the managers of bidi companies reveal that most of the bidi companies are now working in an unorganized form to avoid the costs in terms of contributions to Employees Provident Fund (EPF), Employees' State Insurance (ESI) and to avoid labour laws (minimum wage). But, the demand for bidis has been declining continuously in Karnataka and other parts of the country, despite all the efforts made by the bidi companies.<sup>4</sup> As a result, only a few companies are now operating in the market. As reported by the proprietors of the local bidi companies, about 4000 bidis can be made from one kilogram of tobacco requiring tendu leaves worth Rs. 400, which are purchased at Rs. 180/kg.

The primary connection between bidi employees and bidi manufacturing firms is provided by bidi contractors. Bidi contractors provide required raw materials such as processed tobacco, tendu leaves and thread to bidi workers based on the number of bidis to be prepared. After rolling the bidis, the workers give these bidis to bidi contractors. The payment to workers is made on Tuesday (market day) based on the number of bidis prepared. After collecting and arranging these bidis, the contractors supply these to the manufacturers. These contractors report that they get around Rs.7.0 for every 1,000 bidis produced. It was learned that these contractors were on strike during the investigating period demanding higher payments. They argue that they get only Rs. 6.90 for every 1,000 bidis produced while manufacturers offer Rs 60 for every 1,000 bidis sold to shop owners. Traders in Nippani reported that there are about 6000 bidi contractors in Karnataka. In some cases, bidi companies/ branches issue the raw material (tobacco, thread, and tendu leaves) directly to the workers who roll bidis at home and bring it back to the company.

Many poor families in rural, semi-urban and slum areas in Karnataka have relied heavily on bidi rolling as a source of income. Women, mainly belonging to weaker sections of society, are engaged in bidi rolling as this activity does not require any specific skill and they can work at home. The women work for about 8 to 10 hours per day from morning 10 am to 8 pm, after completing their household activities. The bidi contractor provides the required material to these workers. Tobacco is placed on the leaf (cut to shape) and spread uniformly lengthwise and the leaf is rolled into a conical shape. The broad end is then closed and the other end is tied with a thread. Bidi workers get Rs. 200 as wages for every 1,000 bidis rolled. Discussion with bidi rollers reveals that bidi rolling has been reduced significantly in recent years. Earlier they used to roll 1000 bidis every day, but now they are allowed to roll only 4000 bidis in 8 days. Apart from this, they reported that the number of bidi rollers has also reduced as the demand for bidi has significantly reduced.

Following the contractor's collection of the bids, the companies verify them before organising them in a systematic manner for further processing (i.e., pushed into the furnace or Bhatti). This is done for toning the bidis to the required stiffness and smell. The bundles of 20 to 25 bidis are packed (depending on the company) and labeled with the company name and pictorial warning for consumers. The bidi companies sell the bidis to wholesalers located in different parts of the state. The wholesalers sell to the retailers who in turn sell them to the consumers.

Bidis are mainly consumed by the poor due to their extremely low cost when compared to cigarettes. Bidi companies (industry) have been enjoying preferential treatment as a cottage industry for a long time. Because of the unorganised and unregulated nature of bidi-making, the manufacturers can easily escape from paying taxes. Declining demand for bidi, high tax rates, and awareness among the workers are the major threats to bidi companies. The farmers, agricultural labourers, tendu leaf pluckers and bidi rollers are the weak actors in the bidi tobacco value chain exploited by the dominant actors, namely; commission agents, merchants, and manufacturers. Figure 1 shows the value chain map of bidi tobacco in Karnataka. It shows that in total, farmers, commission agents, merchants (cum processors), bidi companies, bidi

contractors, tendu leaf pluckers and bidi workers are the major actors in the value chain of bidi tobacco.

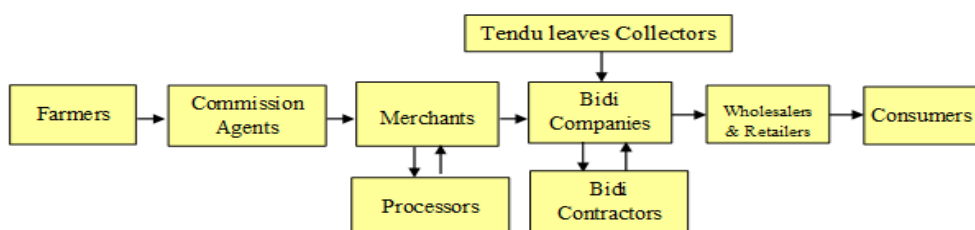


Figure 1: Bidi Tobacco Value Chain in Karnataka

The value chain mapping and SWOT analysis of the actors in the bidi supply chain shows that, in addition to the support of nature, farmers also receive assistance from intermediaries and research institutions when growing tobacco. But farmers face a lot of risks and uncertainties in cultivation, harvesting, and marketing. In contrast to commission agents, merchants, and bidi companies, who are a few in number but are nonetheless organized, farmers and bidi labourers are numerous, economically poor, and unorganized. Hence, farmers and bidi workers have been exploited by other actors (commission agents, merchants, processors, and bidi companies) in the value chain of bidi tobacco as the prices for the leaves are fixed by the agents. To overcome this, farmers and bidi workers can organize themselves as farmer-producer groups and can think of shifting to alternative crops and livelihoods. Restriction on the use of tobacco is a major threat to the bidi industry and has greatly affected the consumption and production of bidis.

### III

#### VALUE ADDITION AND INCOME DISTRIBUTION AMONG ACTORS – BIDI TOBACCO

After mapping and SWOT analysis, the final step in value chain analysis is the analysis of value addition and income distribution. This analysis would help in identifying the actors who need support to improve performance and gains. Table 1 shows the value addition and income of actors in the bidi tobacco value chain. It reveals that bidi companies create more value addition compared to all the other actors in the bidi tobacco value chain i.e., Rs.2959 as estimated per kilo gram of bidi tobacco. The bidi companies use managerial skills to get the bidis rolled and they do not face any risks and uncertainties like farmers. Retailers are next to bidi companies in terms of value addition (i.e., Rs. 322). Value addition of Rs. 65 is made by farmers and they earn an income of Rs.35 per kg of tobacco. The farmers' share in the total income earned from one kilo gram of tobacco is 4.1 per cent compared to 55.0 per cent and 36.6 per cent earned by bidi companies and retail shops respectively. Commission agents, merchants and bidi companies deal with large quantities of tobacco and hence they earn a lot of income. Whereas most of the farmers hold a small and marginal size of land, therefore can grow little and earn only a limited amount of income. Thus, bidi companies and those who sell bidis get huge benefits whereas the farmers who put in



labour to produce the raw material required for the production of bidis get a lesser share although the final finished product is more valuable. Retail shops add value to the extent of only 9.4 per cent but receive 36.6 per cent share in the income earned per kg of tobacco. They are the points of sale and add little or no value to the product except to showcase the product to the customers in an attractive way. Figure 2 shows a simple illustration of value additions made by different actors in the process of making one bidi which costs about 90 paise.

TABLE 1. VALUE ADDITION AND INCOME OF ACTORS IN BIDI TOBACCO VALUE CHAIN IN KARNATAKA (FOR 1 KG OF TOBACCO) 2018-19

Actors	Purchase price of inputs	Costs involved in the activity	Total costs (Col.2 + Col.3)	Sale price including tax	Tax cess etc.	Net sale price (Col.5 – Col.6)	Value addition per kg of tobacco (Col.5– Col.2)	Income per kg of tobacco (Col.7 – Col.4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Farmers	35.0*	30.0**	65.0	100.0	0.0	100.0	65.0	35.0
Commission agents	100.0	0.0	100.0	102.0	0.0	102.0	2.0	2.0
Merchants	102.0	7.0	109.0	113.0	0.0	113.0	11.0	4.0
Bidi Companies	113.0	1815***	1928.0	3072#	672#	2400.0	2959.0	472.0
Marketing agents (wholesalers and distributors)	3072.0	30.7##	3102.7	3133.7###	0.0	3133.7	61.7	31.0
Retail shops	3133.7	7.8\$	3141.5	3455.7\$\$	0.0	3455.7	322.0	314.2

Notes: \* Amount spent for purchasing inputs like seeds, fertilizers, manure, fungicides, etc.

\*\* Amount spent for hired labour, the imputed value of own labour, package, transportation cost, etc.

\*\*\* Includes, cost of tendu leaves, labour charges, charges of bidi contractors, packing, etc.

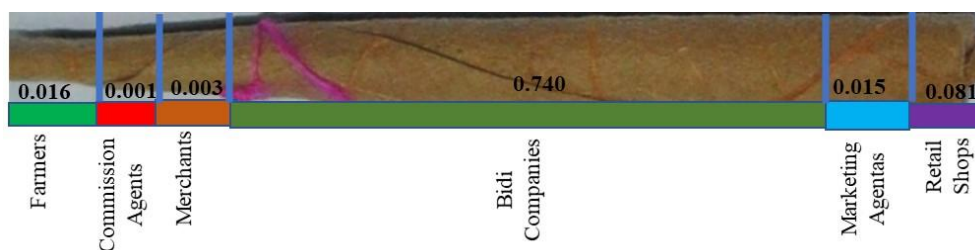
# Includes sale price of Rs.2400 and 28% GST of 2400 i.e., 672

## Marketing agents spent 1% of purchasing costs for carrying out their business (i.e., 1 per cent of 3072)

### Marketing agents earn a margin of 1 per cent on total cost i.e., 3102.7)

\$ Retail shop owners incur the cost of 0.25 per cent of the purchase price on carrying out their business

\$\$ Retailers get 10% of the margin for the products (i.e., 10 per cent of 3141.5)



Note: Figures in the picture indicate value addition made by each actor and figures in parentheses indicate the percentage of total value created.

Figure 2: Value Addition of Actors in Bidi Tobacco Value Chain in Karnataka (Rs. / Bidi) 2018-19

Bidi tobacco farmers are unorganised, and there is no restriction on the entry of farmers to cultivate tobacco unlike restrictions imposed on FCV tobacco growers in the Mysore region in Karnataka. They also face a lot of uncertainties and risks in raising tobacco crops and many a time they incur heavy losses due to an unregulated market. The other actors, namely, commission agents, merchants, and processors, take advantage of such situations and make a higher income. They can exploit farmers because there is no competition among these commission agents, merchants, and processors. Bidi rollers are also exploited by bidi companies, which pay lower wages and deny welfare benefits to rollers. Although tobacco merchants pay a 5 per cent tax while purchasing raw/unmanufactured tobacco, it is rolled back to them after the sale.

#### IV

##### FCV TOBACCO VALUE CHAIN MAPPING AND SWOT ANALYSIS OF ACTORS

FCV tobacco is the most important commercial crop grown under rainfed conditions in Mysore and Hasan districts of Karnataka. Nearly 85 per cent of the FCV tobacco area in Karnataka is mainly concentrated in four taluks (namely; Hunsur, H.D.Kote, Periyapatna, and K.R.Nagar) of the Mysore district and the remaining area of around 15 per cent is in Arakalgudu and Holenarasipura taluks of Hassan district and some scattered area in Chikmangalore, Shimoga as well as Davangere districts. The soil and climatic conditions and resistance to drought and diseases support the cultivation of FCV tobacco in the Mysore region of Karnataka. After harvesting tobacco, farmers in the Mysore region grow cotton, maize, finger millet and pulses. Thus, farmers get benefits by growing both cash crops and food crops. The FCV tobacco of Mysore is called and classified as a 'super quality filler' in the international market. The FCV tobacco has low to medium nicotine, high reducing sugars, and low chlorides and is considered a 'Value for Money'<sup>5</sup> tobacco in the international market. All the cigarette companies are interested in purchasing FCV tobacco from Mysore. Farmers find tobacco cultivation more remunerative as compared to other crops under rainfed conditions. Therefore, farmers are reluctant to give up tobacco cultivation. The average price of tobacco was Rs.140/kg during the year 2017-18.

Tobacco Board plays an important role in maintaining production by fixing the area and production of tobacco according to its demand. Therefore, farmers generally do not face problems of fluctuation in FCV tobacco prices. The Board provides necessary inputs like seeds, fertilizers, pesticides/fungicides, etc., at reasonable prices. It also makes arrangements for getting loans from banks and other financial institutions, facilitates training, field demonstration, etc. As per field reports, the tobacco company generally employs one field person per village to assist tobacco farmers in growing quality tobacco. The Tobacco Board has made arrangements for the efficient marketing of FCV tobacco in this region. The risks and malpractices are normally not found in the marketing of FCV tobacco. The Tobacco Board also provides financial assistance in the form of grants/loans to meet the educational, social, and health needs of the growers and their family members in addition to assistance in times of natural calamities. Thus, FCV tobacco growers get a lot of

support from the Tobacco Board and tobacco companies. These types of facilities are not available for any crop anywhere in India. Despite all the favourable conditions and facilities, FCV tobacco farmers have been facing the problem of untimely and insufficient rainfall in recent years. Shortage of labour is a major problem for FCV tobacco growers. Currently, farmers are mainly dependent on migrated labourers from Andhra Pradesh who work on a contractual basis.

FCV tobacco is purchased mainly by cigarette manufacturers and exporters who are organised on a large scale across the world. During 2017-18, a total number of 39 buyers participated in FCV tobacco auctions in Karnataka. The Indian Tobacco Company (ITC) Ltd. (46.52 per cent) and Godfrey Phillip India (GPI) Ltd. (6.56 per cent) both Manufacturers, and, Polisetty Somasundaram (10.99 per cent) an exporter were the major buyers of FCV tobacco in Karnataka in 2017-18 auctions (Tobacco Board, 2018). These companies have their representatives in all the auctioning platforms for facilitating the purchase of tobacco. After purchasing tobacco at Mysore, tobacco traders/members appointed by tobacco companies transport the raw tobacco to Guntur for cleaning, processing, and packing. The exporters take this processed tobacco to Vijayawada and Chennai ports for export. The cigarette companies like ITC Ltd. and VST (Vazir Sultan Tobacco) transport this tobacco to their manufacturing units across the country. ITC Ltd., GPI Ltd., VST, and National Tobacco Company (NTC) are the major producers of cigarettes in India. ITC Ltd. is the market leader in cigarettes in India.

The cigarette companies have a good network of marketing to supply cigarettes to consumers. From the factories, cigarettes are directly supplied to C and F agents (carrier and forward) who are under the direct control of cigarette companies. The C and F agents should have proper godowns to store the products. The C and F agents purchase cigarettes from the factory and supply cigarettes to distributors who are located in important cities. The distributors have to maintain the warehousing facility to store the products. The distributors place an order to depots (C and F). The distributors make all efforts to improve the sales in their area. Then, the wholesalers buy cigarettes from the distributors and sell the same to the small retailers. The distributors transport the cigarettes directly to the wholesalers on a cash-and-carry basis. The wholesalers earn a margin on each big bundle sold and not on individual packs. The retailers (Paan shops and small grocery stores) purchase cigarettes based on the demand from wholesalers. The retailers purchase cigarettes by paying cash. It is reported that the retailers usually purchase cigarettes and other tobacco products like bidis, gutkha and paan masala, etc., once a week. Several agents purchase cigarettes from wholesalers and deliver the same directly to small retailers along with tobacco (bidi, gutkha, khaini, paan masala, etc.) and other products (chocolates, biscuits, etc.). Each agent has a particular area for marketing these products. The agents daily travel to a particular area on a small vehicle/bike with these products and distribute them to all the retailers. Figure 3 shows the value chain map of FCV tobacco.

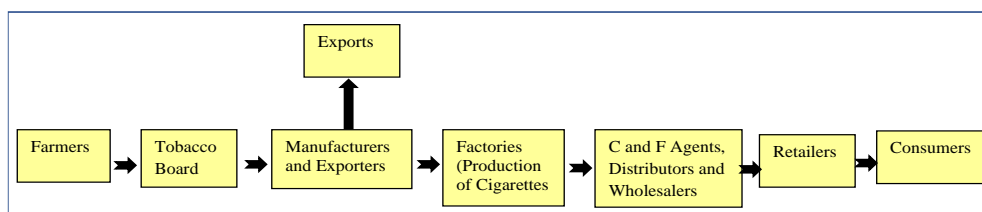


Figure 3: FCV Tobacco Value Chain in Karnataka

The mapping and SWOT analysis of the FCV tobacco value chain reveal that due to the support of the Tobacco Board, farmers face comparatively lesser risks of price fluctuations. The auction market helps them attain better prices. Although most of the tobacco cultivators have small and marginal landholdings, the Tobacco board, which has legal backup, provides many services to farmers to protect their crops and livelihood and, it also helps the manufacturers by facilitating the supply of good quality tobacco through the auction market at reasonable prices. The manufacturers have a well-organized wide marketing network all over the world and within India. The recent policies to control production and consumption through restrictions on the sale, smoking, advertisements, etc., have threatened all the actors along the value chain, especially cigarette companies. Some of the tobacco companies have diversified their activities and initiated the manufacturing of other consumer products also.

v

#### VALUE ADDITION AND INCOME DISTRIBUTION AMONG ACTORS – FCV TOBACCO

Table 2 presents the value addition and income of actors in the FCV tobacco value chain in Karnataka. It reveals that tobacco companies are the important gainers in the value chain of FCV tobacco as their value addition (Rs.4341.4) and income earned (Rs.1091.9) per kg of tobacco is higher compared to other actors along the value chain. Tobacco farmers' value addition and income earnings are very low (Rs.111.0 and Rs.59.4 respectively) though they take a lot of risks and face uncertainties in growing tobacco. Since Tobacco Board aims at the overall development of tobacco growers and the Indian tobacco industry, it does not add any direct value to tobacco. It levies fees for its services and earns Rs.1.65 per kg of tobacco. Marketing agents add a value of Rs.90.4 and get an income of Rs. 45.4 per kg of tobacco. For retailers, cigarettes are an important source of income; they add a value of Rs.471.6 and get an income of Rs.460.1 per kg of tobacco. The share of farmers in total income earned from 1 kilogram of cigarette tobacco is 3.6 per cent compared to 65.8 per cent and 27.7 per cent earned by cigarette companies and retailers respectively. And, 0.1 per cent goes to the Tobacco Board and, 2.7 per cent to marketing agents. The analysis of value addition and income distribution shows that despite taking a lot of risks, uncertainties, and a lot of pain, the farmers get very low income compared to other actors along the FCV tobacco value chain. Figure 4 presents a simple illustration of value additions made by different actors along the process of making one cigarette, valued at Rs. 6 on an average.

TABLE 2. VALUE ADDITION OF INCOME OF ACTORS IN FCV TOBACCO VALUE CHAIN IN KARNATAKA (FOR 1 KG OF TOBACCO) 2018-19

Actors	Purchase price of inputs	Costs involved in the activity	Total costs (Col.2 + Col.3)	Sale price including tax	Tax, cess etc.	Net sale price (Col.5 – Col.6)	Value addition per kg of tobacco (Col.5- Col.2)	Income per kg of tobacco (Col.7 – Col.4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Farmers	45.0*	50.0**	95.0	156***	1561***	154.4	111.0	59.4
Tobacco Board	0.0#	1.47##	1.47	Tobacco Board facilitates sale and purchase only				1.65###
Cigarette companies	157.56\$	833.0\$\$	990.56	4499\$\$\$	2416.5\$\$\$\$	2082.5	4341.4	1091.9
Marketing agents (C&F agents, wholesalers and distributors)	4499	44.99+	4543.99	4589.43++	0.0	4589.4	90.4	45.4
Retail shops	4589.43	30.903+++	4600.9	5060.99++++	0.0	5061.0	471.6	460.1

Notes: \* Amount spent for purchasing inputs like seeds, fertilizers, manure, fungicides, etc.

\*\* Amount spent for hired labour, the imputed value of own labour, package and transportation cost, etc.

\*\*\* Service charges by Tobacco Board (1% of value to tobacco) and Contribution to welfare fund of Rs.0.001/kg by farmers = Rs.1.561. # Tobacco Board facilitates the marketing of tobacco; hence there would be no purchasing price ## Operation cost of the Tobacco Board (TB). The total expenditure of TB excluding establishment cost has been divided by the total quantity of tobacco marketed by TB to get the operation cost per Kg of tobacco (Data obtained from the Annual Report of TB 2017-18)

### To calculate the Income of Tobacco Board, the total costs of TB (operational costs) have been deducted from its total revenue. Revenue of TB from its services includes; Service charges (buyers and farmers) and the contribution of farmers to the welfare fund (1% + 0.001/Kg) minus operational costs= Rs.3.121/Kg. The cost involved in its service is Rs.1.47/Kg. Thus, the income of TB is Rs.1.65 (Rs.3.121- Rs.1.47)

\$ Price of raw tobacco: Rs.156 (purchase price of tobacco) +Rs.1.56 (1% Service tax) = Rs.157.56

\$\$ Cost of production of Cigarettes is Rs.1/Cigarette. 1000 Cigarettes can be produced from 1.2 Kg of tobacco, i.e., 833 Cigarettes/Kg of tobacco; \$\$\$ Sale Price (Rs.2.5/Cigarette x 833 Cigarettes = Rs.2082.5) + Tax (Rs.2416.5)

\$\$\$\$ Tax on Cigarettes: (28% GST of 2082.5 is 583.1) + (5% GST compensation rate of 2082.5 is 104.1) + (2076 per thousand Cigarettes i.e., 1729.3 for 833 Cigarettes)

+ Marketing agents spent 1% of purchasing costs for carrying out their business

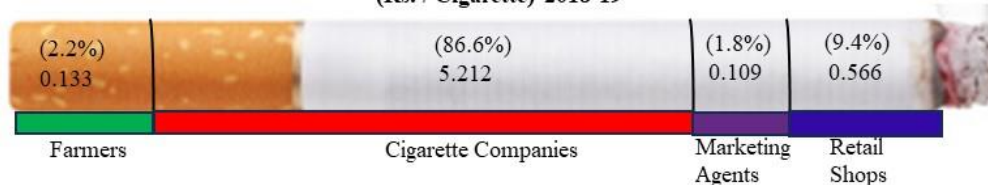
++ Marketing agents earn a margin of 1% on total cost i.e. 4543.99)

+++ Retail shop owners incur 0.25% of the purchase price on carrying out their business

++++ Retailers get 10% of the margin for the products i.e. 10 % of Rs.4600.9 =5060.99

The above information/data has been obtained from sample actors. The data on tax and cess are presented separately based on the availability of information.

Figure 4: Value Addition of Actors in FCV Tobacco Value Chain in Karnataka (Rs. / Cigarette) 2018-19



Note: Figures in the picture indicate value addition made by each actor and figures in parentheses indicate the percentage of total value created.

As shown in Figure 4, the cigarette companies add more value to the product. And therefore they receive the highest share in income (see Table 2). Farmers add 2.2 per cent to the total value of a cigarette and receive approximately 3.58 per cent of the income earned from the sale of one kg of FCV tobacco. The percentage share of income earned by different actors shows that the share of earnings in total is nearly in accordance with the shares of each actors in value addition. But according to the details of income earned by each actor per kg of FCV tobacco (as shown in table 2), retail shops who add value to an extent of only 10 per cent, receive 27.75 per cent share in income earned from the sale of one kg of FCV tobacco. Although cigarette companies incur greater costs to add greater value to the product in terms of attractive packaging and advertisement, these costs are unnecessary and may be avoided in the interest of public health. Whereas the farmer indulges in minimum costs and adds minimum value, which is essential for placing the tobacco leaves for sale.

## VI

### CONCLUDING OBSERVATIONS

The bidi and FCV tobacco value chain analysis reveals that while bidi tobacco farmers sell their produce through middlemen and merchants, FCV tobacco is sold through auction market facilitated by Tobacco Board. In both the cases, the commission that goes to these facilitators is less than one per cent of the income earned from the sale of raw tobacco. But the value addition made as well the earnings are higher for tobacco companies. Both bidi and cigarette companies contribute 86 per cent to the total value of the final product i.e. bidi and cigarette respectively. Bidi companies get 55 per cent of the income while cigarette companies receive 65 per cent of the income estimated from the sale of per kg of respective tobacco. A bidi tobacco farmer adds 1.9 per cent value in making one bidi and earns a share of 4.1 per cent in the sale of one kg of bidi tobacco. A FCV tobacco grower adds 2.2 per cent value in making a cigarette and earns a share of 3.6 per cent in the sale of one kg of FCV tobacco.

Although tobacco product companies incur greater costs than farmers in the process of adding more value to the product in terms of attractive packaging and advertisement, these costs are unnecessary and may be avoided in the interest of public health. Whereas the farmer indulges in minimum costs and adds minimum value, which is essential for placing the tobacco leaves for sale. Although, tobacco is a cash crop and is lucrative, the farmers get the lower share in total income as compared to retail shops and manufacturing companies. The farmers are large in number and possess small holdings. Therefore, their earnings are also lower compared to companies who are a few and benefit from mega shares.

In the case of FCV tobacco, Tobacco Board provides all types of support to tobacco farmers making it a lucrative crop. But such support is not available for any other crop. Therefore, the alternative crops can be economically attractive only if they also get the same support that is available to FCV tobacco from the Tobacco Board. Otherwise, the government may think of establishing similar institutions to provide

support to other crops; like Maize Board, Wheat Board, Jowar Board, Cotton Board, etc. Several countries including India are signatories to WHO Framework Convention for Tobacco Control (FCTC) and are committed to reduce tobacco consumption and cultivation gradually over the years. The policy to control production and consumption is a concern to the actors along the value chain, especially bidi and cigarette companies although they are stable and continue to stay in the market. Some tobacco companies have diversified their production into Fast Moving Consumer Goods (FMCG), information technology, hospitality and service sector while continuing to gain profit from the sale of tobacco products. Only when farmers realize that they are the least gainers in the tobacco value chain process, they can be motivated to shift from tobacco. The values presented in the analysis are based on rough estimates developed for one kilo gram of bidi and FCV tobacco based on a small sample. Similar comparative studies with value chain analysis of other crops vis-à-vis tobacco may throw further light on this issue.

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#### NOTES

1. Dried and crushed raw tobacco leaves are rolled into Tendu leaves (collected from the forest) and then tied with thread and roasted lightly to make bidis.
2. Un-published data from Agriculture Research Station, Nippani.
3. A commission agent is a person who acts as an agent between producers and traders/ processors in the marketing of Bidi Tobacco with his establishment
4. As reported by local bidi companies in Nippani.
5. Tobacco Board, Annual Report-2017-18

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