

# Covid-19 Triggered Tobacco New Normal: Need for Crop Diversification

B. Hema<sup>1\*</sup>, D. Damodar Reddy<sup>2</sup> and S. Kasturi Krishna<sup>3</sup>

<sup>1</sup>Scientist, (Agricultural Extension), <sup>3</sup>Principal Scientist & Head I/C, Division of Crop Production, <sup>2</sup>Director, ICAR-Central Tobacco Research Institute, Rajahmundry-533105, Andhra Pradesh

## ABSTRACT

The present paper is an attempt to analyze the post Covid-19 tobacco sector and need for crop diversification in tobacco growing areas of India. The study was primarily based on the time series secondary data on area, production, exports and government anti-tobacco initiatives and progress in implementation of crop diversification in tobacco growing zones of India. Tobacco sector is at crossroads today due to social stigma attached to the crop from many years and the national and international policies relating to tobacco are becoming increasingly stringent in the recent years. The current declining demand is expected to reduce the tobacco production in future. Presently, with the advent of Covid-19 pandemic and emergence of new normal situation in tobacco, it will result further in decline of tobacco consumption, drop in funds to tobacco research support, farmers unable to get fair price due to decrease in demand for tobacco exports leads to fall in net returns to the growers. All these changes point to the fact that the tobacco sector is fraught with a great degree of uncertainty posing serious challenges to cultivation by farmers in future. In view of this, the future of people dependent on tobacco needs to be realigned in line with crop diversification with demand driven commercial crops so that the emerging and unforeseen socio-economic and environmental issues of tobacco sector can be addressed effectively.

**Keywords:** Commercial crops, Covid -19, Diversification, FCTC and Tobacco

## INTRODUCTION

Tobacco, a plant with global presence is grown in more than 100 countries with a worldwide production of 6.1 million tons of tobacco cultivated in 3.3 million hectares of land. India holding its dominance position as third largest producer (750 M kg) of tobacco cultivated in an area of 0.42 M ha after China (2242 M kg) and Brazil (762 M kg) in the World. (FAOSTAT 2018). Flue-Cured Virginia (FCV), *bidi*, hookah, chewing, cigar wrapper, cheroot, burley, oriental, HDBRG, *lanka*, *pikka*, *natu* etc. are the main types of tobacco grown in the country, with FCV and Burley tobacco being the main exportable types. Tobacco production in India is mainly concentrated in the states of Andhra Pradesh, Karnataka, Gujarat, Bihar, Uttar Pradesh, West Bengal and Tamil Nadu. Tobacco leaf is used for making smoke and smokeless products including cigarettes, *bidis*, *hookah*, *cigar*, *cheroot*, *khaini*, *zarda*, *kiwam*, *gutka*, *mishri*, *mava*, *snuff* etc. The returns from tobacco is contributing substantially to the national exchequer by way of excise duty (227.4 billion) and foreign exchange earnings (60 billion) (Tobacco Board 2019).

At present, the perception of people towards tobacco is slowly changing. Although tobacco is profitable from farmers point of view, but due to social stigma attached to this crop coupled with anti-tobacco policy measures and present Covid-19 pandemic hitting pressure to identify the viable alternative livelihood for tobacco farmers. Around the world, some countries have tried small programs to introduce new crops. Still, there is no panacea for this transition. Few farmers switch to and from tobacco, based on hopes for high leaf prices. Taking into account the ongoing and forthcoming challenges in tobacco sector, the present study aims to evaluate the post Covid-19 tobacco sector and pressing need for crop diversification in tobacco growing zones of India.

## MATERIALS AND METHODS

The study was primarily based on the time series secondary data obtained from various authentic sources and records. Data on area, production, consumption and exports were collected from Food and Agricultural Organization (FAO) statistics; reports of WHO (World Health Organization),

\*Corresponding author email id: hema.baliwada@gmail.com

Tobacco Atlas, Statista (The Statistics portal), DAC&FW, Ministry of Agriculture reports, Tobacco Board and Spice Board statistics. Graphical analysis is used in analyzing the FCV tobacco, ginger, chillies and turmeric crops prices and export value over the years. Production, exports and smoking prevalence of tobacco was analyzed for the recent years and inferred accordingly the future of tobacco sector. Further, progress in implementation of policies, interventions and budget allocation for crop diversification in tobacco growing areas are interpreted with the data available from the authenticated sources. In addition, next best crop options for different FCV and non-FCV tobacco growing regions are identified for future implementation measures.

### RESULTS AND DISCUSSION

Among different types of tobacco grown in India, FCV tobacco ensures fair and consistent price to the growers. It is also one of the main exportable tobacco types and it is cultivated in Andhra Pradesh and Karnataka. Average prices realized by FCV tobacco farmers in Andhra Pradesh and Karnataka auctions since 2009 are given below (Figure 1&2).

Although tobacco particularly FCV is profitable from farmers view, in future there is every likelihood for

alternative crops due to serious alleged association of tobacco with health risks. According to WHO (2020) reports, tobacco kills more than 8 million people globally every year. In response to the globalization of the tobacco epidemic and to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco use, the World Health Organization’s Framework Convention on Tobacco Control (WHO-FCTC), which came into effect in 2005, provided a framework for tobacco control measures to prevent the global burden of tobacco related death and disability. Due to continuous and raising anti-tobacco campaigns, Article 17 of the WHO-FCTC compelled parties to promote viable alternative livelihoods for tobacco farmers. Many countries, including the world’s largest tobacco producers like China and Brazil are taking steps to find alternatives to tobacco growing.

The perception on tobacco is further intensified to disgrace after emergence of Covid-19 pandemic (Corona virus) which originated in China in late 2019. The Covid-19 infection continued to surge in different countries and turned into a pandemic that has affected almost 213 countries and territories around the world till date (Worldometers 2020). Experts are in the opinion that it

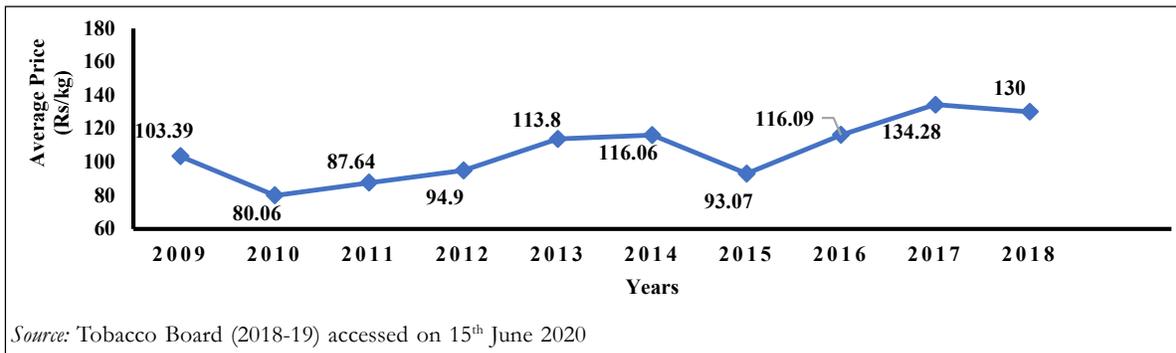


Figure 1: Average prices realized by FCV tobacco farmers in Andhra Pradesh since 2009

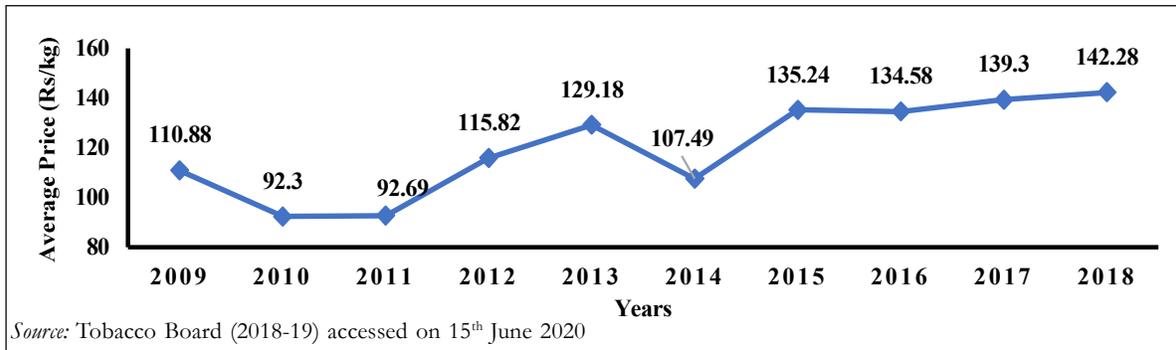


Figure 2: Average prices realized by FCV tobacco farmers in Karnataka since 2009

has significant impacts for many years. The magnitude of the threat has forced both governments and businesses to urgently elevate public health above economic principles. In connection to this, a recent review of studies by public health experts convened by World Health Organization (WHO) on 29 April, 2020 found that smokers are more likely to develop severe disease with COVID-19, compared to non-smokers. Besides, reports from Tobacco Institute of India (2020) opined that “The generalized advice to quit smoking as a measure to improve health risk remains valid, but no recommendation can currently be made concerning the effects of smoking on the risk of hospitalization for Covid-19”.

Although intensive research is needed to prove the facts, but reports says that phasing out cigarette sales would be an enormous long-term gain for public health. The new corona virus spreads through droplets from the mouth and nose, so the spitting that often accompanies chewing tobacco may also pose a risk by spreading the new corona virus. In connection to this many countries around the world have taken necessary preventive measures under the appropriate law to prohibit the use of tobacco in public places. Accordingly, government of India also banned the spitting of chewing smokeless tobacco products in public places and it is made a strict punishable offence during Covid-19 situation. The Covid-19 pandemic has triggered emergence of “Tobacco New Normal” situation.

#### **The Covid-19 pandemic has led to emergence of Tobacco New Normal characterized by:**

- Hightend health consciousness and awareness about tobacco related health hazards
- Reduced demand and supply for tobacco
- Stringent enforcement of tobacco control and regulation laws
- Exasperated social stigma/disgrace attached to tobacco
- Shift in funding support from tobacco production to tobacco control

Due to this ongoing crisis, it results in decline of tobacco consumption among the public. This translates directly into the production system which affects the top tobacco producing and exporting countries. The world’s most prolific and top three tobacco producers *i.e.* China, Brazil, and India are already facing alarming rates of corona virus infection. Countries around the world are increasingly adopting sweeping measures, including full

lockdowns, shutting down airports, imposing travel restrictions and completely sealing their borders, to contain the new coronavirus which also hits tobacco exports and imports. At the other side, FCV tobacco farmers in the country are staring at shrinkage in their earnings this year due to severe disruptions in auctions in the wake of lockdowns imposed by the Government to combat the spread of COVID-19 pandemic in India. Some of the immediate shocks of Covid-19 on FCV tobacco farmers are given below.

- The Tobacco Board, under the Ministry of Commerce and Industry, Government of India, initially suspended ongoing auctions in both the FCV tobacco growing states of Andhra Pradesh and Karnataka in the third week of March 2020 and allowed gradual resumption of auctions only towards the end of April 2020. In Andhra Pradesh, only around 17 million kgs of the authorized FCV tobacco crop out of 136 million kgs valued at around Rs 2,000 crores was sold till end of May 2020, due to lockdown and delayed resumption of auctions. Similarly, in Karnataka, which had reached the last leg of auctioning in March 2020, the auction floors were shut due to Covid-19 lockdown with around 3 million kgs of the FCV tobacco left to be marketed (Tobacco Institute of India 2020; FAIFA 2020). This left the farmers with huge unsold stocks amidst fears of crop damage owing to prolonged storage in open fields and crash in prices due to the delayed auctioning of the perishable crop.
- Further, the Tobacco Board has announced a reduced crop size for the next Karnataka crop, downsizing it from earlier planned 99 million kgs to 88 million kgs. The Board may have to reduce the crop size for Andhra Pradesh also considering uncertainties in global market caused by the Covid-19 pandemic outbreak (Tobacco Institute of India 2020, FAIFA 2020).

Besides, farmers grapple with rising costs due to high labour charges emerged in this pandemic situation. In these aforesaid conditions, the future path of tobacco sector is gradually falling in uncertain zone. But, to secure future of tobacco sector and to improve livelihood of 45.7 million people dependent on tobacco sector, adequate attention needs to be given to improve the welfare of tobacco farmers and raise their farm income through alternative options.

As India is blessed with a wealth of crop diversity, crop diversification in tobacco growing areas is an

appropriate promising option. At the conceptual plane, diversification of agriculture may fall in the categories of shift of resources from farm to non-farm activities or shift of resources within agriculture from less profitable to more profitable crop/enterprise or use of resources in diverse but with complementary activities. Crop diversification provides the farmers with a wider choice in the production of a variety of crops in a given area so as to expand production related activities on various crops and also brings down the possible risk. Crop diversification in India is generally viewed as a shift from traditionally grown less remunerative to more remunerative crops. The determinants/drivers of crop diversification are given below.

- Social needs *i.e.* specific crop gaining momentum due to raising demand. For instance, ginger cultivation in Mysore district of Karnataka
- Higher profitability and also the resilience/stability in production also induce crop diversification, for example, area increased under potato (7.29%) and vegetables (5.75%) cultivation showed the progress towards diversification from food grains to more remunerative crops in Paschim Medinipur district of West Bengal (Debkumar *et al.*, 2016).
- Risk aversion, as agriculture is prone with all types of risks shifting to essential commodities having sustainable demand *i.e.* chillies, turmeric and ginger.
- Governmental policies and thrust on some crops over a given time, for example a) creation of the Technology Mission on Oilseeds (TMO) to give thrust on oilseeds production as a national need for the country's requirement for less dependency on imports. b) Tobacco Board policy driven crop regulation on Flue-Cured Virginia tobacco in Andhra Pradesh and Karnataka
- To increase system productivity, ensure food security and national importance. For Example, implementation of Pulses Seed Hub to promote food and nutritional security.
- Market infrastructure development and certain other price related supports also induce crop shift. Often low volume high-value crops like spices and other commercial crops aid in crop diversification. For example, area under rice cultivation in Baghpat district of Uttar Pradesh increased up to 15.85% and 84.21% during 1992-93 to 2002-03 and 2002-03 to 2012-13

respectively because of popularization of basmati varieties with charming market price (Surendra *et al.*, 2015).

- Crop diversification practiced in rainfed lands to reduce the risk factor of crop failures due to drought or less rains.
- Crop substitution and shift are also taking place in the areas with distinct soil problems. For example, growing of rice in high water table areas and promotion of legume crops
- Promoting crops due to other factors like price stabilization over the years, demand driven and export potential.

Although aforesaid factors that influence the area allocation decision of farmers are all important, but they obviously differ in terms of the relative importance both across farm groups and resource regions. In case of commercial crop like tobacco, crop diversification is slowly gaining momentum. Serious attempts are being made from many years in promoting crop diversification resulting in reduction of tobacco production, exports and ultimately consumption due to raising taxes. The policies relating to tobacco are becoming increasingly stringent around the world is given below.

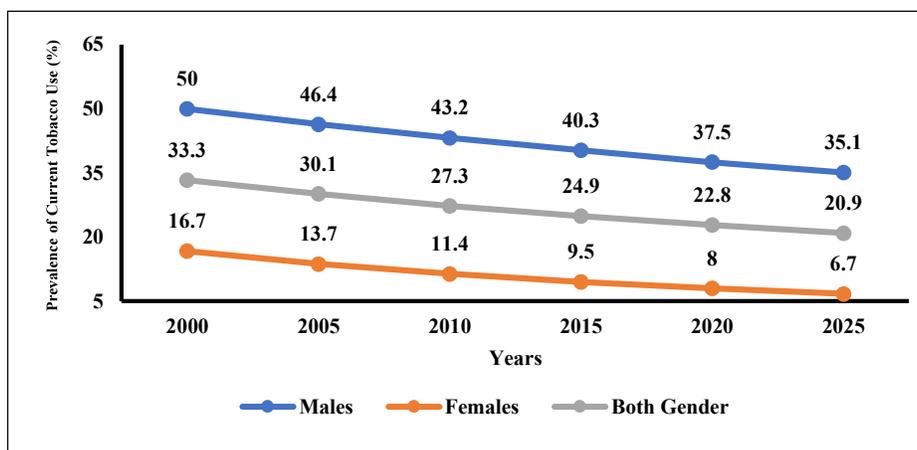
### **WHO-Framework Convention on Tobacco Control**

In the measures taken to protect from environmental tobacco smoke during 2018, overall 91% (165) of all parties had implemented measures to protect their citizens from exposure to tobacco smoke by applying a ban – either complete or partial – on tobacco smoking in indoor workplaces, public transport, indoor public places and, as appropriate, other public places. It resulted in decline of tobacco consumption. According to WHO global report on trends in prevalence of tobacco use for the period 2000-2025, In 2000, around a third (33.3%) of the global population (both genders combined) and aged 15 years and older, were current users of some form of tobacco. By 2015, this rate had declined to about a quarter (24.9%) of the global population. Assuming that current efforts in tobacco control are maintained in all countries, the rate is projected to decline further to around a fifth (20.9%) of the global population by 2025 (WHO, 2019) is given in Figure 3.

Besides, WHO observes the 31<sup>st</sup> May every year as World No-Tobacco Day (WNTD) to enhance public

**Figure 3: Global Trends in Prevalence of Tobacco Use by Gender**

Source: WHO (2019) global report on trends in prevalence of tobacco use 2000-2025 accessed on 15<sup>th</sup> June 2020



awareness about tobacco-related health hazards and discourage all forms of tobacco consumption. From policy perspective, India enacted 'The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act or COPTA' in 2003 to prohibit advertisement of, and to provide for the regulation of trade and commerce in, and production, supply and distribution of cigarettes and other tobacco products in India. Besides, the measures for crop diversification are being implemented in India are mentioned below.

### Initiatives for Crop Diversification in Tobacco Growing Areas of India

**I. Crop Diversification Programme of Ministry of Agriculture:** The Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) had made budgetary allocations from 2015-16 onwards as Central share under Crop Diversification Programme (CDP), an ongoing sub-scheme of Rashtriya Krishi Vikas Yojana (RKVY) to encourage tobacco growing farmers to shift to alternative crops/cropping system in tobacco growing states. Under CDP, tobacco growing States have given flexibility to take suitable activities/interventions for replacing the tobacco to alternative crops/cropping system as per the cost norms approved under any Centrally Sponsored Scheme/State Scheme. The States may also organize study tours/ exposure visits and campaigns etc. for highlighting harmful effects of tobacco and long-term benefits of alternative crops under CDP. State and year-wise budgetary allocations (Central share) made under CDP from 2015-16 to 2019-20 to diversify tobacco farming in the tobacco producing States is given in Table 1.

From the Table 1, data revealed that the per cent share for tobacco growing areas in the total 'Crop Diversification Programme' budget is increasing from 2015-16 onwards which shows the success in implementation of the programme. According to DAC&FW (2020) reports, the budget earmarked for CDP in tobacco growing areas for the year 2020-21 is Rs 1000 lakhs.

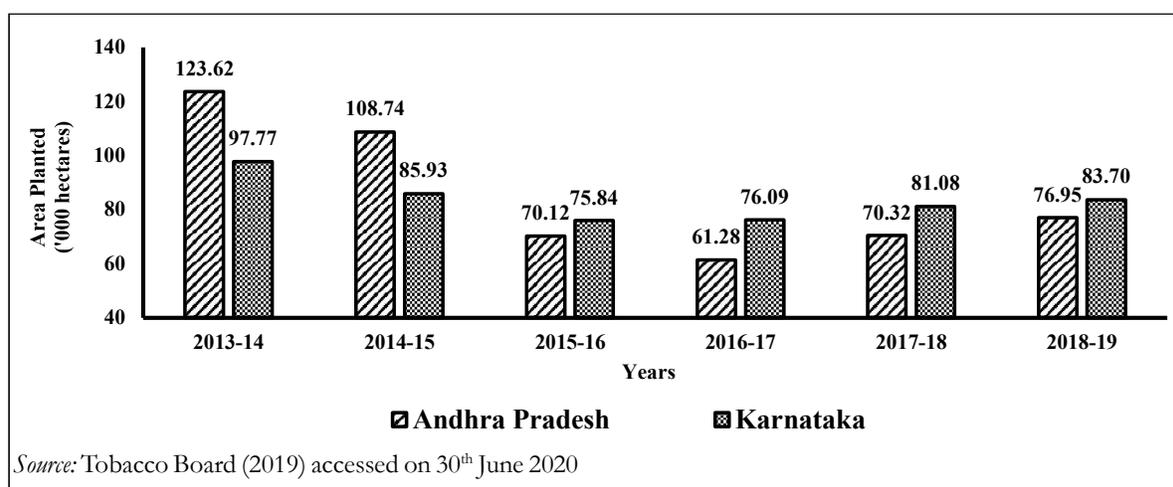
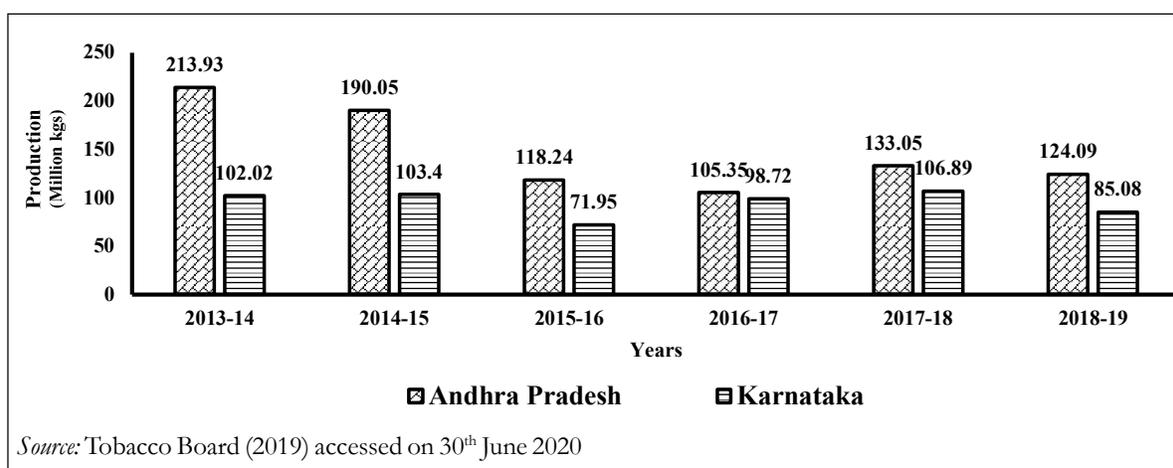
**II. Crop size fixation by Tobacco Board under Ministry of Commerce:** Crop regulation by Tobacco Board is demand driven and as per the demand and supply of FCV tobacco in domestic and international markets. Moreover, the Government of India had frozen the upper ceilings limits of crop size and Tobacco Board is regulating the FCV tobacco cultivation in and around the recommended limits. The Board had undertaken a focused Production Regulation Campaign during 2015-16 crop season especially in Andhra Pradesh to prevent excess/unauthorized production of FCV tobacco through personal contacts, group meetings in the villages and mass contact programmes. A total of 70,122 ha. was planted in Andhra Pradesh under FCV tobacco as against 1,08,737 ha. planted during 2014-15 crop season. The decline in area is about 36% which is a breakthrough in crop regulation (Tobacco Board 2015). Trends in area planted and production of FCV tobacco in A.P. and Karnataka are given below in Figure 4 & 5.

Moreover, anticipating drop in global demand, Tobacco Board in India has recently reduced FCV tobacco crop size by 12% i.e., from 100 M kg to 88 M kg for ensuing crop season (2020-21) in the state of Karnataka. The Board may reduce the crop size for next season crop in Andhra Pradesh also in view of the massive disruptions in trade. The trend in tobacco exports fluctuates due to production policy measures.

**Table 1: Year wise budget allocation (central share) for CDP in Tobacco Growing Areas (Rs. in Lakhs)**

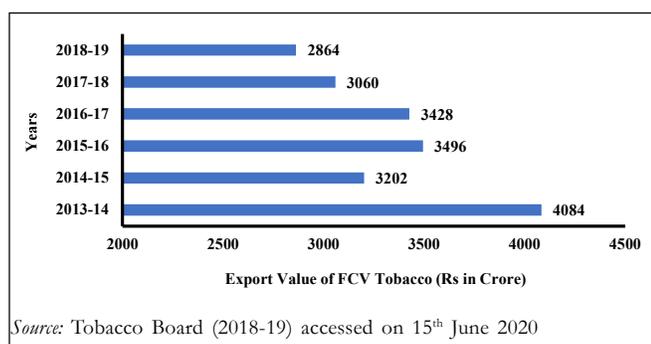
State	2015-16	2016-17	2017-18	2018-19	2019-20
Andhra Pradesh	787	945	210.1	210.1	212.96
Bihar	67	80	17.8	17.8	17.80
Gujarat	754	905	201.23	201.23	201.23
Karnataka	600	720	160.08	160.08	160.08
Maharashtra	11	13	2.86	2.86	0.00
Odisha	9	11	2.45	2.45	2.45
Tamil Nadu	20.5	24	5.33	5.33	5.33
Telangana	38.5	47	10.47	10.47	10.47
Uttar Pradesh	143	172	38.21	38.21	38.21
West Bengal	70	83	18.47	18.47	18.47
Budget allocated for CDP in Tobacco growing areas	<b>2500</b>	<b>3000</b>	<b>667</b>	<b>667</b>	<b>667</b>
Total Budget allocated for CDP (central share)	<b>15000</b>	<b>18000</b>	<b>4000</b>	<b>2000</b>	<b>2000</b>
Per cent share for tobacco growing areas in total budget for CDP (%)	<b>16.67</b>	<b>16.67</b>	<b>16.675</b>	<b>33.35</b>	<b>33.35</b>

Source: DAC&FW (2020), Press Information Bureau (2019)

**Figure 4: Trends in Area Planted under FCV Tobacco in AP and Karnataka****Figure 5: Trends in FCV Tobacco Production in AP and Karnataka**

## Tobacco Exports

Indian total tobacco exports have crossed Rs 6,000 crore during 2018-19. Tobacco exports during 2018-19 have gone up by 4% in terms of quantity and 8% in terms of value in rupees as compared to the exports made during the 2017-18 (Tobacco Board 2019). But, declining trend was observed in FCV tobacco exports (fig 6) across the years (2013-19). Overall, the decline in FCV tobacco exports was compensated by the growth in Non-FCV segment to the total tobacco exports.



**Figure 6: Export value of FCV tobacco for the period 2013-19**

As FCV tobacco exports also started downfall due to stringent anti-tobacco campaigns, further Indian tobacco consumption and exports may dip by 20 per cent due to Covid-19 lockdown (The Economic Times 2020; The Hindu 2020).

## Possible candidate crops/next best crops in tobacco growing regions

Since tobacco itself is a commercial crop, the other crops already having substantial area and sustainable local demand can be the next best crops to tobacco. In future, high value medicinal and commercial crops change the future of agriculture. High value commercial crops and commercial agriculture assume a greater significance in the efforts to increase farm incomes. Commercial agriculture not only caters to the domestic market but has also been one of the major earners of foreign exchange for the country. The research conducted at ICAR-CTRI has identified some high value commercial crops based cropping systems in tobacco zones. The details are furnished below in Table 2.

In tune with identifying crop diversification options, besides other possible crops, studies are also being conducted with medicinal plants at ICAR-Central Tobacco Research Institute *i.e.* on *Gloriosa Superba*, in chewing tobacco growing areas of Tamil Nadu.

At present the commercial crops like chillies, ginger and turmeric are grown extensively and these crops suits well to the bio-physical environment of tobacco growing regions. Crop diversification with these commercial crops further adds value in terms of creating diverse income sources, price stability and high net returns to the farmers. Beside boosting immunity levels, these crops have huge export potential in the world. Item wise export in terms

**Table 2: High value commercial crops based cropping systems in tobacco zones**

Tobacco growing district/ Research Station	Existing System	Possible New Cropping Systems	
		Tobacco Based	High Value Commercial Crops based
East Godavari, A.PICAR-CTRI, HQ, Rajahmundry (Vertisols)	Fallow-Tobacco	Minor Millet-Tobacco	Minor Millet – Chilli /Turmeric + Red gram
West Godavari, A.PICAR- CTRI RS, Jeelugumilli(Irrigated Alfisols)	Fallow-Tobacco	Minor Millet-Tobacco-Ground nut as relay crop in tobacco	Turmeric - Pulses
Prakasam, A.P, ICAR-CTRI RS, Kandukur (Rainfed Vertisols/ Alfisols)	Fallow-Tobacco	Minor Millet-Tobacco	Castor - Pulses/Minor Millet - Castor
Guntur, A.P, ICAR-CTRI RS, Guntur (Rainfed Vertisols)	Fallow-Tobacco	Pulses-Tobacco	Chilli - Chick pea/Castor - Chick pea/Turmeric - Pulses
Dindigal, TN, ICAR-CTRI RS, Vedasandur (Sandy loams, Inceptisols)	Fallow-Tobacco	Millet-Tobacco/ Tobacco+Annual Moringa	Turmeric + Annual Moringa
Cooch Behar, WB, ICAR-CTRI RS, Dinhat (Alluvial soils, Entisols)	Aman Rice-Tobacco	Aman Rice-Tobacco	Turmeric - Pulses

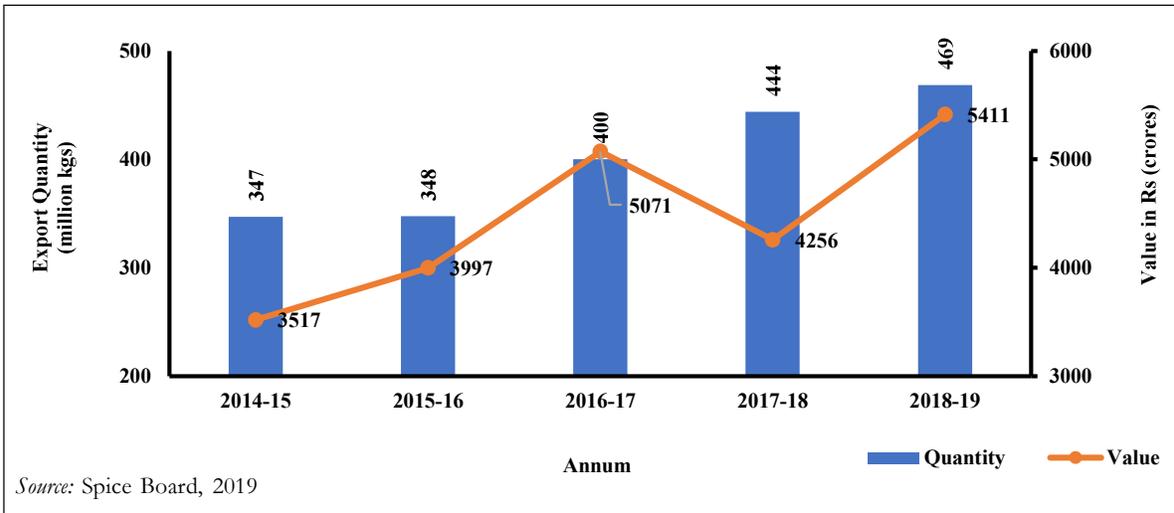


Figure 7: Export quantity and value of Chillies for the period 2014-19

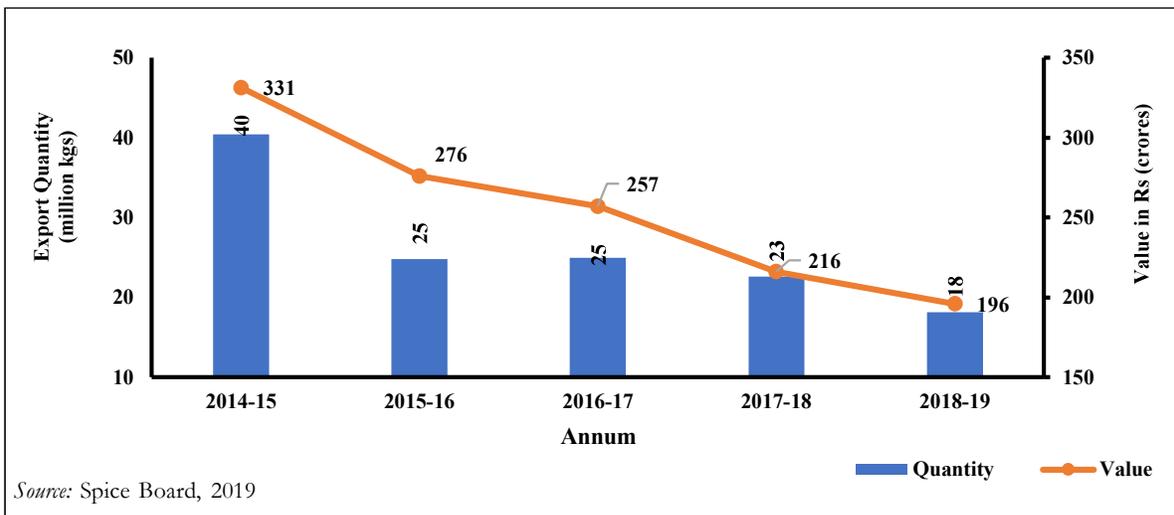


Figure 8: Export quantity and value of Ginger for the period 2014-19

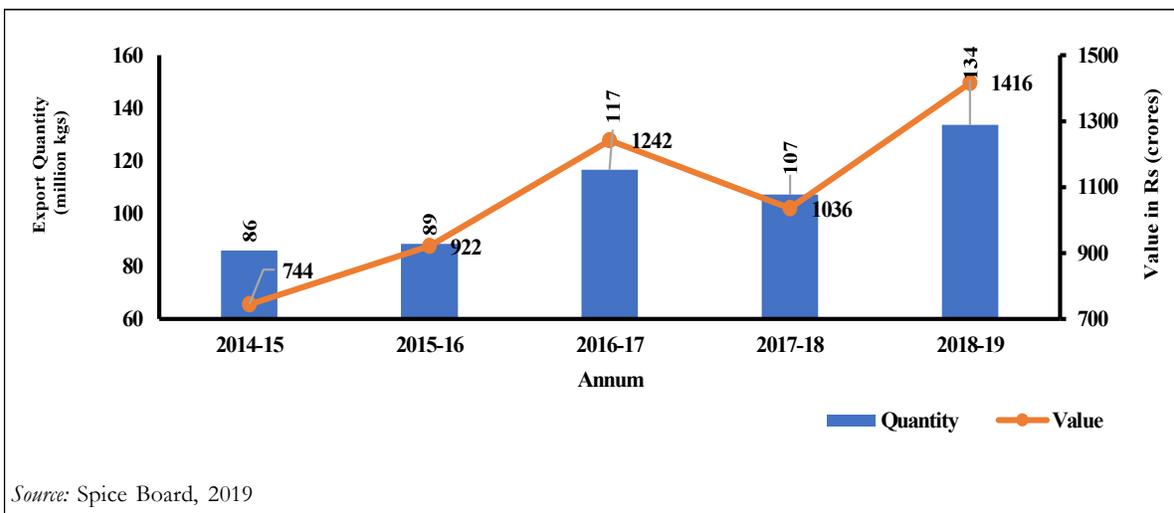


Figure 9: Export quantity and value of Turmeric for the period 2014-19

of quantity and value for chillies, ginger and turmeric from India for the period of last 5 years is given below in Figure 7, 8 & 9.

#### Future thrust areas

- Due to stringent international policies, government of India earlier started initiatives in this line by implementing crop diversification programme in tobacco growing areas since 2015 and crop area size fixation policy by Tobacco Board. Hence, these programmes and policies should be further intensified by allocating more budget, rigorous measures, for gradual phase out of tobacco size area.
- With the advent of Covid-19 pandemic, tobacco consumption is expected to decline further as tobacco consumers are generally reported to be more vulnerable to health risks in terms of infection, severity of symptoms and mortality. The declining demand is expected to reduce the tobacco production in future. It is already evident from the fact that the Tobacco Board in India has recently reduced FCV tobacco crop size by 12% i.e., from 100 M kg to 88 M kg for ensuing crop season (2020-21) in the state of Karnataka. The Covid-19 pandemic has triggered emergence of “Tobacco New Normal” characterized by increased public awareness of tobacco hazards, strict enforcement of tobacco control policies and decreased tobacco demand and supply. In response to building New Normal, tobacco crop would experience a gradual phase out and preference to commercial crops like ginger, turmeric and chillies as components of the crop diversification.
- As perception of farmers don't change immediately to shift from tobacco to other crops, incentives in the form of free seed distribution and highly subsidized chemical inputs for certain period of time should be given to those wish to shift from tobacco to other crops as a token of motivation
- One thing that demarcates tobacco cultivation from other crops is timely loan facility extended to the growers. The same type of financial assurance could be extended to those shifting to commercial crops.
- In the recent times, the Government of India has been laying more emphasis on sustainable increase in farmers' income (with a specific objective of doubling it by 2022) to ensure the overall well-being of the agrarian community. Crop diversification, value

addition and export promotion are some key areas that help augment the farm returns. Crop diversification is generally considered as an overarching gateway for sustaining farm production and farmers' income. Therefore, shifting tobacco to other commercial crops can be one of the excellent strategies to meet this goal

- COVID-19 has emphasized the need for ensuring hygienic surroundings. Government of India implemented strict ban on spitting of chewing tobacco products in public places and there is likelihood of restriction on ban in post Covid-19 period as well. Therefore, shifting from tobacco to other crops can maintain hygiene in public places which is also in line with Swachh Bharat Abhiyan.

#### CONCLUSION

Although tobacco is commercial crop and farmers are immensely benefitting from net returns, but the effect of past and current enacted policies on tobacco control coupled with the current assumption that smokers are more vulnerable to Covid-19 has serious implications on future tobacco sector. From the findings, downward trend is observed especially in value of FCV exports due to continuous tobacco cultivation area reduction and freezing of production size policies of Tobacco Board. At present, as there are cross boarder closures by different countries around the world, there will be serious impact on future tobacco exports which further hits the returns to the government and to the tobacco growers. The study concluded that, presently with the advent of Covid-19 pandemic and emergence of new normal situation in tobacco, it will result further in decline of tobacco consumption, drop in funds to tobacco research support, farmers unable to get fair price due to decrease in demand for tobacco exports leads to fall in net returns to the growers. Therefore, India needs to turn Covid-19 into an opportunity to shift from tobacco to other high value commercial crops having export potential to secure the future and to provide the assured pathway to farmers dependent on tobacco sector.

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