

Challenges in Shifting from Tobacco: Perceptions of Tobacco Growers from the Major Tobacco Growing States in India¹

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1 Introduction

Tobacco is an important cash crop grown in India in around 12 states in about 4 lakh hectares, which constitutes less than one percent of net sown area of the country. Andhra Pradesh, Bihar, Gujarat, Karnataka, Tamil Nadu, Telangana, Uttar Pradesh (UP) and West Bengal (WB) are the main tobacco producing states contributing to around 99% of the tobacco production in India. The issue of reducing tobacco cultivation came up to the forefront with India signing the Framework Convention on Tobacco Control (FCTC) in 2004. Since tobacco consumption is of addictive nature and causes adverse effects on the health of the consumers as well passive smokers it became a subject of this international public health treaty, which binds countries to implement tobacco control measures and reduce its consumption and production gradually over the years. Articles 17 and 18 of the FCTC specifically deal with the issues of providing alternative and viable livelihoods to tobacco-dependent workers and, the protection of environment and health of the persons due to tobacco cultivation and manufacturing. Article 17 specifies that “Parties shall, in cooperation with each other and with competent international and

Disclaimer- The statements made in this paper except those in introductory and conclusion parts represent solely the perceptions of tobacco farmers in selected tobacco growing states.

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regional intergovernmental organizations, promote, as appropriate, economically viable alternatives for tobacco workers, growers and, as the case may be, individual sellers”[WHO 2005]¹. The government of India also enacted the “Cigarettes and Other Products Act, 2003”, which bans smoking in public places, bans the sale of tobacco products near educational institutions and bans advertisement of tobacco products. In 2013, many states including Karnataka banned the production and sale of gutkha a chewing product popular in the country. Later in 2016, Karnataka also banned the sale of flavoured chewing tobacco sold in sachets.

The tobacco control measures and the ban on gutkha seem to have some effect on tobacco cultivation across the country although direct linkages are not established in this connection. Farmers in tobacco growing regions are in a state of confusion. Farmers are aware that there are some developments across the country to curb tobacco consumption and production. But, they do not know what steps the government may take in the future in this regard. They are neither prepared to give up tobacco nor ready to say ‘No’ to the government in case it wants to reduce tobacco cultivation. Farmers are also unaware of alternative crops, the returns they may bring in and the market for such crops. While some of them seem to be taking the stand of “Let’s Wait”, others say “Let’s Fight” when the time comes.

Shifting from the tobacco crop has been a tough task due to relatively higher returns from tobacco crop in comparison to other crops. Farmers like any other rational beings go by the economics of agricultural operations. Research studies do indicate the feasibility of alternative crops to tobacco for different agro-climatic zones. But, most of them have stayed at the demonstration level with no institutional efforts being made to try alternatives on a large scale.



Bidi tobacco crop



FCV tobacco crop

Farmers are the masters of their choices. They know what to grow and how to grow in terms of traditional crops that they are growing for generations. They inherit these skills from their forefathers. Although they are sceptical about the returns, farmers are open to experimenting with new crops. But, to accrue maximum benefits from an experiment with new crops, exchange and impart of technical know-how is a must. But, there are instances wherein in tobacco growers in some of the regions have voluntarily shifted to other crops successfully and continue to grow them. Availability of irrigation, hardships in cultivating tobacco and technical know-how and financial support from agencies like state horticulture and agriculture department, international agencies, NGOs and, the demonstration effect of neighbour's agricultural practices have been the influencing factors in promoting alternative crops.

2 Methodology

In the background of the discussions placed above, an attempt was made to know the views of tobacco growers in selected regions of major tobacco-growing states in India with reference to the availability of alternative crops, reasons for growing tobacco, farmers' willingness to shift to other crops, their demands, etc. We arranged focused group discussions in areas with a higher concentration of tobacco growers and we selected major states growing tobacco viz. Andhra Pradesh, Bihar, Gujarat, Karnataka Uttar Pradesh and West Bengal. Although a small checklist was administered to the group, it was more of an open discussion. State-wise perceptions of tobacco growers on tobacco crop and alternatives are discussed in the following section.

3 Results: Perceptions of Tobacco growers

3.1 Andhra Pradesh

Village level discussions held with tobacco growers in villages of Kurnool and Prakasam of Andhra Pradesh state revealed that water availability determines crop choice and, farmers with limited water resources have a greater dependency on tobacco. Tobacco is grown in rainfed conditions and farmers consider tobacco as a most viable and secure crop in low fertile soils and rain-fed conditions as there are higher risks and incidence of crop loss in other crops (e.g., red

gram). However, farmers in some villages from black soil areas reported a reduction in the tobacco area. These farmers felt that tobacco cultivation depletes soil nutrients at a much faster rate than many other crops, thus rapidly decreasing the fertility of the soil. Tobacco farming is not the sole source of revenue to households. The fact that only one-third of the total cultivated area is under tobacco in the above region suggested that farmers have the experience of growing other crops and were aware of options for shifting to other crops. Villagers reported that the Tobacco Board, which acts as an important trigger being a source for informed market and assured linkages with financial institutions was the main factor contributing to tobacco cultivation. In addition, tobacco companies extended support to farmers in growing tobacco by providing inputs, credit and technical support and in such cases, the companies also declared rates in advance, which also motivated farmers to continue tobacco cultivation.

Farmers said that since the department of agriculture had no role in FCV tobacco cultivation, this non-linkage may hinder the promotion of alternative crops. Among the various reasons cited by the farmers for cultivating tobacco, the profitability aspect was overwhelmingly dominant. It emerged from discussions in Kurnool and Prakasam districts that average annual income per household was higher for the tobacco growers than that of growers of other crops. As a result, farmers are tempted to go for tobacco cultivation. Another factor that stops farmers from shifting to other crops is an investment made on the barn. Farmers have to maximise its use in order to get returns on the investment made on the barn. Moreover, tobacco provides a guaranteed market and ready cash. Unlike other competing food crops, farmers said that the tobacco crop is non-perishable and can be easily stored.

There were also new entrants to tobacco cultivation in this region who are generally marginal farmers. These farmers do not feel the pinch of the high cost of tobacco cultivation since they put in all their household labour in the process. They get a high gross return. A large proportion of farmers engaged in FCV tobacco cultivation are tenant farmers. A small percentage of farmers are willing to give up cultivating tobacco, as they are vexed with repeated losses from growing tobacco. But, these farmers are not aware of any other economically beneficial crops that can replace tobacco. Farmers reported that around 5% of tobacco growers had already diversified crops in order to move out of tobacco cultivation. Farmers have been trying with alternate crops but, with little success. For instance, in Prakasam district farmers said that they had tried cotton between 1980 and 1990. But, turned back to tobacco in the 1990s due to failure of cotton.

Farmers also had started growing Bengal gram since 1992 and the area under Bengal gram has grown substantially since then. Farmers with water resources are growing paddy, vegetables, etc. Mango orchards, guava, eucalyptus, sababul have emerged as important options to the farmers. While the paper industry has largely contributed to the expansion of eucalyptus and sababul plantation, the incentives and promotional activities of horticulture department have led to the expansion of area under mango, guava and amla (Indian gooseberry).

3.2 Bihar

Tobacco, wheat, paddy and maize are the main crops grown in the selected villages from Muzaffarpur, Vaishali and Samastipur districts in Bihar. Farmers' group in all the villages were not happy with the idea of shifting to crops other than tobacco as farmers in some of the villages who had shifted to other crops had reverted back to tobacco. And in one of the villages, farmers were not happy with wheat and mustard that they were growing as the returns had been lower for these crops. Overall, all the village groups (100%) with whom discussions were held disagreed on shifting. So it is unlikely that the farmers from these villages may shift to tobacco in the near future. The villages where tobacco is grown also have large irrigated areas. Farmers' groups from the villages, which have 100% irrigation are also not interested to give up tobacco. Due to frequent flood, some of the villages cannot cultivate alternate crops.

3.3 Gujarat

In Gujarat out of 22 villages covered under the study, the extent of irrigation varied from 20-60% of total agricultural land the average being 34%. Overall, out of 22 farmers' group meetings held at the village level, the willingness to shift came from only 9%. But, there was a positive response from farmers' groups in all the villages to reduce the land under tobacco. And in 17 villages (77%) farmers reported that a few had shifted voluntarily from tobacco to other crops. The number of households having shifted ranged from 6 to 70 households, overall their share being less than 5% of total households in respective villages.

Discussions with a group of tobacco growers in Valvod village in Borsad taluk of Anand were held during the time when Gujarat government had put a ban on Gutkha in 2012. The news had reached them through the newspaper, radio/TV and internet. Farmers said that the benefit from tobacco production was much more than the benefit from other crops and its market was easy to achieve. Moreover, they said that while other crops were often destroyed by animals such as

Nilgai, pigs, etc., no special precautions were needed for tobacco. Therefore most of the farmers of this area preferred to grow tobacco than other crops. And, it is a known fact that despite the gutkha ban, the area under tobacco has drastically increased in Gujarat. And the increase in area under tobacco was more than 50% in 2014.

But farmers in other districts like Anand expressed their willingness to give up tobacco cultivation if suitable incentives and support were provided by the government. The shortage of labour and low price of raw tobacco prevailing then, which was also not in proportion to the rise in the cost of its cultivation were the reasons behind their willingness to shift from tobacco. Farmers were in favour of shifting to sugarcane crop provided government supports the establishment of sugar mills. In the past tobacco farmers in these areas tried to cultivate sugarcane extensively because sugar mills were functional in this region. But, later due to the closure of sugar mills in some areas, farmers replaced sugarcane with tobacco cultivation. Farmers opine that they can revive sugarcane cultivation if the defunct sugarcane factories are revived. Farmers of Anand district are almost educated and know about the bad effects of tobacco on human health. They are ready to switch over to other crops in future. Many farmers who were growing crops such as millets, paddy, maize, jowar, etc. had to return back to tobacco due to failure of other crops and their lower prices many times.

Many farmers sell their tobacco through Anand farm production market committee and some direct contact traders for selling tobacco. There is a good rate for tobacco and the processed tobacco is generally sold immediately. Farmers said that they are growing tobacco since their ancestral time and get very good returns from this crop. They are ready to grow (almost 50% of them) other crops if returns are assured to them, but they anticipate a huge loss in other crops.

3.4 Karnataka

In Karnataka, out of 42 village level group discussions on shifting from tobacco cultivation, willingness to shift came from only 36% of the groups. But, if the responses are broken according to the type of tobacco and region, then it was found that 71% of the village groups expressed their willingness to shift in bidi tobacco region as against only 29% of the groups willing to shift in FCV tobacco region. Average irrigation varied from 5% to 75% in the sample villages the average being 34%. Farmers' groups even in villages with 90% irrigation in Hasan district and 75% irrigation in Mysore district (both FCV tobacco growing villages) were not willing to give up tobacco.

FGD with Bidi Growers, Akkol, Belgaum district, Karnataka



Source: CMDR, Dharwad

In bidi tobacco region of Hukkeri and Gokak taluks, farmers were growing baby corn, vegetables, soybean, jowar, etc., and were happy with these crops. They were willing to give up tobacco. In Chikkodi taluk, there were both categories of groups. Those who were having irrigation were growing sugarcane and vegetables and were ready to give up tobacco cultivation. Around 50% of farmers in this taluk were ready to reduce land under tobacco or gradually shift but were not ready to give up completely and immediately. Those who have irrigation have already reduced their land under tobacco. Tobacco is a short period crop, therefore farmers feel that they can raise two/three crops including tobacco in a year.

In a similar group discussion with Akkol area of Nippani tract in Chikkodi taluk of Belgaum district in Karnataka, farmers were very proud of the variety of tobacco they grow. Overall the farmers of bidi tobacco growing region in Karnataka feel that the bidi tobacco grown in this region, particularly Akkol village is world class because of its soil and cannot be grown elsewhere in the world. It has flavour, taste and burning quality. It is used as a blend of cigarette making and exported to other countries. They wanted the government to retain this variety and encourage the cultivation for export purpose. Another unique feature of the soil in this region is that it enables the growth of leaves and the plant, but not the fruit for e.g. the plants of soybean, groundnut develops well, but do not yield soy and ground nuts in expected quantity. Bidi tobacco plant grows well and yields leave of good quality and large size. Therefore they wish bidi tobacco from this area should be continued to grow as an exceptional case and can be used for other purposes such as drugs, fertilisers, seed oil, paints, protein, etc. They are aware of the

alternative uses of tobacco and emphasize that the government should enhance its research in this area.

When we posed a question to farmers why they cannot shift to paddy, sugarcane, fruits, vegetables, plantations, etc, which had shown to yield higher returns (as per the results of the empirical study carried out before organizing the group discussion), farmers gave the following reasons; Firstly, the returns from crops such as vegetables, fruits and plantation crops are uncertain and for the later two crops there was gestation period during which farmers had to sustain without yield. Secondly, crops like paddy and sugarcane including vegetables and plantation crops require irrigation and those who had irrigation had already shifted to paddy. Whereas farmers without irrigation grow tobacco along with food crops, which is planted in August and harvested at the end of January. Moreover, farmers felt that sugarcane if grown continuously will reduce soil fertility and the yield may reduce to a quarter. Because of this farmer indulged in shift farming by growing other crops for a year in between sugarcane plantations. Power was also a major problem in rural areas and it was difficult for farmers to follow irrigation. They are ready to pay the electric bill and do not want an interruption in power supply, which is usually regular at night. It should be noted that those who have irrigation are comparatively well off. Thirdly, the problem of transport in connecting the fields to the village is a major problem in this region. The members of the association said that although the government had sanctioned road, some farmers were not cooperating as the road will pass through their field taking away a large portion of the land. Another reason is that the farmers know that the government would give them meagre amount as compensation for giving their land for the roads. So connecting road in fields is a major problem in this region. Therefore farmers are not interested in growing sugarcane and banana as it would be difficult to transport them to the vehicles, whereas tobacco leaves can be put in big bags and unloaded by carrying it on bicycle or overhead. Fifthly, bidi tobacco is marketed in the village. Traders collect the produce from the doorstep and therefore farmers do not have major transport cost and tensions of sale. They prefer such kind of local market to be facilitated if the government pushes farmers to grow other crops. Lastly, an important demand of the farmers, which is important for policy decision regarding reduction of tobacco production and control is their demand to meet or compensate for the amount equivalent to average returns per acre/ha (taking the average returns for the past three years from tobacco) to all the farmers who shift from bidi tobacco to other

crops in case of crop failure or low returns at least in the first three experimental years. This is because they feel that minimum prices may not help farmers if the yield per acre/hectare from alternative crops is low. And if the inputs costs are higher, Minimum Support Price (MSP) would not help them. Therefore they want assurance of minimum return per acre/hectare, which amounts to compensation in terms area cultivated by the farmers. And over the years they hope the government would facilitate improved roads and marketing system for other crops in the region. They are chaotic about the market for other crops as they anticipate huge supply all of a sudden if, all farmers shift to other crops in tobacco growing regions.

Similar are the challenges expressed by tobacco growers in FCV (cigarette) tobacco growing region of Karnataka. Farmers have been trying ginger, turmeric, floriculture, sericulture and other alternative vocations such as goat rearing, etc. Although the returns are higher and the cost of cultivation is lesser than the costs for tobacco, farmers said that the market for these crops was volatile and farmers lacked technical know-how, investment capacity and guidance for alternative vocations and crops. For e.g. ginger, which fetches good returns for one or two years falls down suddenly. In 2013, ginger farmers could not even get the minimum price. They could not get labourers or were unable to harvest the crop and the crop was just left on the field to perish. And the alternatives grown by some of the farmers were fetching good prices as the quantity supplied was less. Farmers felt that if all the farmers start growing alternative crops the prices may come down due to excess supply, which they say is rare in tobacco, wherein even the excess crop grown over and above the authorised amount gains good price. Farmers said that those who tried floriculture and calf rearing had to suffer a huge loss due to lack of technical support. They said that banks give loans if the farmers have land but without proper guidelines and training. One of the farmers who tried sericulture with drip irrigation also faced losses as the climate was not suitable for the growth of silkworms within the cocoons. In such cases, farmers are helpless and do not know the technical solutions. Tobacco growers feel that all the programmes of the government (Departments of Agriculture/Horticulture/Animal Husbandry) lie on papers and fail to reach the farmers in need, unlike Tobacco Board, which reaches out to tobacco growers. Therefore tobacco growers are not interested in taking the risk. Moreover, ginger, turmeric and paddy, which yield higher returns than FCV tobacco, require irrigation.

**FGD with members of State Level Federation of Tobacco Growers Association in Karnataka
[Mysore district]**



Source: CMDR, Dharwad

3.5 Uttar Pradesh

Village level discussions were held in 7 villages of UP. Except for farmers' group in Vijedepur of Etah district all other groups (86%) indicated their difficulty and unwillingness to shift from tobacco cultivation. In Vijedepur, those who were growing vegetables were happy with the returns. But, farmers in Nagla Raghi and Nakduru (Kasganj district), Bhaisari, Mistani and Mahamedipur (Farrukhabad district) and Junaidpur (Etah district) had reverted back to tobacco as there were no good returns from wheat and mustard. Percentage of irrigation varies from 50-100% in these villages. But, farmers' groups felt that irrigation potential was not utilised fully and efficiently. Since many villages had 100% irrigation there was scope for multiple crops. Farmers in these villages were growing tobacco, paddy, maize, mustard, wheat, bajra and vegetables. Agriculture is the major source of livelihood of rural people in Uttar Pradesh. This is true also in tobacco growing districts of the state. In the western region of the state, cultivation of tobacco has emerged as one of the prime agricultural crops in certain districts of the region. In these districts, like elsewhere in the state, the size of farmland has gradually become smaller over the year. As a result, the farmland has been reduced mostly to marginal and small size. In this situation, farmers are bound to cultivate those crops, which provide them relatively higher net income. Village level discussions with farmers in Etah, Farukhabad and Kasganj districts revealed that tobacco growers earned an average net income of Rs.30,000 per acre, which was much higher as compared to Rs.10,000 average net income gained from the cultivation of wheat

and Rs.16,000 net income gained from the cultivation of mustard per acre for that reference year. Sugar cane cultivation, which is also one of the main crops, provided an average income of Rs. 50,000 per acre. However, sugarcane is the whole year crop. In this situation, tobacco growers felt that they earn much more income from tobacco in comparison with the cultivation of other crops. There is easy and assured loan availability by the contractors and wholesalers located in Kayamganj tobacco market of Farrukhabad district while tobacco growers face many difficulties if they desire to get loans from banks and other institutional sources. On account of both of these factors (higher net income from tobacco cultivation and easy availability of loan from non-institutional sources) tobacco farmers are generally not inclined to shifting to the cultivation of other crops. Discussions with some farmers who had left tobacco cultivation in the past revealed that they had reverted back to tobacco cultivation because of the relative profitability of tobacco cultivation and easy availability of loan. In this context, farmers feel that shifting is possible only if the returns per acre from sugarcane and mustard are increased through research and extension services. Tobacco farmers are also required to be made aware of obtaining and using the Kisan Credit Card (KCC) in order to offset the easy availability of loans from non-institutional sources to tobacco cultivation.

3.6 West Bengal

Village level discussions in West Bengal were held in Dashagram and Ekmukha villages, which fall under the jurisdiction of the Chilkirhat panchayat in Cooch Behar district in the north of WB. This region falls under the Dinhata region, which is the oldest tobacco-growing region in the state. The rural folk here mostly belong to the Islamic following. They have been engaged in tobacco cultivation for generations, and this has been handed down to them by their ancestors. The type of tobacco grown in this region is mostly chewing tobacco or khaini. Cultivators remain engaged in the field round the year. The crops grown in this region include wheat, paddy, jute, mustard, potato and tobacco. Tobacco cultivation takes place during the winter months that is October through December along with potato. During the months of summer and monsoon, it is predominantly rice and jute. Cultivators are of the opinion that wheat and jute cultivation have not been good for the land as the soil suffers deterioration in quality when these crops are grown. They complained particularly about the steep rise in the prices of inputs – fertilizers and insecticides – as a result of which farmers were finding it increasingly challenging to engage in the cultivation of potatoes, paddy, wheat and jute. The cost of cultivation has gone up so much

that cultivators were often able to just break even. Under the circumstances, they felt that the cultivation of tobacco, at least over a portion of their land offers them with a dependable and steady source of income.

The cultivators of tobacco were aware of the health hazards connected with tobacco cultivation, particularly breathing problems when tobacco leaves were hung up for drying. In fact, the scent of the tobacco leaves is so strong even when they are ripe that only those who are used to growing tobacco can manage to carry on the work during the time of harvest. Some of the farmers alleged that while tobacco has its harmful effects, a more harmful crop which is being harvested in the region, is opium. They feel that the government should contemplate measures to restrict the cultivation of opium before it gets busy with finding alternatives to tobacco cultivation. Some tobacco growers have shifted to the cultivation of paddy and potato and even explained their aversion to tobacco cultivation because they are aware of the health hazards associated with tobacco cultivation, particularly as a cause for cancer. In certain cases, the income derived from the cultivation of crops like paddy and potato was supplemented by self-owned businesses like tailoring and pan-shops. There is also subsidiary/supplementary income derived from livestock maintenance, which also aids domestic consumption in the form of milk and eggs. For the younger generations, profitable livelihood options alongside agriculture included self-employed businesses like tailoring, business in hardware, etc.

Farmers were feeling frustrated as agriculture seemed to have become increasingly challenging, which is why there were many cases of migration, particularly on the part of younger generations. Many houses were found to be locked. Members had migrated to other cities. Children are used as labour on land and aid performance of domestic chores, which is a disincentive to education. There are local madrasas but they are often empty. Most families also found it difficult to afford private tuition for their children. Tobacco growers use family labour for cultivation as skilled labour is required for tobacco cultivation. There is also lesser availability of hired labour. Tobacco has crept in as a major alternative because of the differences in the cost of cultivation. For instance, potato required approximately Rs 10000 for a plot of 0.3 acres of land, while for the same piece of land under tobacco, the investment made was maybe Rs.5000 approximately, which is more manageable for the average cultivator. The soil in the region is good for jute, but there was a dearth of market. Therefore farmers feel that the government should boost the demand for jute by interventions like a ban on plastic bags,

export promotion, enhanced tax subsidies to jute industries, etc., as jute products are costlier. Farmers said that if the land is left fallow between January and March, it will elevate the quality of the soil and promise a better yield for jute which could be cultivated between March and June, and the yield could be between 3 to 4 quintals per 0.3 acres of land, but then it must also fetch a price of Rs. 4000/- per quintal for the whole endeavour on the part of the cultivator to be attractive and feasible. Otherwise, the cultivator will have no option but to grow tobacco. Although there were some jobs offered by the Forest Department and employment opportunities available in nearby towns like Cooch Behar and Dinhata, by and large, there was a dearth of industries in the region. Shifting from tobacco appeared to be a difficult task as there was a general dearth of employment opportunities in the region as no industries are being set up. Therefore, there is large scale migration from this region.

4 Discussion and conclusions

The focussed group discussions with farmers and their representatives in six main tobacco-growing states viz. Andhra Pradesh, Bihar, Gujarat, Karnataka, Uttar Pradesh and West Bengal reveals that there are different kinds of barriers or challenges in shifting from tobacco.

There are **institutional barriers** that include the differential treatment in lending loans for other crops, preferential treatment for tobacco growers by government organisations through the provision of inputs at lower costs, easy credit and marketing channels. **Natural barriers** include climate, soil conditions, lack of irrigation and lack of technical knowledge base/experience for alternative crops. **Economic barriers** are the most important from the point of farmers who are carried away by the gross returns they get from the sale of tobacco. In consideration of the revenue they receive from tobacco, farmers forget or do not mind about the labour that they have put in, the hardships and are not worried about the implications of health hazards of tobacco cultivation, which are not convincing to them. Other economic factors that prevent any effort on the part of the government to reduce tobacco cultivation is the consideration of huge employment that the tobacco industry supports covering bidi rollers, tendu pluckers, workers in the processing industry, cultivation, retailers, etc. In addition, the politics of power and industry lobby play a major role against taking positive measures to control tobacco production.

According to farmers any intervention to reduce tobacco should be done in phases and applied to all kinds of tobacco in the country. They suggested that the quotas be fixed for each farmer as in

the case of FCV tobacco and this quota can gradually be reduced over the years. If tobacco is banned suddenly, they feel it could lead to disaster with many farmers' suicides and lead to agitations across the country.

According to the representatives of the tobacco growers associations, any alternative crop suggested or tried in their farms should give returns equivalent to tobacco consistently at least for three years. And they demanded setting up of Commodity Boards for alternative crops to facilitate cultivation and marketing of such crops. And such Commodity Boards they said should be headed by growers and not an IAS officer. They wished marketing support on the lines of facilities extended to farmers in China. They suggested that the job of looking into socio-economic conditions of farmers and developing rehabilitation package and alternative vocations and crops suitable to each region should be entrusted to universities or NGOs. The most important point that came out was to organize state level or national meetings of the representatives of all the tobacco growers associations in tobacco growing states with Ministries of Labour, Finance, Commerce, Agriculture & Farmers Welfare, and Industry. But, that should not conflict with the interest of the lakhs of farmers and their dependents. The policy to reduce tobacco production should be gradual. If the government bans tobacco without providing any alternatives, representatives fear that there would be 'Sangram' (protest/ revolt) and they said farmers would certainly oppose government decision. However, they said that they would join hands if, the government wants to bring in a policy for public health purpose and discusses its plans with them in this connection.

Review of relevant studies indicates major constraints in diversification to be—lack of policy framework and strategy for implementation, conflicting mandates of relevant ministries that pose a challenge to tobacco control, poor dissemination of technology, lack of economic information on potential crops and activities, bias towards research on tobacco crop and extension facilities, limited experiments on crop substitution, lack of understanding of farmers' perceptions on crop diversification, lack of infrastructure for alternative crops, and huge financial resources required for creating livelihood opportunities, and, financial resources for providing compensation to facilitate shifting. However, cost-benefit analysis for tobacco and other crops presented in research studies (Panchamukhi 2000²; Dinesh Kumar et al., 2010³; Rao and Nancharaiah 2012⁴; VHAI 2010⁵; CTRI 2010⁶; Prabhakara et al 2018⁷) indicates the feasibility of growing alternate crops that can result in earnings almost equivalent to earnings from tobacco, subject to some

changes in cultivation practices such as mixed cropping, application of irrigation, high yielding varieties, etc. Exogenous factors have to play a major role in promoting these crops, as farmers themselves do not wish to switch from growing tobacco. *Therefore institutional role is essential and inevitable in promoting alternative crops.* Progressive farmers in tobacco growing states have experimented with alternate crops and are successful in getting huge profits and sustaining them. Such best practices need to be popularized and replicated in other regions to showcase the benefits of shifting to alternate crops.

To induce farmers to shift to other crops, measures suggested by farmers include; i) Marketing mechanism to other crops on similar lines of tobacco; ii) Enhanced loan for other crops; iii) Motivation and sensitization of farmers by providing subsidised inputs, improved access to credit, extending weather-based insurance, transfer of technology, proper implementation of MSP; iv) Strengthening the supply chain for alternative crops through the agriculture department and cooperatives to minimise the gap between farmers and consumers.

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