



A REVIEW OF TOBACCO PROBLEM IN INDIA

Public Health

Srinivasan
ChelladuraiTutor/ Clinical Instructor, College of Nursing, All India Institute of Medical Science
(AIIMS), Deoghar, India

ABSTRACT

Worldwide food insecurity has increased as a result of tobacco cultivation. Each year, tobacco is grown on about 3.5 million hectares of land all over the world. India is first in South-east Asia in terms of acres used for tobacco production, followed by Indonesia. Bangladesh, DPR Korea, Thailand, Myanmar, and Sri Lanka are other countries that grow tobacco. The tobacco industry must be held responsible for the health, environmental, and financial implications of tobacco growing and usage, including the escalating food crisis, by the governments and policymakers of the Region. A review into tobacco farming demonstrates how it contributes to greater food insecurity, as do structural factors like the choice of crop.

KEYWORDS

Tobacco use, The prevalence of tobacco, Tobacco farming

BACKGROUND

The leading single preventable cause of death in the world is tobacco usage. An estimated seven million deaths per year are linked to tobacco usage. Smokers lose 15 years of life on average. The World Health Organization (*WHO 2017*) estimates that tobacco use contributed to 100 million premature deaths worldwide in the 20th century, and that number is predicted to increase to 1 billion in the 21st century if current trends in tobacco usage continue. (*The Global Tobacco Epidemic 2011*) Nearly 80% of all tobacco-related deaths will occur in middle- and low-income countries, which will account for the majority of these fatalities. (*WHO 2008*)

One of the most important agricultural crops in the world commercially is tobacco. It is a short-lived, robust crop that can withstand droughts and be grown in soils where other crops cannot be grown successfully. Around 3.5 million hectares of land are used to grow tobacco each year. Furthermore, the cultivation of tobacco contributes to the annual loss of 200 000 hectares of forest. To grow tobacco requires a lot of resources, and the soil is deteriorated by the regular application of fertilizers and pesticides. Land utilized for tobacco cultivation has a decreased capacity for growing other crops, such as food, because tobacco depletes soil fertility. The tobacco crop is planted on 0.45 million ha (0.27% of the net cultivated area) in India and yields about 750 million kg of tobacco leaf. Following China and Brazil, respectively, India is the world's third- and fourth-largest exporter. In the global context, Indian tobacco accounts for 9% of the overall production and 10% of the area. (*Report of Central Tobacco Research Institute-2023*)

The majority of the states in the Indian Union grow some type of tobacco, significantly influencing the economy and prosperity of the farming community. Andhra Pradesh, Karnataka, Gujarat, Maharashtra, Bihar, and Tamil Nadu are the major tobacco-producing states. The Central Tobacco Research Institute estimates that tobacco use causes upwards of 1.3 million deaths in India (*Sinha DN et al., 2014 & Gupta PC et al 1999*), of which one million are attributed to tobacco smoking and the remainder to smokeless tobacco use. Tobacco use is a leading preventable risk factor for non-communicable chronic diseases and premature death worldwide, resulting in more than eight million deaths each year and 170.9 million disability-adjusted life-years lost. (*Peacock A et al., 2017*) Conflicts and wars, environmental shocks, and the COVID-19 pandemic's effects on the economy and society are all contributing factors to the developing food crisis.

The Prevalence Of Tobacco In India:

According to GATS 2, 28.6% (266.8 million) of Indian adults ages 15 and over now use tobacco in some way. Adults use tobacco daily in a proportion of 24.9% (232.4 million), while occasional users make up 3.7 percent (34.4 million). Men used tobacco at a rate of 42.4 percent, while women used it at a rate of 14.2 percent. In urban regions, every fifth adult (21.2%) and every third adult (32.5%) reported using tobacco currently. From 64.5 percent in Tripura to 9.7 percent in Goa, different states and UTs had different tobacco usage prevalence rates. (*Ajaz Afzal., 2022*)

Every ninth adult in India (11.2%) uses khaini, a tobacco and lime

mixture, which is the most popular tobacco product. Bidi is the next most popular tobacco product, being smoked by 7.7% of adult Indians. In terms of usage, betel quid with tobacco ranks fourth (5.8%), followed by gutka, a blend of tobacco, lime, and areca nuts. The most popular smokeless tobacco products among men were khaini (17.9%) and bidi (14%) whereas among women, betel quid with tobacco (4.5%), khaini (4.2%), and oral application products (4.3%) such as mishri, gul, and gudakhu are almost equally popular. In India, 10.7% of adults (99.5 million) currently consume tobacco. Men smoked an average of 19.0 percent of the time, while women smoked an average of 2.0 percent of the time. In rural areas, smoking was prevalent at 11.9%, compared to 8.3% in cities. (*GATS 2 India 2016-17*)

In India, chewing tobacco is slowly becoming endemic. Students, professionals, taxi drivers, labourers, children, young and old people all take it. A recent survey revealed use of chewing tobacco by nearly 70% of college students in several Indian cities. (*Verma, R et al., 2011*) Locally, it's often called as "Gutka" (also known as gutkha, guttkha, guthka) or "Sir". This smokeless tobacco is so popular that highly qualified professionals, such as doctors, also use it. Gutka's main ingredients are betel nuts mixed with areca nut, slaked lime, catechu and tobacco in granulated form, collectively known as Pan Masala, when added to betel leaves (known as Paan) may be harmless without the tobacco. The idea is to chew and later spit it out or it can be swallowed. There are several reasons for its use. Mostly it may be preferred to smoking tobacco because it is fume-free and can be well hidden inside the mouth. Thus users may believe that it creates less of a nuisance for others. Its small, striking and low-cost sachets appeal to many young people. A primary ingredient of chewing tobacco is nicotine.

Tobacco Farming And Economy

India has an edge over the leading producing nations for tobacco in terms of low production costs, typical farm and export pricing. Indian tobacco is regarded as "value for money" as a result. In India, 10 million people work in processing, manufacturing, and exporting, while 36 million people depend on tobacco for their livelihoods, including 6 million farmers and 20 million farmworkers. 4.4 million people are employed by bidi rolling alone, while 2.2 million tribals gather tendu leaves. Small and marginal farmers, rural women, tribal youth, and poorer segments of society are the main beneficiaries. Annually, tobacco contributes ` 4,400/- crores towards foreign exchange earnings accounting for 4% of the country's total agri-exports and ` 14,000 crores to excise revenue which is more than 10% of the total excise revenue collection from all sources.

Economy Of Tobacco Versus Alternative Crops:

Tobacco in India, as in many other countries, yields higher net returns per unit of land than most other cash crops, and substantially more than food crops. Currently, there are a few specialized crops in various areas that provide similar incomes, but it is estimated that these crops would not remain remunerative if total production increased. The economics of alternative crops is generally based on experiments carried out on a limited area at research stations under optimal conditions. More detailed research work is needed on a wider scale at farmers' field level before firm recommendations can be made about them. In general,

under farmers' field conditions, most other alternative crops, as discussed below, are currently not as remunerative as tobacco. Should tobacco farmers need to diversify into other crops, they are likely to suffer economic hardship.

These alternative crops also require high levels of irrigation. Tobacco is preferred due to its drought resistance and suitability for growing under rainfed conditions. Other problems associated with substitution by other crops include the capital invested in specialized facilities created for tobacco processing, which cannot be used for other crops; the difficulties of finding substitute crops for rainfed areas; and the dependency of millions of people on bidi rolling and tendu leaf collection. Moreover, with an assured market and prompt payment of sale proceeds through the Tobacco Board, it will be difficult to replace FCV (Flue Cured Virginia) tobacco as a crop

Bidi tobacco is generally less remunerative to farmers than is VFC tobacco. Some studies have shown other crops, such as chili or cotton, or a combination of soybean and *rabi* sorghum, as well as groundnut and *rabi* sorghum, could give higher returns than a sole crop of tobacco. However, other studies (e.g. Kiremath, 2000; studies conducted by the Department of Agricultural Economics, University of Agricultural Sciences, Dharwad, on Economics of Bidi Tobacco in Nippani Area in Belgaum District; and a Centre for Multidisciplinary Development Research (CMDR) study in three Talukas in Dharwad Districts) have shown different results, with bidi tobacco yielding higher net return per hectare than soybean, sorghum, cotton or groundnut, with only sugar cane being more profitable than tobacco. Sugar cane could be the most favoured crop in the region wherever irrigation is available. Moreover, the extensive research programme carried out by CTRI show that currently no alternative crop tested under monocropping gives returns comparable to tobacco. Intercropping or double-crop returns were equal to monocropped tobacco (CTRI, 1999). It is important to stress that tobacco is generally raised as a sole crop, except in areas where ample and assured irrigation facilities allow a second crop.

Legislation Regarding Tobacco Use

In India, tobacco control policies and programs are extensive and support multi-sectoral activity in both the creation and execution of the policies. (NTCC-2015) Early 1980s and 1990s national consultations on "Tobacco or Health" brought attention to tobacco control and highlighted the necessity of safeguarding against this health risk. According to a 1995 research commissioned by the national Ministry of Health, tobacco was classified as a "demerit" good with detrimental effects on public health. The Cigarettes and Other Tobacco Products Act, 2003 (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution), often known as COTPA, was passed in 2003 and is a significant piece of national legislation. This established the legal framework for tobacco control initiatives across the nation. The World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) emerged at the same time as the development and enforcement of COTPA, with India being the seventh signatory in 2004.¹⁷ This is a rare instance of ratifying an international agreement, signaling a paradigm shift in regulatory policy that impacts both the supply and demand sides. (*Tobacco Free Initiative-2020 (WHO)*) When the National Tobacco Control Program (NTCP) was implemented as a pilot phase in 2007–2008, followed by a gradual scale up during the 11th (2007–2012) and 12th (2012–2017) 5-year plans, these initiatives received more systemic pace. The initiative is currently being implemented across all 36 States and Union Territories. (*National Tobacco Control Programme report, June 10, 2020*)

Government Policy On Tobacco Farming

The government had to deal with a paradox in terms of tobacco industry and crop. On one hand, it has to adhere to its international commitments to reduce tobacco consumption while on other hand has to protect the livelihoods of lakhs of farmers also. The union government is actively pursuing with states like Andhra Pradesh and Karnataka, major growers of tobacco, to chalk out plans to help farmers shift to alternative crops. Government is ready to provide economic and technical support for shift to alternative crops.

The government has another five years of time to meet the obligation to halve the tobacco production by 2020, in accordance with the FCTC. Government has issued certain regulations under the Food Safety and Standards Act, 2006, which lay down that tobacco or nicotine cannot be used as ingredients in food products. (Prasad, V.M. 2007)

What Works For Tobacco Control

This is a matter of great public health concern. Economical and Psychosocial factors have an important role to play in initiation of this habit. It has been observed that a large number of peoples pick up this habit from their family members one generation to another generation. Enforcement of regulations on formation and sale of tobacco products may be useful. However, legislation regarding the formation and use of tobacco products needs to be strengthened to decrease availability, accessibility and affordability of tobacco products. It is also necessary to keep abreast of the policies and conventions of the international agencies such as WHO, United Nations International Drug Control Program (UNDCP) and other similar agencies on tobacco use, in order to utilize their expertise for curbing this problem. There is also an urgent need to take effective steps, especially to increase the education of parents to help prevent children from taking-up this habit.

Alternate crops formation

Depending on factors including the climate, soil type, and accessibility of a reliable water supply, ICAR has recommended a strategic mix of alternative crops as feasible substitutes for tobacco cultivation. The following are general recommendations:

Sugarcane, groundnut, oil palm, cotton, chilli, maize, onion, cucumber, blackgram, greengram, mustard, ragi, castor-groundnut, cotton-groundnut, pigeon pea-groundnut, paddy-mustard, potato, ginger-wheat, tomato, lady's finger, cabbage, cauliflower, garlic, tomato, tomato, brinjal (aubergine), pulses, and turmeric are examples of crops that can be grown in irrigation systems.

Mustard, sorghum, greengram, coriander, Bengalgram, soybean, redgram, safflower, peanuts, maize, bajra, and castor are suitable for locations without irrigation.

The Future Path

Tax increases on all tobacco products, which have been proven to be very effective in the developed world, must be put into action right away. The money raised from these taxes should then be utilized to support programs that promote health and combat tobacco use. The government must make consistent efforts to increase efforts on alternative farming and other livelihoods to replace potential employment losses that could occur gradually. It is crucial to promote public health awareness, mobilize a widespread anti-tobacco movement, and educate all healthcare professionals about tobacco control and cessation by including the subject in medical and nursing undergraduate curricula, various CMEs, conferences, scientific meetings, workshops, etc. It will eventually have a significant influence if all medical professionals engage in tobacco control and cessation. Millions of existing smokers will be assisted in quitting the habit by the expansion of TCCs to the periphery in order to reach the community, making them more accessible and universally accepted.

REFERENCES:

1. Ajaz Afzal Lone. (2022, March 26). Legal Mechanism of tobacco control in Jammu and Kashmir. (<https://kashmirreader.com/2022/03/26/legal-mechanism-of-tobacco-control-in-jammu-and-kashmir/>)
2. Gupta P. C. (1999). Mouth cancer in India: a new epidemic?. *Journal of the Indian Medical Association*, 97(9), 370–373.
3. *National Tobacco Control Programme (NTCP)*. (2023, march). Department of health & family welfare. <https://ntcp.mohfw.gov.in/assets/document/Acts-Rules-Regulations/GSR-400>
4. Peacock A., Leung, J., Larney, S., Colledge, S., Hickman, M., Rehm, J., Giovino, G. A., West, R., Hall, W., Griffiths, P., Ali, R., Gowing, L., Marsden, J., Ferrari, A. J., Grebely, J., Farrell, M., & Degenhardt, L. (2018). Global statistics on alcohol, tobacco and illicit drug use: 2017 status report. *Addiction (Abingdon, England)*, 113(10), 1905–1926.
5. Prasad, V.M. (2007). Case study of tobacco cultivation and alternate crops in India
6. Report of Central Tobacco Research Institute. (2023) (https://ctri.icar.gov.in/for_tobaccoEconomy.php)
7. Sinha, D. N., Palipudi, K. M., Gupta, P. C., Singhal, S., Ramasundarhettige, C., Jha, P., Indrayan, A., Asma, S., & Vindhana, G. (2014). Smokeless tobacco use: a meta-analysis of risk and attributable mortality estimates for India. *Indian journal of cancer*, 51 Suppl 1, S73–S77. <https://doi.org/10.4103/0019-509X.147477>
8. Tata Institute of Social Sciences (TISS), Mumbai and Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey GATS 2 India 2016–17.
9. Verma, R., Khanna, P., Rajput, M., Kalhan, M., & Prinja, S. (2011). Why say no to tobacco: Indian perspective. *The Australasian medical journal*, 4(3), 139–142. <https://doi.org/10.4066/AMJ.2011.646>
10. World Health Organization. (2017). WHO report on the global tobacco epidemic, 2017: monitoring tobacco use and prevention policies. World Health Organization. <https://apps.who.int/iris/handle/10665/255874>
11. World Health Organization. (2011). WHO report on the global tobacco epidemic, 2011: warning about the dangers of tobacco. World Health Organization. <https://apps.who.int/iris/handle/10665/44616>
12. World Health Organization. (2008). WHO Report on the Global Tobacco Epidemic, 2008: the MPOWER package. World Health Organization. <https://apps.who.int/iris/handle/10665/43818>
13. WHO. (2022). *Tobacco Free Initiative*. The WHO FCTC <https://www.who.int/westernpacific/about/how-we-work/programmes/tobacco-free-initiative>