

The Inheritance of Clarity

— Nandini Chatterjee

*MD, FRCP (Glasgow), FICP
Professor, Department of Medicine,
IPGME&R and SSKM Hospital, Kolkata 700020 and
Hony Editor, JIMA*

The theme for this year's World No Tobacco Day was 'Grow food, not Tobacco'. The onslaught of wars, natural disasters and pandemics have led to a devastating food crisis and it is the need of the hour to devise ways of increasing sustainable nutritious crop production to alleviate this problem. A global initiative to augment awareness about transition to alternative agricultural practices and marketing opportunities for tobacco farmers has been taken up.

How has tobacco affected human lives ?

Tobacco acts as a double edged sword harming the producers and the consumers both in the long run.

Growing tobacco contributes to deforestation, water scarcity, involves substantial use of pesticides and fertilizers, leading to soil degradation and depleted soil fertility. Harmful effects on health of the farmers have been documented adding to social and financial burdens.

Tobacco consumption has been designated as a health hazard for decades with identification of more than 43 carcinogens, such as nicotine, nitrosamines and alpha-emitting radionuclides such as polonium in its composition. Tobacco smoke contains carbon monoxide, thiocyanate, herbicide, fungicide and pesticide residues, tars, all of which lead to immunosuppression and potential carcinogenesis.

Smoking has been associated with over 85% deaths of all cancer deaths in men. It is estimated that 40-45% of all cancers and 90-95% of all lung cancers have an association with smoking. Chronic Pulmonary Obstructive Disease (COPD), cardiovascular diseases, strokes and peripheral vascular diseases all contribute to morbidity and mortality of the human race.

In regions where smokeless tobacco habits are endemic, like India, oral cancer can account for more than one-third of all cancers.

However, despite definite proof of its deleterious effects, tobacco production, marketing and consumption has been thriving down the ages.

How did it all begin ?

Tobacco is obtained from a plant from the night-shade family, indigenous to North and South America.

Use of tobacco has been traced back to the first century BC, when the Mayan population of Central America used tobacco leaves for smoking, in sacred and religious ceremonies. Migration of Mayan people led to the spread of tobacco use down south America.

Christopher Columbus arrived on the shores of America and apart from discovering the Red Indians, he also got familiarized with the use of tobacco leaves by the native tribes. Thereafter, Portuguese and Spanish sailors helped to spread different forms of tobacco around the world.

Tobacco cultivation in India was introduced by the Portuguese in 1605. Initially tobacco was grown in Gujarat and later spread to other areas of the country. In 1814, seven species of *Nicotiana* imported from America were cultivated in botanical gardens of Calcutta.

Tobacco has come a long way from this humble beginnings and now it is a booming billion dollar industry in countries like China, USA, the Former Soviet States, India and Brazil.

What is the way forward ?

The WHO and its global partners aims to diversify income options for tobacco farmers, building awareness for health hazards, preventing child labour, responsible water usage and provision of alternative healthier livelihoods .

The 2023 World No Tobacco Day campaign calls on policy-makers to develop suitable strategies for tobacco farmers to shift to growing food crops that would provide them and their families a secure and healthy life and livelihood.

Some of the ways out being contemplated are—

- Public awareness campaigns for community education.
- Healthcare services and screening programs for tobacco handlers.
- Strict regulations for tobacco farming practices.
- Support of research and innovation on alternative sustainable agriculture.

This is easier said than done as tobacco usage is not only addictive, it is rooted in our social and cultural domains coupled with ignorance about the potential harms.

However where there is a will, there is a way. What kind of a world we wish to leave for our children to live in ? The onus rests on our shoulders

FURTHER READING

- 1 Goodman J — Abingdon: Routledge; 1994. Tobacco in history: The Cultures of dependence.
- 2 Bush J, White M, Kai J, Rankin J, Bhopal R — Understanding influences on smoking in Bangladesh and Pakistani adults: Community based, qualitative study. *Br Med J* 2003; **326**: 962-8.
- 3 Digiacomo SI, Jazayeri MA, Barua RS, Ambrose JA — Environmental tobacco smoke and cardiovascular disease. *Int J Environ Res Public Health* 2019; **16**: 96. doi: 10.3390/ijerph16010096.
- 4 Perricone C, Versini M, Ben-Ami D, Gertel S, Watad A, Segel MJ, *et al* — Smoke and autoimmunity: The fire behind the disease. *Autoimmun Rev* 2016; **15**: 354-74. doi: 10.1016/j.autrev.2016.01.001.
- 5 Williams S, Malik A, Chowdhury S, Chauhan S — Socio-cultural aspects of areca nut use. *Addict Biol* 2002; **7**: 147-54.