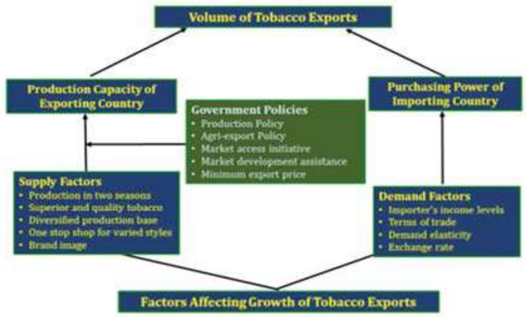
Name of the technology : Econometric modeling framework for identification of determinants of tobacco exports from India

Year (s) of development : 2021-23

Technology details

Factors affecting the growth of tobacco exports



Econometric modeling is employed as a tool to find out the driving factors of Indian tobacco exports using the temporal data on important economic variables over the past four decades (1980-2020). Currently, India is the second largest exporter of tobacco (accounts for ~ 9% of global exports) after Brazil in the world. As per the latest statistics, Indian tobacco exports accounted for ~219 million kg, which amounts to a share of 34% in domestic production (~758 million kg). This indicates that there was a lower degree of export orientation in tobacco, the crop being mainly destined to export market, over the years. In this background, the econometric analysis was carried out to identify the drivers of Indian tobacco exports in the global tobacco market. The econometric model estimated the relationship between the tobacco export volume with domestic production, export price, and global demand for Indian tobacco, and investigated the geographical shift in export destinations of tobacco in the context of changing global and national policy regimes on the sector. The econometric modeling framework confirms that there exists a statistically significant relationship between Indian tobacco export demand, domestic production, export price, and world demand for Indian tobacco. The geographical shift was evident in major export destinations during the post-WHO-FCTC (Framework Convention on Tobacco Control) regime. The model findings direct that India should take advantage of the export price, and global demand for tobacco, as India ratified WHO-FCTC; there is no scope for horizontal expansion of the area under tobacco. This modeling framework aids as a tool to direct and explore the possible options with a greater emphasis on **export-centric farming system in tobacco production** by augmenting crop compliance and quality to meet the standards of international markets. Thus, India needs to promote an export-led production strategy in tobacco to capitalize on the international markets, explore new strategic markets to consolidate tobacco exports at the global level, and augment foreign exchange revenue to the Indian economy.

Impact of the technology

This econometric modeling framework will provide policy inputs in crafting production policies for the export-centric farming system and formulating agricultural export policies/strategies to focus on crop compliance, product integrity, exploring strategic and quality-conscious export markets, and crop diversification strategies to avert possible adverse impacts of tobacco production on public health and the environment.

Publications/commercialization

- Research article titled "Empirical Analysis of Tobacco Exports in the Milieu of Changing Global and National Policy Regimes: Repercussions on the Indian Tobacco Sector"accepted in Frontiers in Environmental Economics, December 2023.

Investigators/Developers

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