

Economic, Market, and Environmental Correlates of Agricultural Export Restriction Episodes in India

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Abstract: Agricultural export restrictions are widely used to stabilise domestic markets, contain food inflation, and safeguard food security. However, relatively little evidence exists on the market conditions associated with export restriction episodes across different commodities. This paper examines agricultural export restriction episodes in India for six major commodities—rice, wheat, maize, onion, cotton, and sugar—using monthly data from April 2007 to March 2025. Pearson correlation analysis is used as an exploratory descriptive tool for the relationship between export restrictions and eight variables representing domestic market conditions, international market signals, macroeconomic influences and environmental factors. The results reveal substantial variation across commodities. Rice and onion restriction episodes are strongly associated with domestic price pressures ($\rho = 0.619$ and 0.265 , respectively) and international prices ($\rho = 0.610$ and 0.366), broadly consistent with the conventional price-stabilisation rationale. In contrast, wheat restrictions are most closely associated with exchange rate movements ($\rho = 0.847$) and production conditions ($\rho = 0.816$), while domestic prices exhibit virtually no relationship with restriction episodes. Maize exhibits a contrasting pattern where restrictions are negatively associated with prices and production. Cotton restrictions are most strongly correlated with production dynamics ($\rho = 0.664$), whereas sugar presents a multidimensional pattern involving domestic demand ($\rho = 0.717$), exchange rates ($\rho = 0.632$), domestic production and prices. The findings overall suggest that episodes of export restriction are associated with commodity-specific market environments rather than a common set of market conditions in India. The results suggest the need for more differentiated and evidence-based approaches to agricultural trade policy.

Keywords: Agricultural Export Restrictions, India, Agricultural Trade Policy, Food Security, Export Controls, Market Conditions, Commodity Markets, Pearson Correlation

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