Market competition for imported agricultural raw materials in the Indian animal feed industry

Partha Pratim Saikia[1], Sanjib Bhuyan[2], Dipanjan Kashyap[1,3,*] and Kishor Goswami[1]

[1]Department of Humanities and Social Sciences, Indian Institute of Technology Kharagpur, Kharagpur 721 302, India
[2]Department of Agricultural, Food and Resource Economics, Rutgers University, New Jersey 08854-3925, USA
[3]Department of Agricultural Economics, Assam Agricultural University, Jorhat 785 013, India

The Indian animal feed industry, crucial for sustaining the country's livestock and poultry sector, heavily relies on a diverse range of feed ingredients such as soybean meal, corn, wheat, broken rice, and various energy and protein sources. Several of these commodities are in short supply for various reasons, including but not limited to stagnant productivity. Most of these commodities are imported from the world market to meet the supply shortage. The present study investigates the market competition among the exporting countries from which India imports 13 specific agricultural raw materials for feed ingredients over the decennial years of 2000, 2010 and 2020. We utilize data from the United Nations Comtrade database.

Our analysis reveals India's significant dependency on specific Asian nations, notably China, as a key source of these agricultural raw material imports. Import costs vary, prompting India to diversify its sources of imports of these agricultural commodities, spanning different continents. Such diversification of import sources is largely driven by cost-effectiveness in a competitive global market. This study provides valuable insights into India's import dynamics and trade partnerships on these key agricultural commodities used by the feed industries (as well as some food industries), thereby offering essential information for the feed industry, commodity traders and policymakers.

Keywords: Agricultural feed ingredients, feed industry, import competition.

India's demand for feed ingredients is rising steadily, primarily due to the increasing consumer preference for animal-protein-based products. The United States Department of Agriculture (USDA) projects this demand to grow by 7% annually, reaching 28 million metric tonnes by 2027 (ref. 3). Notably, the prices of fodder and dry feed, including grains, oilseed cakes, molasses, and other concentrates, have increased significantly over the past years[4–8]. Traditionally, India is a net exporter of cereals like wheat, rice, corn, sorghum, buckwheat, jowar, bajra and ragi, while their imports are minimal. However, there is a higher demand for pulses and oils than domestic production, necessitating imports[4,9]. In October 2022, the environment ministry approved genetically modified mustard seeds, potentially reducing dependence on imports, and enhancing food security[9,10]. However, due to an increase in the demand-supply gap of key feed ingredients like corn and soybean, India significantly increased its imports of soybean meal, corn, wheat, and barley in recent years[3,11,12]. Narrowing this gap to foster growth in the animal husbandry sector is crucial[11].

Poultry meat is preferred over other meats since it is more hygienic, nutritious, and is available at relatively cheaper prices. Due to this the poultry feed industry, in particular, is seeing good growth. However, the shortage of agricultural raw materials, particularly soybean meal in 2020 has increased prices of prepared animal feeds, impacting poultry costs[13]. Although feed ingredient prices have stabilized post-COVID, high corn prices and limited avai-