



NEW ERA AGRICULTURE MAGAZINE

Agriculture re-imagined through the prism of the food processing industry

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"Agriculture is the backbone of India," is the most commonly used sentence when discussing the importance of agriculture in the country, and rightly so, as agriculture and allied sectors employ more than half of the country's population. In a relatively short period of time, India went from being a food-deficit state to a food-surplus state. Today, India is the leading producer of a variety of agricultural commodities, including pulses, onions, jute, bananas, coir, mangoes, and so on. Although India is a world leader in the production of a number of agricultural commodities, its agricultural sector is generally characterized by low mechanization, low yield, and low levels of value addition when compared to their global counterparts. Post-harvest losses can reach as high as 16 percent for perishable products like fruits and vegetables. As a result, farmers have been unable to maximize their crop yields and their incomes have suffered as a result. The primary causes of post-harvest losses are insufficient or inappropriate application of proper post-harvest practices, as well as poor production

planning. Post-Harvest Handling is a term used to describe the procedures that take place immediately after a harvest, such as cooling, cleaning, sorting, and packing. Perishable foods such as fresh fruits, vegetables, and root crops quickly decline in quality after being cut off from the mother plant and incur heavy losses during the marketing phase. Adding value through food processing helps to diversify and stabilize food supplies while also providing new avenues for employment and economic growth. India's food processing industry is set to become one of the world's biggest in terms of output, intake, future expansion, and foreign sales. Biochemical reactions, microbial attack, and infestation are what ultimately ruin unprocessed foods. An important factor in reducing spoilage and prolonging shelf life is applying the necessary post-harvest methods, such as thorough processing and appropriate packing, storage, and transportation. India's food processing industry has come a long way in the past decade, but it still only accounts for a fraction of the country's enormous output. It follows

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that a rise in it will stimulate growth in India's economy. With Gross Value Added (GVA) in the food processing sector rising at a Compound Annual Growth Rate (CAGR) of 9.97% from Rs.1.34 lakh crore in 2014–15 to Rs.2.37 lakh crore in 2020–21, the sector's contribution has steadily increased. India's food processing industry creates a wide variety of products, including rice, wheat, and other cereals, milk and milk products, meat and poultry, and other consumer product groups such as chocolate confections and cocoa products, mineral water, soya-based products, and high protein food. E-commerce has brought a change in food consumption patterns of the country and propelled the Food Processing industry towards a growth trajectory leading to higher processing levels. As a result of the CoVID-19 pandemic, processed foods have gained popularity. Expansion into international markets also has great promise. Farmers may be able to enhance their revenue thanks to the growing demand for processed foods provided they raise output, diversify their crop base away from grains and into horticulture, and cultivate high-value processable types. The government has also made a concerted effort to prioritize this industry by providing tax breaks and other incentives to help businesses enter the market. Both the central and state governments have made significant efforts to cut down on post-

harvest losses by, for example, improving food storage facilities, expanding food distribution networks, and lowering the cost of processing and packaging foods. Among the most important programmes run by the Indian government is the Pradhan Mantri Kisan Sampada Yojana (PMKSY), which subsidizes the construction of cutting-edge facilities like the Mega Food Park, which features state-of-the-art storage facilities, Cold Chain, testing labs, etc. Agri-processing clusters, for example, would be built in close proximity to farms in order to establish new primary processing facilities; this is only one of the many goals of the programme. An integral part of the revitalization of rural areas, as well as the development of agriculture and food production, is the contributions of engineers. Optimal development and use of natural resources, an efficient mechanism for agricultural unit operations leading to increased output, and lower production costs all contribute to improved profitability, long-term viability, and competitiveness in the marketplace. The mechanism also teaches farmers how to conduct their jobs with dignity, comfort, and independence from routine, turning farming into an attractive profession for bright young people. However, there are a number of challenges the Indian food processing industry must overcome, including insufficient infrastructure, a skilled labour



shortage, poor access to financing and raw materials, high energy prices, inadequate storage facilities, and little market exposure. The growth of India's economy depends heavily on the food processing sector. By fostering a climate that would stimulate investments in infrastructure, research, innovation, and technology advancement, the sector needs to be incorporated into the nation's inclusive growth strategy.



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