



# Diversification In Indian Agriculture And Its Role In Export

Mohan Murari Upadhyay  
Research Scholar  
Department of Geography  
A.M.U., Aligarh, India

Yusuf Ishtiyaque  
Research Scholar  
Department of Geography  
A.M.U., Aligarh, India

Dr. Ashish Kumar Parashari  
Research Associate  
Department of Geography  
A.M.U., Aligarh, India

## Abstract

Agricultural diversification means shift from traditional crop farming to multiple crop farming with more inclusive and integrated crop farming system. Diversified agriculture system is more varied and inclusive than the traditional agriculture system. Diversification assists farmers in mitigating the hazards associated with reliance on a single crop. Pests, diseases, and meteorological conditions affect different crops differently. The present study attempts to analyze the trends in agricultural export of selected commodities and to discuss the diversification of Indian agriculture and its role in trade. The present study utilizes secondary source of data released by various government reports, Ministry of Commerce and Industry, DGCIS and Press Information Bureau. The result of the study show that share of agricultural commodities in export has increased by 48.95 percent during 2016-17 to 2021-22. The study also highlights that India has earned forex more than 50 billion USD in 2022. The meat, poultry and dairy also brought 3408 million USD in the country. The export of agriculture and allied activities have already reached Rs. 855293 crore mark during 2019-22 period (Includes April- January 2021-22 figure) with the exports for the period April 2021 - January 2022 exceeding Rs. 3 Lakh Crore. The study also shows that agricultural diversification has far reaching consequences and it helps in mitigating crop failures, reduce dependency on single crop, provides livelihood to large number of people and helps in establishment of various ancillary activities.

**Keywords:** Diversification, export, forex, consequences, dependency, livelihood, ancillary.

## Introduction

Agriculture Diversification refers to either a change in cropping pattern or the farmers opting for other non-farming options like poultry farming, animal husbandry etc. Diversified agriculture system is more varied and inclusive than the traditional agriculture system. Agricultural diversification can be described in terms of the shift from the regional dominance of one crop towards the production of a large number of crops to meet the

increasing demand of those crops (Ansari, A.N., 2018). Agriculture diversification takes place in mainly in two forms i.e. horizontal and vertical. Horizontal agriculture diversification relates to multiple cropping or mix of crops instead of cultivating a single crop. Horizontal Diversification is especially useful for small farmers who hold a small piece of land. This allows them to earn more by escalating cropping intensity. On the other hand, vertical agriculture refers to the incorporation of industrialization along with multiple cropping. In this kind of diversification, farmers take a further step and invest in activities like horticulture, agroforestry, livestock rearing, and culture of aromatic plants. India is a good area to study the effect of intensification on diversity as it is a large and diverse country with an agricultural sector that has seen major changes during this era (Smith, J.C. et al., 2019). Diversification of agricultural farming and cropping system with value added crops and species of livestock in view of making agriculture sector rather more profitable might have posed an alarming ecological crisis i.e. soil fertility depletion, falling underground water table, disturbing soil ecology as well as increasing trend of emission of greenhouse gases especially from livestock through more production of methane gas (N. Khan, AK. Parashari, 2018). In the vertical diversification the thrust is on the integration of other economic activities related to agriculture which can enhance the income of farmers with minimal inputs. This includes growing a variety of crops, incorporating animals, and investigating non-traditional paths like horticulture, floriculture, and agro-processing. In essence, diversification to commercial crops/commodities becomes an essential strategy that can increase incomes in agriculture, minimise risks due to crop failures and above all earn foreign exchange (Satyasai, K.J.S. and Viswanathan, K.U., 1996). Diversification assists farmers in mitigating the hazards associated with reliance on a single crop. Pests, diseases, and meteorological conditions affect different crops differently. Farmers can reduce the impact of bad events on their overall income by diversifying. To achieve the nutritional security crop diversification plays an important role (Malik, M. et al., 2021). Through agricultural diversification farmers can enhance their income by availing various market opportunities. High-value crops and non-traditional agricultural products frequently command higher market prices, giving farmers with alternative revenue streams. Despite its falling share in national income, agriculture in India continues to attract considerable attention because of its strategic importance to food security and poverty reduction (Birthal, P.S. et al. 2015). By growing different types of crops farmers can meet a wide range of demands of consumers of national and international market. Diversification provides crops that have demand in international market. Thus, export opportunities are available to the farmers which helps the country's position in international market and it also increases the share of agricultural commodities in export earnings. Diversification helps the agricultural supply chain to be more resilient. Diversification at the farm level is supposed to increase the farm income; the utility of diversification as risk management practices however, remains (Jha, B. et al., 2009). A diverse agricultural industry is better positioned to adjust and continue producing a variety of products to suit market demands in the face of interruptions such as catastrophic weather disasters or pandemics. Diversification frequently results in the growth of ancillary sectors such as agro-processing and food production. It is also an important sources of raw materials and demand for many industrial products (Deogharia, P.C., 2018). This, in turn, offers more work opportunities in rural areas and helps to the country's general economic development. As in other developing countries, Indian economy is also diversifying at the

macro level with the secondary and tertiary sectors becoming progressively more important in terms of their contributions to national income as well as disposition of the workforce (Singh, N.P. et al., 2006). Agriculture diversification helps sustaining the environment crop rotation, agroforestry, and sustainable agriculture techniques. This aids in the preservation of soil health, the reduction of water usage, and the promotion of biodiversity.

The present study utilizes the secondary sources of data and attempts to highlight need for diversification and its consequences. There are various government agencies who publish reports and release the data regarding the agricultural products exported.

### **Objective of Study**

1. To analyze the trends in agricultural export of selected commodities.
2. To discuss the diversification of Indian agriculture and its role in export.

### **Results and Discussion**

India is an agrarian economy and its most of rural population is dependent on agriculture for livelihood generation. India the size of land holding is decreasing because of rapid growth of population resulting in nuclear families. As per agricultural census 2015-16 85 percent landholdings in India are small and marginal. As the number of families increased their demand for food and employment have also multiplied. This has put enormous pressure on agriculture sector. In this age of globalization Indian economy is also growing rapidly and trying to find a place in the International market and to tap opportunities provided by International market; those sectors of Indian economy which were not contributing sufficiently in export have to increase their productivity to boost India's export. The agriculture is one such sector whose productivity has not been optimized at maximum level. So, agriculture diversification is the need of the hour to increase the productivity of agriculture and to grow products that are demanded in International market. In addition, if small and marginal landholders want to increase the productivity and efficiency of their land then have to grow cash crops, multiple crops and also integrate those activities which are based on agriculture. The fig 1 highlights the share of agriculture sector in India's export. It shows that agriculture exports in India rose from 33.3 to 49.6 (48.95 percent) US\$ billion during 2016-17-2021-22. Although it declined by -9.04 percent during 2019-20 but it again showed resilience and grown by 17.32 percent during 2021-22. The share of agriculture in export shows that agriculture has become an important source of forex earnings which boosts the economic growth of the country. Agriculture is growing those products which are demanded in international market and earning comparatively more income from the same piece of land.

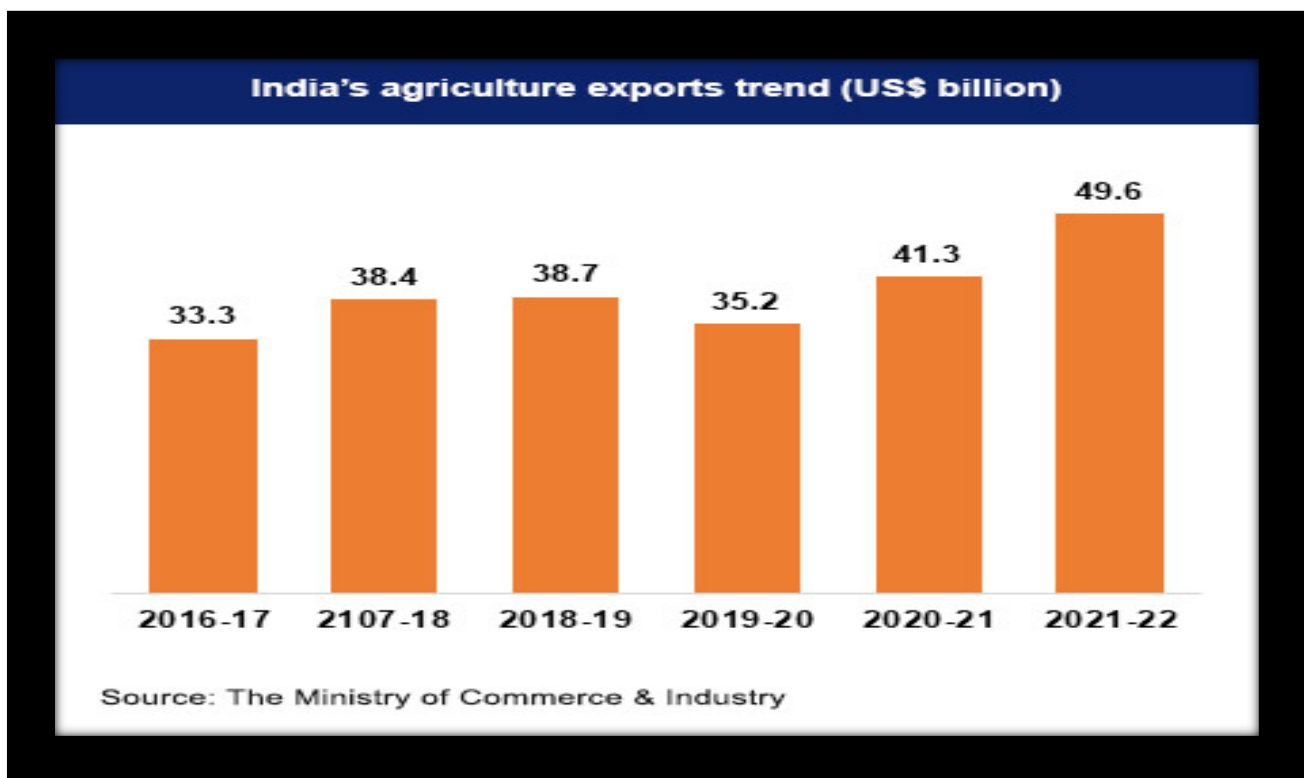


Fig. 1

There different agricultural products which exported to various countries like Rice, Marine products, Sugar, Spices, Buffalo meat, cotton raw etc. Agricultural exports are important to the economy since they contribute to foreign currency, assist rural livelihoods, and promote economic growth. Cereals, fruits, vegetables, spices, tea, coffee, meat, dairy products, and other products are examples of agricultural exports. The variety of these items enables countries to enter multiple global marketplaces and appeal to a wide range of consumer tastes. Growth of agricultural exports contribute to increasing economic activity in rural regions, creating job possibilities across the agricultural value chain. As farmers and agribusinesses engage in export-oriented operations, rural communities have the opportunity for expanded infrastructure development, improved living standards, and improved access to education and healthcare. Growth in export strengthens the country's position in the global market by maintaining high quality standards, complying with international norms, and implementing sustainable farming methods. Figure 2 exhibits the share of different agricultural commodities in India's export during 2022. It shows that export of rice has 19 percent share followed by Marine products 15 percent, Sugar 9 percent, Spices 8 percent, Buffalo meat 7 percent, raw cotton 6 percent, processed products 5 percent, wheat 4 percent, tea and coffee 4 percent, fruits and vegetable 3 percent, oilseeds, castor oil, other cereals, oil meal, 2 percent each. India exported 50.30 USD billion of agricultural products to other countries in 2022.

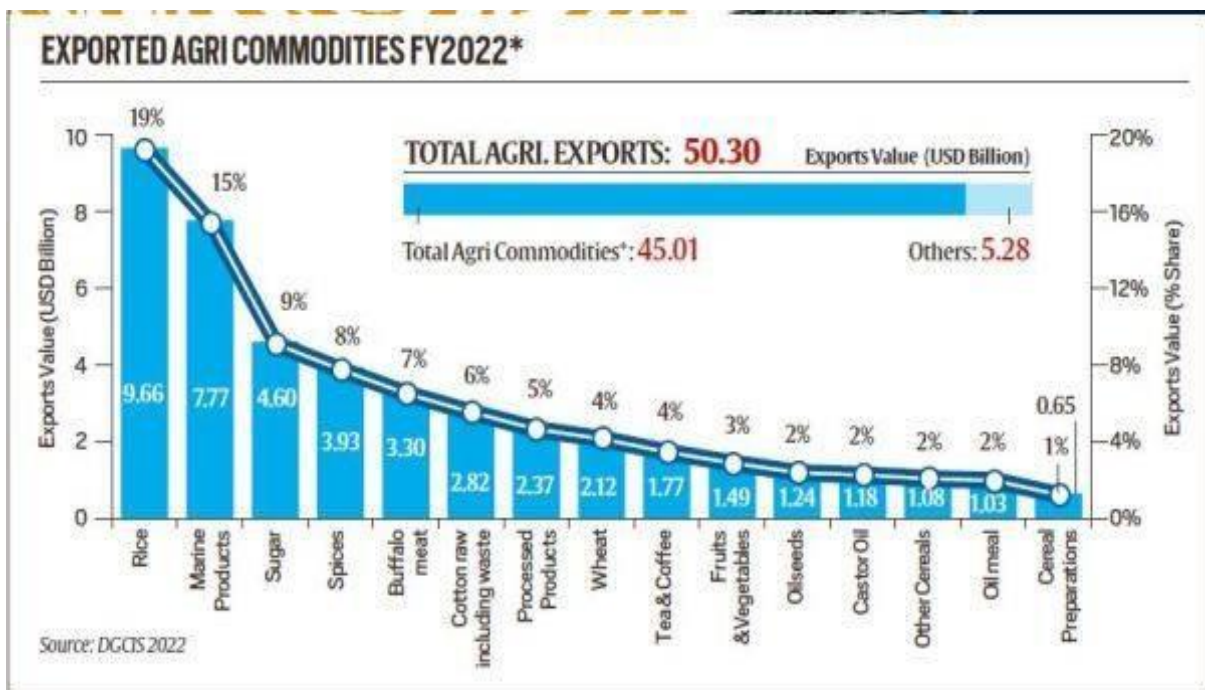


Fig. 2

Dairy and poultry are one the most important economic activities which are practiced in association with agriculture. In the rural India where size of landholding is very small and most of people are dependent on it for livelihood generation, people practice integrated farming. Dairy farming is dependent on agriculture because fodder for animals is provided by agriculture while manure and draughting power is provided by dairy farming. Poultry is practiced by very poor people in the rural India who do not have capital to purchase large animals but in urban India poultry is practiced at commercial scale in poultry farms which is also exported. Fig 3 highlights that meat, dairy and poultry has earned 3005 million USD in 2020-21 and 3408 million USD in 2021-22. India has the largest number of bovine population in the world and it produces the largest quantity of milk. India exports substantial quantities of meat and dairy products. India lacks in processing facilities otherwise these figures could have been much higher.

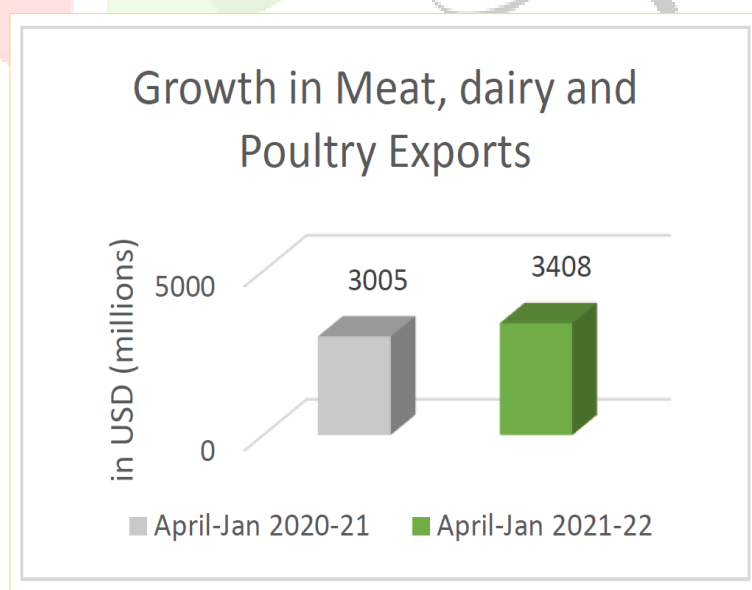


Fig. 3

The export of rice was the top forex earner at USD 7696 million during April-January 2021-22, growing 13 per cent over the corresponding period in 2020-21 when it touched USD 6,793 million.

It is observed that the export of agriculture and allied products have increased from a total of Rs. 896708.84 crore during 2009-14 to Rs. 1193463 crores during 2014-19. The exports have already reached Rs. 855293 crore mark during 2019-22 period (Includes April- January 2021-22 figure) with the exports for the period April 2021 - January 2022 exceeding Rs. 3 Lakh Crore (fig. 4).

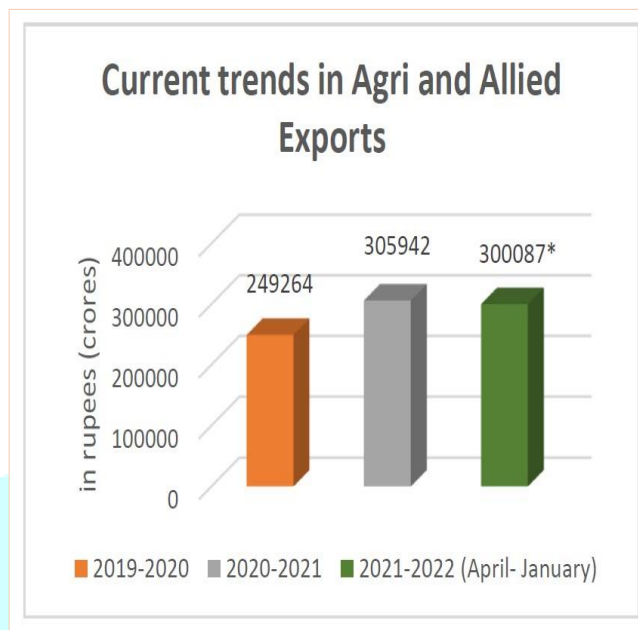


Fig. 4

### Conclusion and suggestions

Agricultural diversification is one of the most important process for the country's socio-economic development, trade and export capabilities. The change in focus from traditional cropping to more varied and inclusive agricultural practices have farm reaching effects. It reduces the risk of dependency on single crop make it more resilient and immune to market fluctuations. Integrating high-value crops, horticulture, floriculture, and non-traditional agricultural goods not only increases farmers' income but also broadens the range of trade and export prospects. The cultivation of a diverse range of crops, as well as the implementation of environmentally friendly practices, position the country as a stable provider of agricultural products. As India continues to diversify its agricultural methods, it is critical to address issues such as financing availability, market volatility, and infrastructural development. Strategic government interventions, R&D funding, and the promotion of sustainable farming methods will be critical in sustaining and optimizing the benefits of agricultural diversity. Diversification of Indian agriculture emerges as a driving force behind the nation's economic growth, trade expansion, and worldwide competitiveness in the changing environment of international agriculture and commerce. The Government has formulated a comprehensive Agriculture Export Policy in 2018 to consolidate the efforts for export of agricultural products. It attempts to diversify the export basket, destinations and boost high value and value added agricultural exports including focus on perishables. It also promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports. It aims to provide an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phytosanitary issues. The agriculture strive to double India's share in world agriculture exports by integrating with global value chain at the earliest. It try to enable farmers to get benefit of export opportunities in overseas market.

## Reference

- [1] Ansari, A.N. (2018) An Analysis of Crop Diversification in India, World Wide Journal of Multidisciplinary Research and Development, Vol. 4(1), pp. 274-280.
- [2] Birthal, P.S. et al. (2015) Assessing the Impact of Crop Diversification on Farm Poverty in India, World Development, Vol. 72, pp. 70-92.
- [3] Deogharia, P.C. (2018) Diversification of Agriculture: A Review, Journal of Economic & Social Development, Vol. - XIV, No. 1, pp. 46-59.
- [4] Jha, B. et al. (2009) Drivers of Agricultural Diversification in India, Haryana and the Greenbelt Farms of India, Working Paper Series No. E/303/2009, Institute of Economic Growth, University of Delhi Enclave, North Campus, Delhi – 110 007, India, pp. 1-41.
- [5] Khan, M. and Ahmad, A. (2019) Trends and Pattern of Crop Diversification in Kheri District, Uttar Pradesh, India, International Journal of Environmental & Agriculture Research, Vol. 5, Issue 11, November, pp. 23-32.
- [6] Malik, M. et al. (2021) Temporal Study of Land utilization pattern and Crop Diversification in India, Advances in Bioresearch, Vol. 12 (5) September, pp. 164-169.
- [7] N. Khan, AK. Parashari (2018) Income and Employment Generation through Integrated Crop-Livestock Farming System in Bulandshahr District: A Geographical Analysis, Acta Scientific Agriculture, Vol. 2, Issue 4, April, pp. 36-39.
- [8] Satyasai, K.J.S. and Viswanathan, K.U. (1996) Diversification of Indian Agriculture and Food Security, Indian Journal of Agriculture Economics, Vol. 51, No. 4, October-December, pp. 674-679.
- [9] Singh, N.P. et al. (2006) Diversification of Indian Agriculture: Composition, Determinants and Trade Implications, Agricultural Economics Research Review Vol. 19 (Conference No.) 2006, pp. 23-36.
- [10] Smith, J.C. et al. (2019) Agricultural intensification was associated with crop diversification in India (1947-2014), PLOS ONE, 14 (12), December, pp-1-17.