

Crop Diversification of Agriculture: An Analytical Approach

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ABSTRACT

Indian agriculture differs from that of the Green Revolution in the modern, liberalized world. In the post-reform era, urbanization, rising per capita income, and shifting consumption patterns have resulted in a shift in consumer demand from food grains to live stocks and horticulture products. In contrast, during the green revolution, the growth of agriculture was primarily driven by supply-driven policy instruments like irrigation, electricity, extension services, and price support. Even though many farmers still rely on traditional food crops for their income, horticulture and livestock products account for 50% of the agricultural GDP. Thus, it is imperative that policies be supported in order to diversify agriculture away from conventional low-value crops and toward high-value livestock and horticultural commodities. Diversification of farm operations is becoming a key tool for increasing agricultural revenue and employment growth. In order to address the irregularities in the agricultural sector and attain food security, policymakers are also placing a strong emphasis on transforming the way the agriculture industry operates. In light of this, it is suggested that the diversification of agriculture toward high-value commodities such as fruits, vegetables, dairy, poultry, meat, and fish products is a workable way to stabilize and increase farm income, improve agricultural growth, create jobs, and protect natural resources.

Keywords: Livestock, Poultry, Agriculture, Food, Crops

INTRODUCTION

The Indian economy is based mostly on agriculture due to its significant contribution to employment and the building of livelihoods. Although agriculture's part of the GDP has been steadily declining, over 50% of the workforce in the nation is directly employed in this sector, and a sizable section of the population is dependent on agro-based companies and the trade of agricultural goods. Agriculture is the primary industry in the 60% of our country's rural areas. Therefore, horticulture and agriculture occupy a sizable amount of the nation's territory. Mechanization and cutting-edge technology might boost production in horticulture and agriculture, which could play a major part in India's economic growth.

The ratio of agricultural outputs to inputs is used to calculate productivity in agriculture. Although industrial goods are often weighed, it can be challenging to determine the whole amount of agricultural produce due to their variable densities. The area of agriculture known as horticulture is concerned with the business, science, and art of cultivating vegetables in gardens. For eighty percent of the states' rural population, agriculture is their major source of income. Agriculture is the main industry that creates jobs and revenue. In addition, it is a significant supply of raw materials and a growing market for industrial goods. In particular, a wide range of consumer items, insecticides, fertilizers, and agricultural instruments that greatly boost the rural economy.

Technology-led diversification, which was observed during the Post-Green Revolution era, saw the agricultural industry shift toward crops that had higher yield increases. A large portion of the land was turned over to high-value food grain crops including maize, wheat, and rice. As a result, specialized situations are starting to emerge in several areas around the nation. Diversification may imply different things to different individuals and can be interpreted in different ways. According to a common misconception, it refers to the transfer of resources from agricultural to non-agricultural pursuits, the utilization of resources in a wider range of complementary and diversified agricultural activities, and the transfer of resources from low-value to high-value crops.

Even while India's economy as a whole and its agricultural sector in particular are experiencing structural diversification, the rate of change is slower than that of other emerging nations. An increasing amount of resources, particularly labor, are being directed toward the non-agricultural sector as agriculture's contribution of the GDP declines. Even though it is still relatively little, the non-crop sectors of agriculture—such as forestry, fishery, and animal husbandry—are increasingly contributing more to the subsector's production and employment. As a result, the agriculture subsector is becoming more diversified by shifting its focus from crop production to other agricultural pursuits.

ROLE AND SIGNIFICANCE OF AGRICULTURE

Following the green revolution, the necessity for agricultural diversification became evident as a result of price fluctuations brought on by the supply and demand equation under WTO market regulation. In this instance, agricultural diversity works well as a buffer against fluctuations in the market price of farm goods, perhaps ensuring financial stability for farming households. For individual farmers, agricultural diversification has several benefits, but these benefits are subject to various conditions. In this instance, if more farmers made the same adjustments, the commodity's or product's price would naturally drop, leading to an abundance of that specific good. Therefore, the same degree of agricultural diversity that is conducted by a small number of individuals may provide the largest level of profit; on the other hand, the profit ratio is often limited when it is practiced by a big number of people.

AGRICULTURE DIVERSIFICATION: DETERMINANTS AND FACTORS

The study of the determinants of agriculture diversification allows us to identify the dominant elements in a given location that influence agricultural practices, as physical and socioeconomic factors are the most essential in regulating agricultural practices in every place. Additionally, it aids in our understanding of the current crop competitiveness. The direction of agricultural activities is determined by several variables. The factors that propel agricultural diversification in one socioeconomic context may not be the same in another. These elements may be broadly divided into three categories: institutional factors, public initiatives, and natural causes.

Natural Elements

The fundamental elements affecting the cropping pattern are those that are physical and natural, such as the soil, drainage, slope, rainfall, temperature, humidity, etc. In most cases, any attempt to alter these physical and natural factors in order to establish an alternative cropping pattern may out to be both extremely difficult and monetarily unfeasible. However, these parameters can change if technology is introduced in different situations. One of the most significant technical advancements that has a significant influence on cropping patterns is irrigation.

Institutional Elements

The market is the single most crucial element influencing the diversification of agriculture. In agriculture, price responsiveness, profit maximization, and other factors lead to diversification. The institutional frameworks and market infrastructure are equally significant. Agriculture diversification is governed by two more sets of criteria in addition to the market.

Demand-Side Elements

Numerous socioeconomic, cultural, environmental, and geographic factors affect the pattern of consumption. Bovines are typically the primary source of meat in areas with high population density and land scarcity; coastal areas report higher fish consumption; flood-prone areas generally report lower fruit and vegetable consumption.

EFFECTS OF DIVERSIFICATION IN AGRICULTURE

Research indicates that diversification is always centered on achieving economic advantages since this is the area that is thought to have the most potential to further socio-economic development. For this reason, the social benefits are rarely mentioned and the economic ones are frequently well-documented. The agro-socio-economic upliftment of farming communities with limited resources is greatly impacted by agricultural diversification. In addition to providing more jobs, more labor options, and higher productivity, it affects local resources in a wider range of varied agricultural systems, as well as in the livestock, aquaculture, and other non-farm industries in rural regions. Diversification in agriculture refers to raising overall output and productivity in terms of quality, quantity, and financial advantages under various agro-climatic conditions of the nation in light of the globalization of markets in the WTO era. In India's rural areas, there are several prospects for crop diversification in both irrigated and non-irrigated broad areas.

CONCLUSION

The low price of grain-based production systems causes both researchers and farmers to lose interest in the field, although no country in the world can eradicate rural poverty without increasing productivity in its agriculture sector. According to earlier research, increasing rural salaries and income augmentation via the creation of jobs and value-added food production can eradicate rural poverty. The most reliable approach to eradicate poverty, it would seem virtually clear, is to increase agricultural output. Increases in agricultural productivity can lead to faster poverty reduction and economic growth by stimulating links to the non-farm rural sector and raising farm earnings. The diversification of farm sectors is linked to a revitalizing and lucrative agriculture. In a nation where grain-based agriculture is the main source of food security and is widely acknowledged as such, there are few options to increase revenue from grain-based agriculture. We are able to develop high-value goods to make high money thanks to this contradictory scenario. In India, small land proprietors own the majority of the agricultural land and have the opportunity to produce high-value commodities. As a result, the current study shows that diversification of agriculture is necessary to boost crop productivity and area output as well as farmer profitability.

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