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Contributions of Agriculture in India for Self-Sufficiency: An Empirical Study

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Abstract

A significant contributor to the growth of the Indian economy has been agriculture. The agriculture sector continues to be the main employer and source of income for most developing countries. Amidst the celebration of "Azadi Ka Amrit Mahotsav," India's agricultural progress ought to tackle concerns over food security at both the national and family levels. The study aims to make an effort to illustrate the role that Indian agriculture plays in terms of its uniqueness, diversity, scope, history, GDP contribution, employment, and desire. This study is mostly descriptive in character and employs both quantitative and qualitative methodologies based mainly on secondary data. Most of the countries start their development first from the development of their agriculture. The agriculture plays a vital role to develop the country such as supply food, raise GDP, create employment and effective demand, supply raw materials for the industries, Mitigating the Economic Downturn, create effective demand, etc. Agricultural products need to be enhanced and preserved in order to play its role properly to bring all round develop the country in all respects. Using science-led management strategies, more crops should be grown in order to achieve sustainable development. Therefore, the agricultural sector should be planned and handled in proper way so that it function properly and face any challenges that may come up later.

Keywords: Effective demand, Employment, Food security, Indian economy, Raw materials.

1. Introduction

The world's oldest structured occupation is agriculture. A significant contributor to the growth of the Indian economy has been agriculture. It has its roots in the first phases of human civilisation, when individuals started utilising land for their own sustenance and survival. Over time, there was a dramatic development in the practices of agriculture. Up until the beginning of the industrial revolution, agriculture—basically a subsistence industry—provided the majority of livelihoods and jobs in Western Europe. The agriculture sector continues to be the main employer and source of income for most developing countries. A sector-level focus on sustaining and increasing the rate of productivity increase has recently been observed in agriculture. To generate high-yielding genotypes in crop improvement projects, for instance, a number of cutting-edge methods and approaches have been employed in addition to efforts to harness cutting-edge technologies like genome editing. A similar situation is located in the associated sectors: animal husbandry and fisheries. Moreover, an assortment of programmes have been started to transfer the innovations from "lab to land." The goal of the food security policy has brought about a structural change that is primarily customer-focused. However, the realised productivity levels, income, livelihood, and welfare of the agricultural community are at risk due to the regular hardships and disasters that farmers experience, especially in light of climate change.

It is estimated that by 2050, there will be 1.6 billion people living in India. Consequently, in order to guarantee universal access to food and bolster the nation's ability to feed its rapidly growing population, a roadmap for future agricultural transformation and policy reforms is essential. Amidst the celebration of "Azadi Ka Amrit Mahotsav," India's agricultural progress ought to tackle concerns over food security at both the national and family levels, offering directives and a path forward for achieving this [https://www.pondiuni.edu.in /university_news/national-seminar-on-indian-agriculture-75-achievements-challenges-and-wayforward-department-of-economics/]. Agriculture is the most important economic sector since its development precedes that of the other sectors. In the early stages of economic development, the agriculture sector controls the majority of resources. A sizable portion of the nation's output came from agriculture, which employed the vast majority of its labour force. Kuznet (1968) identified three important contributions that agriculture makes to the growth of an economy: factor, product, and market contributions. According to the 1982 World Development Report, a dynamic agriculture in Europe, Japan, and the United States accompanied and, in some cases, led the process of industrialization and expansion (World Bank, 1971). As per contemporary development theories, the attainment of growth and development objectives is predominantly contingent upon the performance of the agricultural and rural sectors of less developed countries (Todaro, 1989). The development of those who work in other industries as well as those who work directly in the field depends on the expansion of agriculture. The development of other sectors is

encouraged by the rise of agriculture through both forward- and backward-looking relationships. Hirschman (1958) coined the phrase "sectoral linkages" for his "unbalanced growth" theory. He argued that the industry will grow faster through connections other than those that come from unconventional sources if it expands with more connections. According to Kalecki (1960) and Kuznet (1968), the growth of agriculture is a sign of industrialization, but he also pointed out that agriculture cannot be the leading sector because of its poor backward links. Agriculture has an effect on the non-agricultural sector. The researchers not only acknowledge that agriculture contributes significantly to the economic development of less developed countries, but they also think that one of the main dynamic forces changing conventional agriculture is technological improvement. It is believed that conventional farming provides the inhabitants and economy of the country with food and raw resources. It's also seen as a means of employment and income. The benefits of agriculture that are listed above are well known, but less is known about the benefits that agriculture and its people share. One of them is that this industry serves as a multiplier for the growth of secondary and tertiary industries locally, regionally, and nationally by generating the demand base for the rest of the economy. Second, the number of people living in poverty is declining as a result of the expansion of agriculture. Moreover, agriculture benefits the economy by generating foreign exchange and savings. Indian agriculture has transformed from a food-scarce country to one that is food-surplus and exporting, as evidenced by the revolutions in staple foods, livestock, and fisheries (Mohapatra, Rout, and Pathak, 2022). As of right now, India ranks second in the world for producing rice, wheat, oilseeds, fruits, vegetables, cotton, sugarcane, and spices. It is also the world's top producer of pulses, milk, cashews, tea, cotton, and tea worldwide [https://www.investindia.gov.in/ team-india-blogs/indian-agriculture-investments-and-achievements]. Despite the fact that the bulk of India's workforce worked in the agriculture sector, the country was not self-sufficient in agricultural output when it gained independence in 1947. The main source of food for the country's growing population was imports. Things changed not long after the green revolution was successful. Currently, food grains are self-sufficient and exported from the country.

2. Objective

The study has made an effort to illustrate the role that Indian agriculture plays in terms of its uniqueness, diversity, scope, history, GDP contribution, employment, and desire.

3. Methods and Materials

3.1. Background of the Study

In "Agricultural Growth and Industrial Performance in India," a 1982 study by Rangarajan, it was found that for every percent gain in agricultural productivity, there was a corresponding increase in industrial production of about 0.5% and a rise in national income of more than 0.7%. Thus, expanding the agriculture sector is necessary to boost the rate of economic growth. Calculations show that a 1% increase in agriculture's GDP contributes about 0.25% to the growth of India's GDP as a whole. This suggests that if India were to achieve a four percent annual growth rate, agriculture would add an additional two percent to the country's production. The World Bank (2008) found, however, that GDP development in the agricultural sector lowers poverty at a pace that is at least twice as effective as it is in other sectors when analysing cross-country data. The research indicates that agriculture is practiced in three distinct worlds: underdeveloped, urbanised, and emergent nations. The agriculture industry serves a variety of purposes in the aforementioned countries. Agriculture contributes an average of 32% to overall economic growth in economies that rely heavily on it, and most of the poor live in rural areas. In contrast, in nations that are transforming, agriculture contributes an average of 7% to overall growth, but poverty is still primarily concentrated in rural areas. In urbanised countries, where agriculture accounts for only 5% of economic growth, urban poverty is greater than rural poverty [https://egyankosh.ac.in/bitstream/123456789/84863/3/Unit-11.pdf]. India was compelled to purchase wheat under PL 480 from the United States in 1964 and 1965, during two of the worst droughts in recorded history, at relatively low prices and with rupee payments. The US-India accord, however, was in conflict with India's reluctance to support US bombing in Hanoi and Haiphong during the Vietnam War. The seeds of food security across the country were sown when the ICAR began collaborating on studies related to rice and wheat. These scientific collaborations with the Ministry of Agriculture, Forestry, and Water meant that the country would most likely benefit from technical breakthroughs between 1951 and 1971(MoAFW 2019). Resounding confidence was sparked by the fact that wheat availability grew more quickly than population growth, and this was made possible by India's concerted attempts to work with local and foreign organisations and institutes on research (Mishra and Arunachalam, 2022, p. 363).

Need of the Study: From the study it is felt that the agricultural sector stands at the root of most of the developments. So the sector should be planned and handled properly to play its roles, which are discussed in the following.

Design and Methodology: This study is mostly descriptive in character and employs both quantitative and qualitative methodologies. Its design was derived from secondary data. The information is obtained from secondary sources of Indian knowledge, which include books, papers, websites, and online journals produced over time.

Analysis: In order to preserve the required presentation and conclusion, a number of resources from various sources have been thoroughly inspected, validated, and organised under pertinent themes.

4. Results and Discussion

Role of Agriculture to make India self-sufficiency is discussed as follows: Most of the developing and developed countries start their development from the development of their agriculture. Now we show the role of agriculture in the following Diagram and after that we discuss.

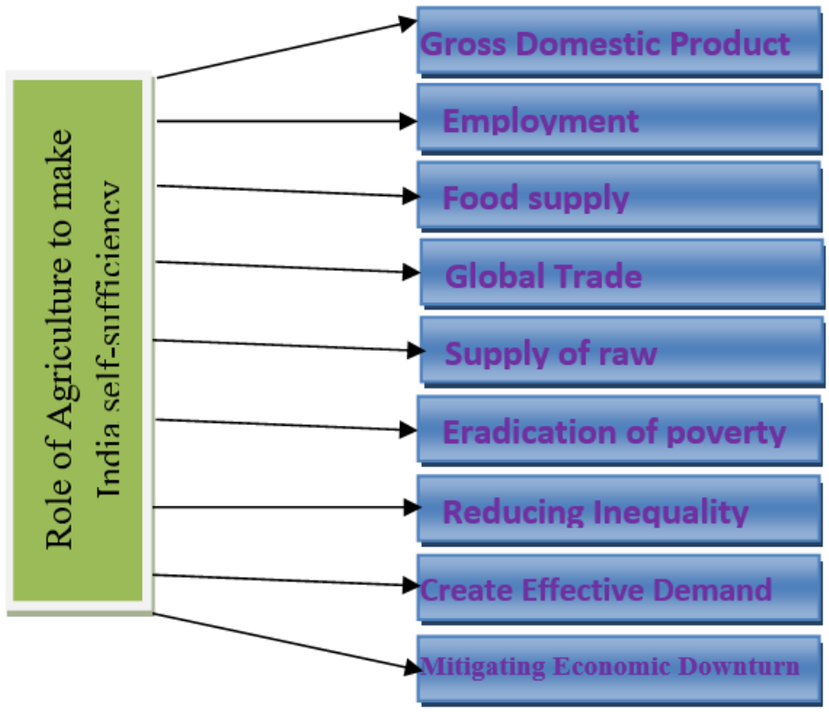

Figure 1.

1. Gross Domestic Product (GDP) and the Agricultural Sector: During the period of its independence, the agricultural sector dominated the nation's economy in terms of both the jobs it provided for the labour force and its GDP contribution. Before independence, when the agricultural sector employed the bulk of the labour force and contributed the majority of the nation's GDP, Table 1 paints an uneven picture of the Indian economy. Half of the country's income and 75% of all jobs were generated by the agriculture sector.

Table 1. Structure of Indian economy on the eve of independence in the share of three sectors

Sectors	National Income (%)	Employment (%)
Agriculture	49	72
Mines, Manufacturing, Small Enterprises	17	10
Services, Trade, Transport and Communications and other Services	34	18
Total	100	100

Source: Bettlehem Charges, India Independent

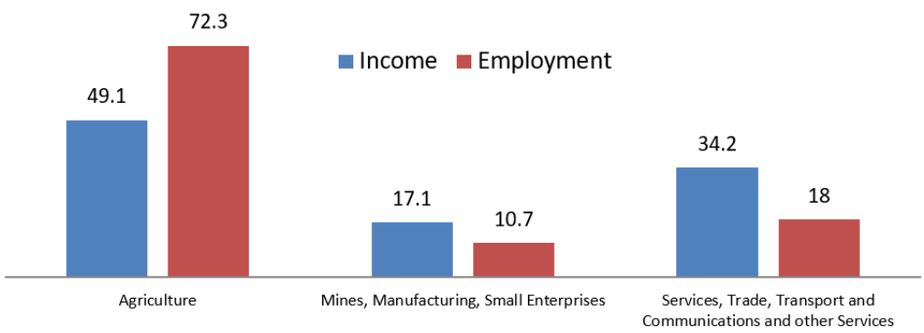

Figure 2. Share of Three Sectors in the Indian Economy at the time of Independence.

Explanation from Table 1 and Figure 2: On the eve of independence, the industrial sector employed about 10% of the labour force and contributed 17% of the nation's GDP. In industrial operations, where technological improvement is the main driver of growth, just one-tenth of the workforce was employed. The consumer goods sector accounted for the majority of the industries, with the capital goods sector being nonexistent. The tertiary sector, which includes services, employs around one-fifth of the labour force and generates one-third of the country's income. Table 1 illustrates how predominantly rural and agrarian India's economy was on the eve of independence, with over 85% of the population living in villages and the majority relying on agriculture for a living. Even though agriculture employed 72% of the labour force, the country was short on food and other raw resources needed for manufacturing. 49% of the nation's income came from the primary sector. The usual shortage of food grains, both in terms of quantity and quality, meant that famines were commonplace throughout the country. Since then, the agriculture sector's share of the national GDP has declined noticeably and structurally. Because the employment share has not kept up with the GDP, there is a sizable income disparity between the non-agricultural and agricultural sectors. The composition of the GDP since independence, stated as a percentage, is now displayed in Table 2.

Table 2. Sectoral Composition of GDP since independence (in per cent).

Year	Agriculture and AlliedActivities	Industries	Services
1950-51	51.81	14.16	33.25
1980-81	35.39	24.29	39.92
2000-01	24.51	25.22	50.27
2010-11	17.74	27.76	54.5
2016-17	15.11	31.12	53.77
2019-20	18	27	55
2020-21	20	26	54

Source: Economic Survey, GOI., (various years)

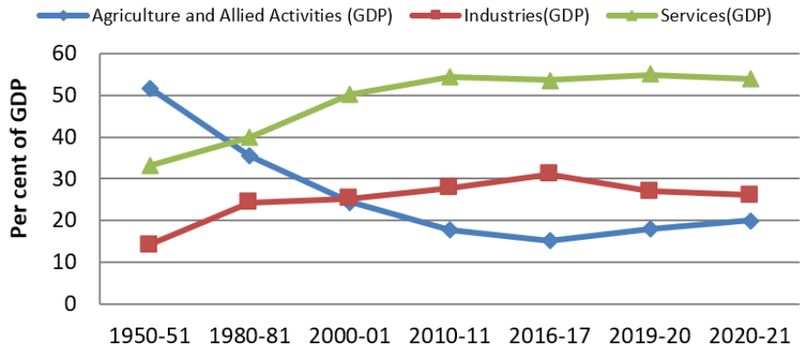

Figure 3. Share of Three Sectors in GDP Since 1950-51.

Explanation from Table 2 and Figure 3: Figure 3 and Table 2 explain that the industrial and service sectors have replaced the primary sector, which is why the curves for agriculture and related activities are downward sloping and only slightly upward after 2016–17. In contrast, the curves for industries are rising until 2016–17 and then slightly downward, while the service sector's curve is continuously rising. Ultimately, the proportions of the secondary and tertiary sectors are steadily rising. It indicates that the rural economy develops and becomes an industrial economy. The primary sector, or agriculture sector, has contributed less to GDP than it did in 1950–51, 35% in 1980–81, and 15% in 2016–17, as shown by the Table and Figure It did, however, rise to 18% in 2019–20 and 20% in 2020–21. The agricultural sector's revenue share of the country declined steadily between 1950–1951 and 2016–2017, but its GDP contribution climbed again. The reason for this is the progress made by science in this area. The fact that grains alone contributed nearly half of GDP in 1950–51 indicates how beneficial the agricultural sector is to the Indian economy. Its food production has increased significantly since winning independence, and it currently ranks second in the world and is considered a surplus producer. India's move from "ship-to-mouth" to "self-sufficiency" in food grain production after independence is considered a significant achievement, considering its agrarian economy. Following independence, foodgrain production surged from 50 million tonnes to 323.55 million tonnes in 2022–2023. A country's economic development greatly influences how much of its GDP and employment come from agriculture. The sector with the most resources in the early stages of development is agriculture, which includes manpower, capital, and revenue. Any economy can be divided into three major categories: primary, secondary, and tertiary sectors. The structure of an economy changes as it advances in development. Economists have labelled these long-term shifts in the economy as "structural transformations of an economy." Even after 70 years of independence, India's economy is still based primarily on agriculture, which employs 42.2% of the working population and contributed 18% of the country's GDP in 2019–20 (National Statistics Office, 2020). The Indian Council for Agricultural Research (ICAR) states that India is blessed with vast tracts of fertile land that are divided into 15 agro-climatic zones with a range of soil types, weather patterns, and crop-growing potential [https://www. investindia.gov.in/team-india-blogs/indian-agriculture-investments-and-achievements].

4.1. Explanation through ANOVA Test

Sectoral Composition of GDP among Agriculture and Allied Activities, Industries and Services for 1950-51, 1980-81, 2000-01, 2010-11, 2016-17, 2019-20 and 2020-21 shown in above Table 2 is analysed through ANOVA test given below.

Table 3.

Anova: Single Factor						
Summary						
Groups	Count	Sum	Average	Variance		
Column 1	7	182.56	26.08	173.8872		
Column 2	7	175.55	25.07857	28.01448		
Column 3	7	340.71	48.67286	74.22926		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2492.304	2	1246.152	13.53871	0.000258	3.554557
Within Groups	1656.786	18	92.04365			
Total	4149.09	20				

For critical value of F we have F crit (Critical F-value) = 3. 554557. This is a critical value of F at a significance level of 0.05 for the given degrees of freedom. The F-value that has been calculated equals to 13. 53871, while the

critical F-value is 3. 554557, therefore, we can again deny the null hypothesis, and one might state that there are significant differences among the groups.

Again, P-value = 0.000258. This is the probability of observing an F-statistic as extreme as, or more extreme than, the one calculated if the null hypothesis is true (i.e., all group means are equal). Since the P-value is much lower than 0.05, we can reject the null hypothesis with strong confidence, suggesting that there are significant differences between the group means.

The test reveals that there is a significant difference between the group means since the P-value (0.000258) is much less than 0.05, and the calculated F-value (13.53871) exceeds the critical F-value (3.554557).

2. Employment Scenario and Shift of Manpower: Over time, the importance of agriculture as a job source has somewhat decreased. According to the results of the Periodic Labour Force Survey (PLFS) conducted in 2022–2023 by the Ministry of Statistics and Programme Implementation (MoSPI) and the National Sample Survey Office (NSSO), the agricultural and allied industries will employ roughly 45.76% of the workforce. India's agriculture has increased dramatically in size and productivity since independence. It still serves as the foundation of the Indian economy, meeting the requirements of more than 58% of the populace. Thus, the release of surplus labour from the agricultural sector is essential to the development and expansion of the non-agricultural sector. Table 3 displays the employment scenario for the three industries in percentage form for the years 1999–2000.

Table 4. Employment Scenario in Three Sectors Since1999-2000 (in Per cent).

Sectors	1999-2000	2004-05	2009-10	2015-16	2019-20
Agriculture	59.9	56.6	53.2	45	42.2
Industries	16.4	18.7	21.5	25	25
Services	23.7	24.7	25.3	30	32.8
Total	100	100	100	100	100

Source: Data.gov.in

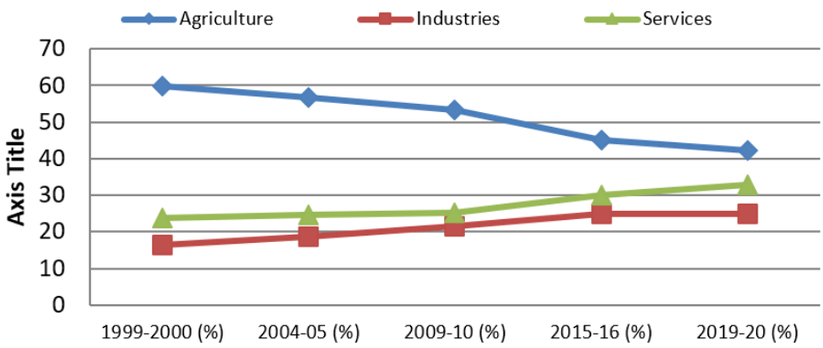

Figure 4. Time Plot of Employment Scenarion in Three Sectors.

Explanation from Table 4 and Figure 4: First, a sizable section of the labour force is employed in agriculture. This sector employed 59.5 percent of India's labour force in 1999–2000. Development may allow workers to move from agriculture to non-agricultural businesses. Transferring labour from the agricultural to the non-agricultural sectors is particularly significant in the early phases of economic development because it lessens the strain of an excess workforce on limited land. The employment curve in the agricultural sector is progressively sloping lower due to the steady decrease in the percentage of workers in this sector, as the table and figure illustrate, while the curves in the secondary and tertiary sectors are steadily sloping upward.

It demonstrates the movement of labour from the rural to the industrial and service sectors. As a percentage of the national GDP, the agricultural sector's economic contribution is declining over time, and the labour force is unable to keep up with the population's quicker expansion (Lekhi and Singh, 2018). Agriculture is India's major industry. Agriculture continues to employ the majority of people in the country, although its share of the workforce's jobs has declined over time. According to the latest recent government statistics for 2019–20, 42.2% of jobs in India are in the agriculture industry. In affluent Western countries like the United States and the United Kingdom, only 2–3% of the working population is employed in agriculture. In Australia and New Zealand, two nations with highly developed agricultural economies, less than 10% of the working population is employed in agriculture. Due to the Indian work force's heavy reliance on agriculture—as evidenced by its pitiful 17% proportion of GVA—there is a substantial amount of hidden or disguised unemployment in the industry, which eventually results in decreased labour productivity (FAO, 2020). Studies show that many farmers—about 40% of those polled by the National Sample Survey Organisation (NSSO)—have indicated that they would like to stop farming if they find suitable alternatives (Chand, 2017; Himanshu et al., 2016; Chand and Srivastava, 2014). Greater economies of scale will result from an increase in the quantity of land held per person as more people quit the agricultural sector. However, the change has occurred more slowly than anticipated due to a number of socioeconomic constraints, such as low levels of education and skill, rural people's unfavourable location, and the non-farm industries' limited capacity to absorb workers (Chand and Srivastava, 2014; Mukherjee, Atri, et al., 2022).

4.2. Explanation through ANOVA Test

Employment scenario in three sectors i.e., Agriculture, Industries and Services for 1999-2000, 2004-05, 2009-10, 2015-16 and 2019-20 in percentage form for each year group shown in Table 3 is analysed through ANOVA test given below.

Table 5.

Anova: Single Factor						
Summary						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Column 1	3	100	33.33333	542.6633		
Column 2	3	100	33.33333	415.0033		
Column 3	3	100	33.33333	299.6233		
Column 4	3	100	33.33333	108.3333		
Column 5	3	100	33.33333	74.17333		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0	4	0	0	1	3.47805
Within Groups	2879.593	10	287.9593			
Total	2879.593	14				

F crit (Critical F-value) is 3.478. This is the critical value of F at a significance level of 0.05 for the given degrees of freedom. The calculated F-value (0) is much smaller than the critical value (3.478), indicating no significant difference between the groups. Since the P-value is 1 and the F-value is 0, we cannot reject the null hypothesis. This means there is no significant difference between the group means. All groups have the same mean (33.33), and the only variability comes from within each group. In summary, there is no evidence to suggest that the groups are different from each other based on this ANOVA test.

3. Food supply for a growing population: India, the second most populated nation in the world, is expected to surpass China to become the most populous nation, according to the United Nations Population Fund (UNPF). Two issues facing Indian agriculture are feeding a large and growing population and maintaining agricultural productivity. Furthermore, the need for food will increase along with income levels. Stated differently, there is a high income elasticity of demand for food in emerging nations. Food grain domestic demand is expected to increase from 207 million tonnes in 2004–05 to 235.4 million tonnes by the end of the eleventh five-year plan and then to 280.6 million tonnes by the end of 2020–21, according to NITI Aayog member Ramesh Chand. Consequently, there will be a future increase in demand for food grains, especially high-value crops, along with increased per capita income and urbanisation. With its shrinking land area and unpredictable climate, India's agriculture is going to have an even bigger challenge.

4. International Trade in Agricultural and Related Products: Shifting Agrarian Trade Patterns India has become a major producer of numerous agricultural commodities worldwide, and as a result, its proportion of global commerce in products related to the agricultural sector has doubled from 1.1% in 2000 to 2.2% in 2018 (GoI, 2020). Agriculture and associated industries accounted for 14.2 percent of India's total exports in 2020–21. These sectors produce a wide range of items in both raw and processed forms, including grains, horticultural crops, sugar, livestock, and marine products. Due to the increasing demand for Indian rice on the global market, both basmati and non-basmati varieties, grains now make up the majority of India's agriculture export basket (22.3%). The share of animal husbandry in India's agriculture exports nearly doubled from 10.4% in 2000 to 20.2% in 2020, mostly because of the export of buffalo meat. The proportions of maritime and horticultural products have remained largely stable over the last 20 years, at roughly 18% each. But over time, drinks, tobacco, and oilseeds have all seen large declines in their export shares (Atri Mukherjee, Priyanka Bajaj, Rishabh Kumar, and Jobin Sebastian (2022).

According to a 2021 WTO report, India became one of the top 10 producers of agricultural goods in 2019, with a sizable share of its exports including rice, cotton, cattle, and soy beans. With a 3.7% share of global agricultural exports, India surpassed Thailand to become the world's largest exporter of rice in 2019. India is ranked fourth in terms of imports (10%) and third in terms of cotton exports (7.6%) in 2019. India is rated ninth and has the lowest share of the world's most traded agricultural crop, soya beans, at 0.1%.According to international rankings, India ranked ninth for "meat and edible meat," making up 4% of total trade. The statistics stated above illustrate India's incredible journey from a "ship to mouth" situation to being among the top 10 agricultural exporters in the world [https://egyankosh.ac. in/bitstream/123456789/84863/3/Unit-11.pdf].

5. Raw material supply to industries: Agriculture provides the raw materials needed by several important national industries. The cotton, jute, and sugar industries are a few examples of these that rely solely on agriculture for their inputs. Additionally, agriculture provides the raw materials needed by the entire food processing business. As a result, the expansion of agriculture is necessary for the expansion of the industries that rely on it. India's transportation system is largely dependent on agriculture because the country's roads and railways are mostly used for the delivery of agricultural products, which accounts for the majority of traffic on these networks. India's internal commerce is primarily composed of agricultural products.

6. Poverty eradication: Growing agriculture has a direct impact on achieving this objective and has the special capacity to reduce poverty in all kinds of countries. GDP growth originating in the agricultural sector decreases poverty at least twice as efficiently as GDP growth originating in other sectors, according to a 2008 World Bank study. Compared to Latin America, China's GDP growth in agriculture was 3.5 times more effective in reducing poverty (2.7 times more effective). According to the World Bank, following the Green Revolution and market liberalisation, China and India had rapid growth in their agricultural sectors, which precipitated a dramatic drop in the share of people living in poverty.

7. Provision of excess: To increase the export of agricultural products, excess is made accessible as the agricultural sector grows. A rise in export profits is preferred since there are more demands on the foreign exchange position in the early stages of development to finance the acquisition of essential and necessary capital goods (Lekhi and Singh, 2018).

8. Relief from Capital Shortage: As a result of the expansion of the agricultural sector, the burden of some industrialised nations facing a shortage of foreign capital has decreased. Because it requires less money to thrive than other industries, the agriculture sector mitigates the growing problem of foreign capital.

9. Helpful in Reducing Inequality: The income difference between rural and urban areas is greater in a country with a high population density and a predominantly agricultural economy. The focus on agriculture needs to increase in order to reduce this wealth gap. The prosperity of agriculture would increase the income of most rural residents, possibly closing the income gap. Those who work in agriculture make significantly more money than those who do not (Chand et al., 2015; Chand, 2019). The bulk of the population of the nation is made up of small-scale farmers and agricultural labourers who endure extreme poverty and malnutrition. Suffering in rural areas is a common concern. Positive for Inequality Reduction: The income difference between rural and urban areas is greater in a country with a high population density and a predominantly agricultural economy. To reduce this wealth gap, agriculture has to be prioritised more. Because of the prosperity of agriculture, most people living in rural areas would make more money, potentially closing the income gap. People who work in agriculture and those who do not have a considerable income discrepancy, according to Chand et al. (2015) and Chand (2019). The majority of the nation's underprivileged and undernourished citizens are agricultural labourers and small-scale and marginal farmers. There is general concern about hardship in rural areas. With the passage of the twenty-first century, each of these elements emphasises the need for a fresh perspective on agriculture. Under topics like: (1) Growth to Efficiency; (2) Employment Generation; (3) Food Security to Nutrition and Health; (4) Shortage Management to Surplus Management; (5) Knowledge-Intensive Agriculture to Input-Intensive Agriculture; (6) Climate Change and Sustainability; (7) Production and Producers; and (8) Policy Interventions, Regulations, and Reforms.

10. Create Effective Demand: As the country's non-agricultural industry expands, farmers' purchasing power will increase in tandem with the growth of the agricultural sector. It will provide a market for increased production. The bulk of people in less developed countries are recognised to be dependent on the agricultural sector, and it is their obligation to be able to afford the goods that are produced. It will therefore encourage the growth of the non-agricultural sector. In a similar vein, raising the productivity of cash crops could pave the way for the growth of the exchange economy and, ultimately, support the non-agricultural sector's expansion. Purchasing industrial products like insecticides, agricultural machinery, and other supplies encourages the growth of the industrial sector.

11. Helpful in Mitigating the Economic Downturn: During periods of economic depression, manufacturing output may be reduced or even stopped. The service sector is not immune to the consequences of the economic slump. However, agriculture continues to be produced because it provides us with the means to survive. As such, it generates significant demand even in lean economic times (Lekhi and Singh, 2018).

5. Conclusion

Agricultural products need to be enhanced and preserved in order to play its role properly to bring all round develop the country in all respects. Using science-led management strategies, more crops should be grown in order to achieve sustainable development. The ancient and timeless ideas of "living in harmony with nature" and "simple living and high thinking" ought to be the cornerstones of agricultural advancement. Indian scientists throughout antiquity, the Middle Ages, and the British Empire made significant contributions to this cause. Modern developments in soil, water, and climate research are now feasible by these efforts, both domestically and internationally. Rather than focusing on cereal-intensive food security, today's food sufficiency scenario attempts to provide subsistence and prevent malnutrition. By 2030, "zero hunger" might become a reality thanks to sustainable development initiatives. Despite undergoing the Green, Yellow, and Pulse Revolutions and producing an astounding 314.51 Mt in 2021–2022, India needs to stay current its agricultural output growth to keep up food security. Therefore, the agricultural sector should be planned and handled in proper way so that it function properly and face any challenges that may come up later.

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