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"Agricultural Progress in India at the Present Time"

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Abstract
The agricultural sector provides the bulk of India's GDP. In India, About 22% of GDP comes from agriculture, while more than 65% of the inhabitants works directly in the agricultural industry. The significance of agriculture stems from the crucial supply and demand ties it has with industry. In the last five years, The agricultural sector has achieved tremendous achievements in the production and profitability of grain crops, oilseeds, cash crops, fruits, veggies, small grains, chicken, and dairy. Cashews and spices originate in India, and the country is also the world's number two producer of fruit and vegetable exports. Additionally, India has the world's largest milk production.

The evolution of Indian farming:

There have been four major eras in the development of Indian agriculture since independence. Before I go into detail about them, I feel obligated to point out that famines were commonplace and famine commissioners were plentiful throughout the colonial period. Between the years 1900 and 1947, the increase rate of food production was just 0.1% a year. The majority of agriculture's major institutional advancements may be traced back to suggestions made by famine commissioners. In 1942–1943, India declared its independence against the background of the great Bengal Famine.

Fisrt Phase (1947-1964)

During the Jawaharlal Nehru administration (1947–1964), scientific agricultural infrastructure was prioritised. This was achieved by establishing new centres for agricultural research, Additionally, the Pant Nagar University was founded in 1958, marking the beginning of the country's first agricultural university. A combination of improved public health infrastructure and new discoveries in preventative and curative medicine led to an increase in the population of the world of more than 3% each year at this time. The increase in food production wasn't enough to satisfy the rising demand, thus food imports were necessary. The United States' PL-480 programme, which facilitated such imports, reached its zenith in 1966, when its volume reached 10 million tonnes.

Second Phase (1965–1985)

During this time, The focus was on making the most of the irrigation and technology transfer infrastructure built in. A sense of pride in our country's agricultural prowess was birthed by the Green Revolution. Once the agricultural growth rate had finally surpassed the overall economic growth rate, the benefits were cemented throughout the Sixth Five Year Plan period (1980–1985). Food production increased at a faster pace than the population. The success of the Sixth Plan shows what can be accomplished when investment and the strategy for agricultural output are designed with the farmer in mind.

Third Phase (1985-2000)

During this time, pulses and oilseeds were prioritised above other crops as they had been in previous eras, although other crops including vegetables, fruits, and milk were also boosted in production. Production of oilseeds increased dramatically when Rajiv Gandhi instituted organisational changes like the Technology Missions. The Mission strategy prioritises preservation with production, consumption, and trade. A Wasteland Development Board was established, and the government paid more attention to rain-fed regions and abandoned lots. Progress has been gradual and occasionally startling, whenever an end-to-end strategy has been applied. This era concluded with the government hoarding vast quantities of grain, a fact that was widely reported in the media under the banner "Grain Mountains and starving millions." During this time, the cooperative credit system began to break down and government spending on irrigation and other infrastructure vital to agricultural success began to dwindle.

Fourth Phase 2001 until the present

This era is best defined by policy weariness, which has led to technological extension and production fatigues. It's no surprise that those who provide for the survival of others, farmers, are turning to suicide at alarming rates, and that 40% of farmers would want to leave the profession altogether if given the chance. Using grain for ethanol production is a contributing factor to rising worldwide

prices of key food grains at a time when agricultural productivity is falling. Competition between the needs of food production and energy production is driving up land prices. Wheat's export price, for instance, increased from 2005's $197 per tonne to 2007's $263 per tonne. Since 2005, the price of maize has more than doubled, from about $100 per tonne to the current $166. Free yet unjust: the globalisation of commerce. These issues may become much more complicated if global warming causes unfavourable shifts in precipitation, temperature, and sea level. North India may experience catastrophic floods due to the melting of Himalayan ice and glaciers. There is a chance that we will return to the pre-Independence condition of periodic famines. Gone are the days of abundant food supplies; in their place come dwindling stocks, rising costs, and pervasive malnutrition.
India is broadening its export markets, although the United States remains its primary export partner. Although the European Union (EU) is still its largest export market, the value of EU exports fell from 21% to 16% between 2003 and 2005. When adjusted for inflation, ASEAN's 14% share places it in second position.

The Present Farming Situation in India:

India's food grain output hit a record 227 million tonnes in 2007–08, an increase of 10–12 million tonnes over the previous fiscal year. If food grain output increases by another 2–3 million tonnes during the Rabi season, it will surpass the historic 230 million-ton level. Growth in India's agri-biotech industry is expected to play a significant role in propelling India's economy forward.
The agricultural sector is expected to have a large boost in output in fiscal year 2009. According to a report by the Centre for Monitoring the Indian Economy (CMIE), the agricultural and allied sectors of India's GDP would expand by 3.2% in the current fiscal year. During the 2009 fiscal year, the ancillary industries of cattle, forestry/logging, and fisheries are projected to expand by 4.8%.
India already produces more milk than any other country and is expected to overtake New Zealand as the world's second-largest producer of dairy products over the next few years. It is the world's second-largest provider of produce. More cattle than everywhere else in the world are kept there. A third-largest grain producer, it ranks in the top 10 worldwide. When it comes to fish productionIt's the third-best in the whole planet. Most spices come from India, which is also the greatest producer of these aromatic plants, responsible for 25-30% of global output. The country is home to over 9500 different spices, many of which have medicinal or fragrant properties. India is the largest producer, consumer, and seller of spices in the world. Black pepper, tiny and big cardamom, cinnamon, onion, mustard, chilli, etc. are all cultivated and collected in India.

Key Characteristics of India's Agricultural Sector

As was previously noted, subsistence agriculture is practised across the vast majority of India. While certain parts of India have abandoned this method of farming after several hundred years, the majority of the country continues to use it. After gaining independence, there was a massive shift in agricultural techniques. Despite the rise of the industrial and urban sectors, the agricultural sector continues to feel the effects of the population's reliance on it.

Farm mechanisation: The late 1960s and early 1970s were a time of "Green Revolution" in India. Complete automation of agriculture is still a pipe dream, notwithstanding the Green Revolution and the revolution in agricultural gear and equipment.
Increased reliance on the monsoon: Irrigation systems have grown rapidly since independence. In spite of the massive increase, only roughly a third of all cultivated land is irrigated at now. Therefore, the monsoon remains crucial for the success of two-thirds of cultivated land. You are aware that the Indian monsoon is notoriously unpredictable. As the climate changes, this becomes increasingly less trustworthy. It was said at the beginning of the class that India has a wide variety of terrain, climate, and soil types. India's varied climatic zones allow for the cultivation of both tropical and temperate crops. Rare are the nations that can compare to India in terms of cultural diversity. When we get into a detailed discussion of the many types of crops, you'll see it for yourself. Crops grown for human use predominate because of the need to sustain India's massive rural population. However, in recent years, the proportion of land utilised for food crops has decreased owing to many alternative uses that are more financially viable.

Trends throughout the seasons: India's three harvest seasons reflect the country's unique geography. You may be familiar with the terms kharif, rabi, and zaid. Different crops are cultivated in each of India's three growing seasons. The kharif harvest is for rice, whereas the rabi harvest is for wheat.

Indicators of Difficulties in Indian Agriculture

Although many causes have contributed to the current status of agriculture in India, the seven challenges listed below are particularly pressing.
Diminished Efficiency and Increasing Unpredictability:
The unpredictability of the monsoon has led to significant shifts in recent years in agricultural output in India. For instance, during 2002–03 (the lowest in the previous 12 years) and 2003–04, food grain output in the nation ranged from 174.19 million to 210 MT. Non-food grain production also shows cyclical fluctuations. It was shown that between 1992 and 2003, the average fluctuation in

agricultural output was five times that of the total GDP. The necessity to improve the irrigation systems is highlighted by the fact that India's agricultural output is so highly dependent on rain. Only 39.2 percent of the country's total cultivated land was irrigated in 1998-99.

Lower Rates of Capital Formation:

Agricultural investment rates, particularly public investment, fell steadily during the 1990s. Over the last decade, private sector capital creation in agriculture has increased, but this has not been enough to make up for the gap caused by a comparable drop in governmental investment. With the lack of enough new capital formation, agriculture has been unable to keep up with the ever-quickening speed and pattern of technological development, which has had a negative impact on productivity. It is imperative that the current downward trend in public investment be reversed in order to reinvigorate agricultural development. Falling numbers of small loans are much more concerning than the general drop in agricultural lending (of up to Rupees 25,000). From a high of 62.55 million in March 1992, these loans for the informal sector have dropped to a low of 37.22 million in March 2002. During the same time frame, their percentage of total bank credit fell from 25% to 6%. Consequently, it seems that small farmers are bearing the brunt of the agricultural financing crunch. Poor Resource Allocation and Technological Development Increasing the amount of land used to grow crops has slowed, making it all the more important to maintain and improve agricultural productivity. In addition, Land ownership is decreasing as a result of factors such as the growing price of producing and the drying up of ground water. Therefore, if we want to see a rise in agricultural output, we need to see a rise in agricultural productivity from the land that is already being farmed. The availability of reliable electrical power on farms also has to be increased urgently. Deficiency in the supply of energy to farms: Unfortunately, the country's supply of agricultural energy power remains inadequate. When compared to other industrialised countries.

Unfair pricing and support structures:

The MSP system was established to guarantee farmers a minimum price for their goods. However, throughout the 1990s, big rises in rice and wheat MSPs severely altered incentives offered to these crops at the expense of others. The incentives have already been skewed away from rain-dependent crops like pulses and oilseeds due to the electricity subsidy granted for irrigation. These biases have hampered attempts to broaden the range of crops grown.

Significant Difficulties Facing India's Agricultural Sector

Looking at the difficulties encountered by Indian farming, Maybe there are two main groups that we can use to categorise them. Subsets of this collection of problems include those that have persisted for a long time. The second set of problems is all new, and it has arisen because of the way agriculture is practised now, climate change, and the state of the economy. The key obstacles are as follows; let's break them down.

Major crop production has been stagnant for some decades, even for staples like rice and wheat. Our agriculture experts, policymakers, and planners are concerned about this. There would be a massive supply-and-demand imbalance if this tendency kept going. No one wants a return to India's pre-Green Revolution state of affairs. Investigate the conditions that prevailed before the Green Revolution.

The rates of agriculture inputs have grown dramatically throughout the years. Fertilizer, insecticide, pesticide, HYV seeds, farm labour cost, etc. are all examples of agricultural inputs. Farmers with smaller or medium-sized plots of land would be hit particularly hard by such an increase.

On the one hand, the green revolution has helped end famine in India. Nonetheless, technology has also spawned unintended effects. Exhaustion of farmable land is one such issue. Repeatedly growing the same crop may deplete the soil of its nutrients, a phenomenon known as soil fatigue. Rain forests are a common place for this kind of thing to occur.

The negative effects of global climate change Global climate change is a relatively new problem among many. Many experts believe it will have far-reaching consequences for farming. Seventy percent of India's population works in agriculture, so you can picture the effect. Some predictions for the effects of climate change include a 2–3 degree Celsius rise in average temperatures, a rise in sea level, stronger cyclones, more erratic precipitation patterns, and so on. Rice and wheat yields would decrease as a result of these adjustments. Northern India's wheat harvest would be negatively impacted by a temperature increase in the winter. In the coastal regions of India, rice production will be negatively impacted by the increased frequency of storms and the incursion of salt water.

The impact of globalisation on India's agricultural industry is plain to discern. Every single emerging nation has felt its effects. The most glaring result is the danger to the profitability of farming in India, which is putting financial pressure on farmers. This is because of a decline in output prices and an increase in input costs. This is a result of the decrease in both subsidies and safeguards for farmers. The liberalisation of trade threatens the livelihood of these farmers by opening the market to cheap goods produced in the developed countries with the help of massive government subsidies.

The term "subsidy" refers to monetary aid provided by the government to private organisations or individuals. In a liberalised economy, businesses may open in any part of the nation at any time, with no fear of interference from the government or other private entities.

Food Security: Before the green revolution, India was unable to meet its own needs for food grain production. It was West Pakistan, or what is now Pakistan, that benefited from India's canal irrigation system, cotton belt, and wheat bowl when India was divided in 1947. East Pakistan, now known as Bangladesh, was also recognised for its contributions of the jute belt and the rice bowl. Thanks to the green revolution, India is now able to produce all the food grains it needs on its own. However, overall output has remained relatively unchanged over the last decade. However, throughout this time our population grew by an estimated 16–18 million people. India has achieved food self-sufficiency, but this hasn't been accompanied by guarantees of food security, which rely on the availability, cost, and nutritional quality of the food that is consumed. Providing enough food for the Indian people is a major problem the country is trying to solve.

Farmer Suicide: There are always several factors at play. However, when there are over 200,000 of them, it becomes sense to look for overarching similarities among them. A high degree of commercialization of agriculture and extreme levels of peasant debt tend to correlate with an increase in suicide rates. Those planting cash crops seemed to be at far higher risk of suicide than farmers growing food crops. However, the root causes of the issue were not addressed. The first cause of the downturn was the widespread commercialization of rural areas and the accompanying sharp drop in agricultural investment. The challenges were made worse by the fact that banks stopped lending money to farmers just when input costs were skyrocketing and agricultural earnings were plummeting. Two-thirds of agricultural suicides between 2003 and 2008 occurred in these states. Debt, failed harvests, and a general decline in economic fortunes are three key causes. Farmers' lives have become more challenging as a result of a variety of factors, including a decline in social status, excessive charges by local money lenders for the vulnerable farmers, chronic disease in the family, addiction, etc.

It is for this reason that the Tea Revitalization and Replanting Fund has been established. The government is working on implementing a cash-based system for the production of coffee, rubber, spices, cashews, and coconuts. To get additional irrigation projects done as quickly as possible, the Accelerated Irrigation Benefit Program (AIBP) has been updated. The budget for 2007-08 is Rs11,000 crore, which is a significant increase over the previous year's spending of Rs7,121 crore. In 2006–2007, fertiliser subsidies were expected to cost the government Rs.17,253 crore. New projections put this figure at Rs.22,452 crore. Kharif and Rabi crops will continue to be covered by the National Agriculture Insurance System (NAIS) in 2007-08. In 2007-08, the interest subvention policy of 2% will be maintained. The new Rain fed Area Development Program has received funding of Rs. 100 crore.

Conclusion

The most significant factor in India's gross domestic product is the agricultural sector. The agricultural sector contributes close to 18% to the country's GDP. It has been observed that agricultural input has been decreasing over the last several years, yet it remains the largest contributor overall. Not only does agriculture play a significant role in India's GDP, but a big section of the population also relies on it for their living. The rapidly growing middle class and increasing per capita income in India have stoked fears of an overheated economy and inflation. India's food import bill would climb dramatically as a result of rising demand and the present commodities boom. In spite of this, it cannot be denied that India's agricultural industry has made tremendous progress toward realising its potential. Expanded use of technology in farming led to a "green revolution" that dramatically increased the supply of staple cereals. The improvement may be seen in India's current account balance. Before 1990, India had to rely on imports to meet its food needs. Because of its size and variety of agricultural products, even little changes in its commerce may have a major impact on global agricultural markets.

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