

Agriculture the Soul of India

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Introduction

Agriculture in India has a long history, dating back to the Indus Valley Civilization. It is a critical sector of the Indian economy, contributing to approximately 17-18% of the country's Gross Domestic Product (GDP) and providing employment to around 50% of the Indian population. Over the years, Indian agriculture has undergone significant changes and has adapted to new technologies and techniques. The Green Revolution in the 1970s saw the introduction of modern farming methods, improved seeds, and the widespread use of fertilizers and pesticides, leading to a significant increase in crop production.

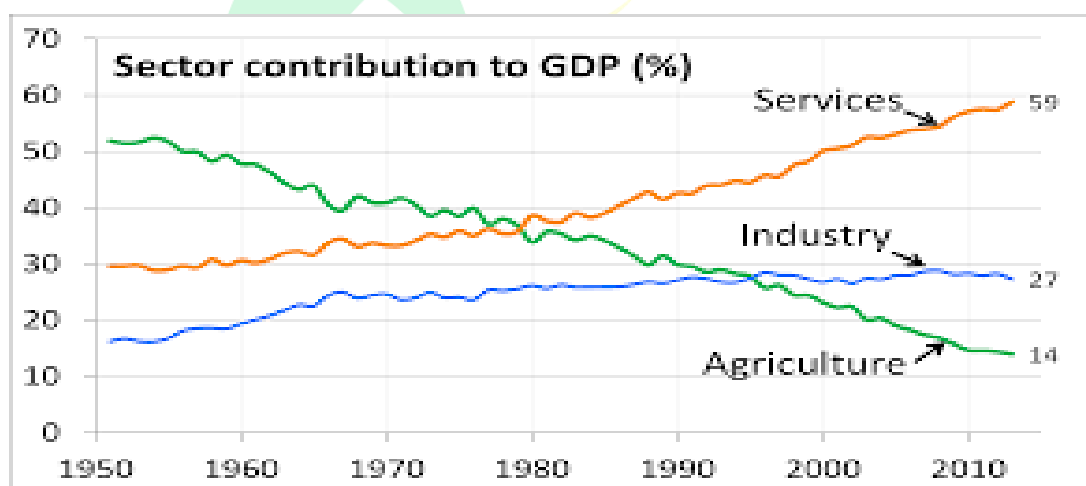
Today, Indian agriculture is diverse, with crops ranging from rice, wheat, and maize to cash crops like cotton, sugarcane, and oilseeds. The country is also a major producer of fruits, vegetables, and dairy products. Despite these achievements, Indian agriculture continues to face several challenges, including poor infrastructure, limited access to credit and markets, and the impact of climate change. The government of India has implemented various programs and policies to address these challenges and to support the growth of the agricultural sector.

The history of agriculture in India

The history of agriculture in India can be traced back to the Indus Valley Civilization, which existed around 2500 BCE. The people of this civilization were skilled in irrigation, and they grew crops such as wheat, barley, and cotton. After the Indus Valley Civilization, agriculture in India continued to be an important aspect of the economy during the Vedic period, with farmers growing a variety of crops including rice, sugarcane, and sesame. In the Vedic period, around 1500 BCE, agriculture was considered a sacred activity and was closely linked to religious rituals. The Vedas, ancient Hindu texts, contain detailed descriptions of agricultural practices, including ploughing, irrigation, and crop rotation. During the Mughal period, between the 16th and 18th centuries, agriculture in India experienced significant

development. The Mughals introduced new crops such as cotton, sugarcane, and fruits, and also built numerous canals and tanks to improve irrigation.

In the British colonial period, agriculture in India underwent significant changes. The British introduced new cash crops such as indigo, tea, and opium, which led to a decline in food crop cultivation and reduced food security for the population. After India's independence in 1947, the government implemented various policies and programs to modernize and mechanize the sector, increase productivity, and improve the overall welfare of farmers. However, despite these efforts, the sector still faces various challenges such as low productivity, inadequate infrastructure and technology, and issues related to land ownership and irrigation.



The Present condition of Agriculture

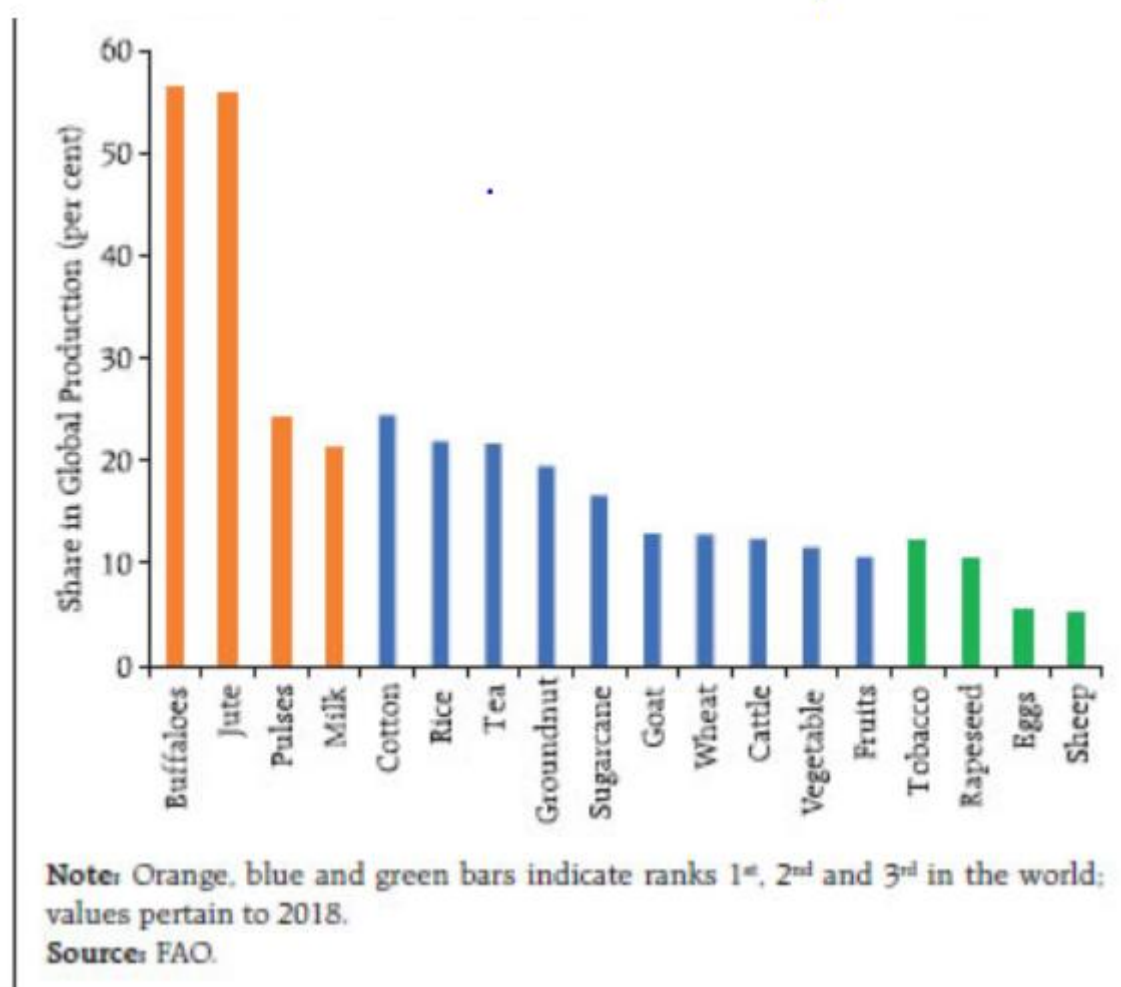
Agriculture is a vital sector in the Indian economy, as it employs around 50% of the country's workforce and contributes to around 17-18% of the country's GDP. Despite this, it remains a largely subsistence-based activity, and a large portion of the population still lives below the poverty line. The government has implemented various policies and programs to modernize and mechanize the sector, increase productivity and income for farmers, and improve the overall rural economy. However, the sector still face challenges such as low productivity, lack of infrastructure and technology, and issues related to land ownership and irrigation.

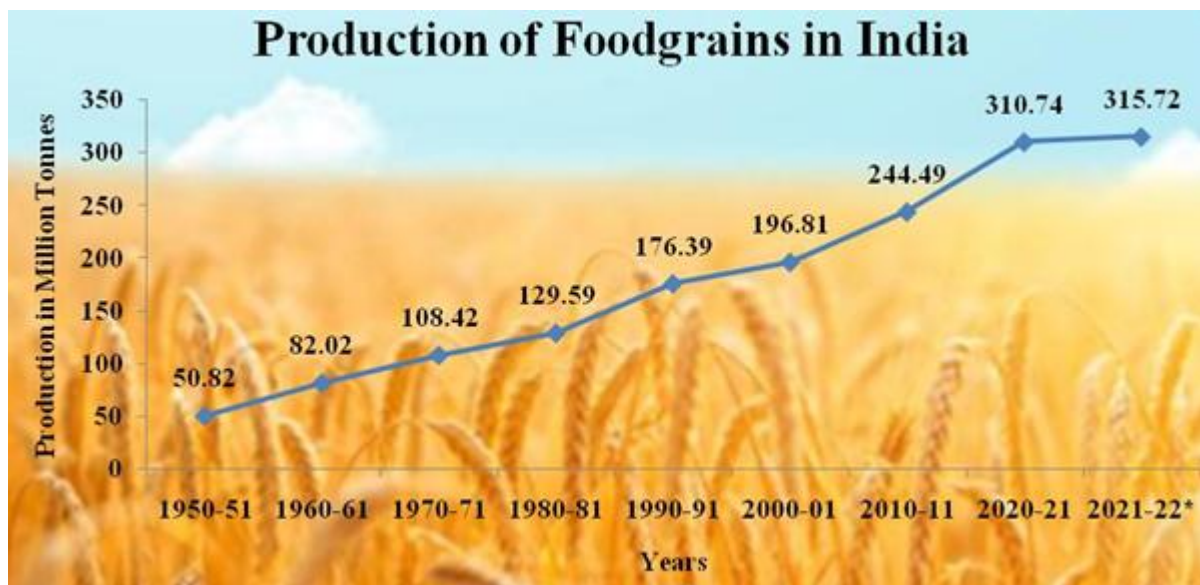
Role of Agriculture in the present world

Agriculture plays a crucial role in the present world by providing food and livelihoods for a growing global population, contributing to economic development, and preserving

natural resources. Additionally, it is also becoming increasingly important for meeting the demand for biofuels and other non-food products. However, it also face challenges such as climate change, land degradation, and declining biodiversity, which must be addressed to ensure sustainable food systems.

Agriculture plays a significant role in the world economy by providing employment, contributing to GDP, and providing raw materials for other industries. Additionally, agriculture helps to balance trade through the export of agricultural products and can also drive economic growth through investments in agricultural technology, infrastructure, and rural development. However, the sector also face challenges such as price volatility, market instability, and environmental degradation, which can negatively impact its economic performance and sustainability.





Future scope of Agriculture

The future of Agriculture is likely to be shaped by several key trends and technologies, including:

1. **Precision Agriculture-** use of advanced technologies like drones, sensors, and data analytics to optimize crop production and resource use.
2. **Smart farming-** integration of IoT, robotics, and AI to enhance farm productivity and efficiency.
3. **Sustainability-** Focus on environmentally-friendly practices and reducing agriculture's impact on the planet.
4. **Vertical farming-** use of controlled indoor environmentally-friendly practices and reducing agriculture's impact on the planet.
5. **Alternative protein sources-** development of new protein sources to meet growing demand for plant-based and lab-grown meat alternative.
6. **Gene Editing-** precision gene engineering to improve crop yields, resist pest and diseases and enhance nutritional content.
7. **Climate resilient crop-** development of crops that can withstand changing climate patterns and extreme weather conditions.

Overall, the future of agriculture will require a combination of technological innovation, sustainable practices, and effective collaboration between farmers, researchers, and policymakers.

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The Indian Express

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